

**IDENTIFYING BARRIERS TO THE
IMPLEMENTATION OF BUS POLICY AT A LOCAL
LEVEL IN GREAT BRITAIN USING A DECISION
SUPPORT FRAMEWORK**

Clare McTigue

B.Eng., M.Sc.



A thesis submitted in partial fulfilment of the requirements of
Edinburgh Napier University, for the award of
Doctor of Philosophy

Transport Research Institute

October 2018

Declaration

I hereby declare that this thesis is my own work and that, to the best of my knowledge and belief, is my work that I solely carried out at Edinburgh Napier University, except where due acknowledgement is made, and that neither the thesis nor the original work contained therein has been submitted to this or any other institution for a degree.

Clare McTigue

Date

Acknowledgements

I would like to take this opportunity to thank all the people who have supported me throughout this journey.

Without a doubt, my two supervisors, Professor Tom Rye and Dr. Jason Monios, have provided me with the greatest support, encouragement and guidance and I feel fortunate to have had the opportunity to be supervised by such talented and humorous individuals. Thank you for helping me to become an independent researcher, but above all, thank you for believing in me.

I would like to acknowledge the public transport officers who completed the questionnaires and telephone interviews. Without their support, this research would not be possible. I would also like to acknowledge the interviewees from each case study who generously shared their time to take part in the interviews.

To Michelle and Annie, who now know a lot more about bus policy than they probably ever wanted to – your thoughtfulness will always be remembered.

I would like to extend my gratitude and thanks to my parents, big brothers and friends who have supported me throughout this journey. Thanks to “The Old Gang” back home in Ireland – I’ve learned that true friendship continues to grow, even over the longest distance. Finally, I am most thankful to Juan who is my number one hero. Meeting you will be the greatest memory that I take from this journey.

Ní neart go cur le chéile.

To Francis and Geraldine –

Abstract

The current debate on transport policy in the UK is focused on the need for a sustainable transport system. Buses play a vital role in achieving this, as they are the most frequently used and most accessible mode of public transport. However, the literature shows that the delivery of sustainable transport policies is not producing the desired outcomes (Hull, 2009) and the application of such policies in real situations remains inconsistent. This is evident across the UK where there has been a decrease in bus patronage and bus mileage. To address this gap, the aim of this research is to identify why bus policies are not implemented successfully at a local level and to provide recommendations for implementation and decision making that will aid policy makers, local authority staff, regional transport partnerships, bus operating companies and other practitioners working within the field of transport.

A mixed methodology was chosen for this research and is divided into three key stages to address the research problem. The first methodology included an online questionnaire and 143 questionnaires were sent to all public transport officers in Great Britain. 80 surveys were returned giving a response rate of 56%. The second methodology included telephone interviews conducted with 10 of those public transport officers who responded to the questionnaire in order to elicit a deeper understanding of the results, which could not be achieved from the questionnaire results alone. Finally, the third methodology included four case studies on specific bus schemes within Great Britain. These case studies were the Quality Contract Scheme in Tyne and Wear, Fastlink Scheme in Glasgow, Bus Priority Scheme in Solihull and Smart Ticketing Scheme in Dundee. While the questionnaires and telephone interviews provide an overview of bus policy implementation across Great Britain, the multiple case studies were required to investigate the topic in depth, thus identifying the greatest barriers to bus policy implementation. Analysis of the three sets of data is based on the application of a new decision support framework developed in this research.

The findings in this thesis reveal that local authorities in Great Britain are underperforming in the implementation of bus policy due to the barriers they face. The greatest barriers to implementation include the lack of a policy document; the characteristics of

the organisation; availability of resources; intra-organisation support and communication; economic, social and political environments; and opposition, conflict, and ambiguities. Overall, this research has identified several concerns with bus policy implementation. The most obvious concern is the unclear link between policy objectives and measures and the setting and monitoring of performance targets. Meanwhile, the deregulation of the bus sector in the UK means that, in some cases, a lack of control over the implementation of certain measures places limits on policy implementation and results in the frequent implementation of policy measures that are achievable rather than those that are necessary to the achievement of policy objectives. The findings from this research also help policy-makers and transport planners to predict what makes implementation successful and to address problems and issues through improved policies and regulations, as well as to anticipate and plan for likely barriers. Moreover, addressing these barriers can help tackle the decline in bus mileage and bus usage across Great Britain.

List of publications

In accordance with Edinburgh Napier University regulations, a list of publications must be stated resulting from the research undertaken and the published material must be included with the submitted thesis. The following publications have arisen from the research and are reported in this thesis:

- McTigue, C., Monios, J., Rye, T. 2018. Identifying barriers to implementation of local transport policy: An analysis of bus policy in Great Britain. *Utilities Policy*, 50, pp.133–143.
- McTigue, C., Rye, T., Monios, J. 2017. The role of reporting mechanisms in transport policy implementation by local authorities in England. *Case Studies on Transport Policy*. (Accepted for publication on 10th December 2017).

Table of contents

Declaration.....	i
Acknowledgements	ii
Abstract.....	iv
List of publications.....	vi
List of figures.....	xii
List of tables.....	xiii
List of abbreviations	xv
Chapter 1: Introduction	1
1.1 Background and motivation.....	1
1.2 Geographical parameters and scope of this study	4
1.3 Research questions.....	5
1.4 Methodology	5
1.5 Research aim and objectives	6
1.6 Structure of thesis	8
Chapter 2: A historical review of bus policy	10
2.1 Introduction.....	10
2.2 Background to bus policy	11
2.2.1 England and Wales.....	12
2.2.2 Scotland.....	16
2.2.3 London	16
2.3 Bus policy in Great Britain	17
2.3.1 The study of bus deregulation in Great Britain	19
2.3.2 Transport policy implementation	20
2.3.3 Case study research on transport policy implementation	22
2.4 Summary.....	24

Chapter 3: Theoretical approaches to policy implementation.....	26
3.1 Introduction.....	26
3.2 Theoretical approaches to policy implementation	26
3.2.1 Top-down approaches	28
3.2.2 Bottom-up approaches.....	36
3.3 Summary	44
Chapter 4: Methodology.....	45
4.1 Introduction.....	45
4.2 Philosophical approach	45
4.3 Review of research methodology and research methods	47
4.4 Overall research approach.....	51
4.4.1 Desktop document review	51
4.4.2 Online questionnaire	54
4.4.3 Telephone interviews	55
4.4.4 Observations.....	56
4.4.5 Case studies	56
4.4.6 Pilot study.....	59
4.5 Data collection	60
4.5.1 Desktop document review	61
4.5.2 Online questionnaire	62
4.5.3 Telephone interviews	63
4.5.4 Observations.....	66
4.5.5 Case studies	66
4.6 Data analysis	71
4.7 Ethical considerations	74
4.8 Summary	75

Chapter 5: Online questionnaire results.....	76
5.1 Introduction.....	76
5.2 Questionnaire results.....	76
5.2.1 Local authority staff profile.....	77
5.2.2 Theme 1 – Policy documentation.....	79
5.2.3 Theme 2 – Policy responsibility.....	86
5.2.4 Theme 3 – Policy targets.....	89
5.2.5 Theme 4 – Performance monitoring.....	90
5.2.6 Theme 5 – Implementation barriers.....	91
5.3 Theoretical analysis of online questionnaire.....	94
5.4 Summary.....	98
Chapter 6: Telephone interview results.....	100
6.1 Introduction.....	100
6.2 Telephone interview results.....	100
6.2.1 Theme 1 – Policy documentation.....	101
6.2.2 Theme 2 – Policy responsibility.....	103
6.2.3 Theme 3 – Policy targets.....	106
6.2.4 Theme 4 – Performance monitoring.....	108
6.2.5 Theme 5 – Implementation barriers.....	111
6.3 Theoretical analysis of telephone interviews.....	115
6.4 Summary.....	120
Chapter 7: Case study results.....	124
7.1 Introduction.....	124
7.2 Case study 1 – Quality Contract Scheme, Tyne and Wear.....	125
7.2.1 Case narrative.....	125
7.2.1.1 Quality Contract Scheme (QCS).....	126
7.2.1.2 QCS proposal.....	127
7.2.1.3 QCS preparation.....	133

7.2.1.4 QCS outcome	136
7.2.2 Issues arising from the case.....	137
7.2.2.1 Issues with scheme design	137
7.2.2.2 Existing bus policy document, policy targets and monitoring of bus policies..	141
7.2.2.3 Policy Implementation and barriers to implementation	144
7.2.3 Theoretical analysis of Quality Contract Scheme	149
7.2.4 Summary of case study 1	158
7.3 Case Study 2 – Fastlink Scheme, Glasgow City	160
7.3.1 Case narrative.....	161
7.3.1.1 Statutory Quality Partnership (SQP).....	161
7.3.1.2 Fastlink proposal.....	164
7.3.1.3 Fastlink preparation.....	168
7.3.1.4 Fastlink outcome.....	171
7.3.2 Issues arising from the case.....	177
7.3.2.1 Issues with scheme design	177
7.3.2.2 Existing bus policy document, policy targets and monitoring of bus polices...	178
7.3.2.3 Policy implementation and barriers to implementation	181
7.3.3 Theoretical analysis of Glasgow Fastlink Scheme.....	184
7.3.4 Summary of case study 2	191
7.4 Case Study 3 – Lode Lane Route Enhancement Scheme, Solihull.....	194
7.4.1 Case narrative.....	194
7.4.1.1 Lode Lane Route Enhancement Scheme Proposal.....	195
7.4.1.2 Scheme Preparation.....	200
7.4.1.3 Scheme Outcome	208
7.4.2 Issues arising from the case.....	210
7.4.2.1 Issues with scheme design	210
7.4.2.2 Existing bus policy document, policy targets and monitoring of bus polices...	211
7.4.2.3 Policy Implementation and barriers to implementation	216
7.4.3 Theoretical analysis of Lode Lane Route Enhancement Scheme	220
7.4.4 Summary of case study 3	228
7.5 Case Study 4 – ABC Scheme, Dundee City	228
7.5.1 Case narrative.....	228

7.5.1.1 Smart ticketing and voluntary partnership agreements (VPA)	229
7.5.1.2 ABC Scheme proposal	232
7.5.1.3 ABC Scheme preparation.....	234
7.5.1.4 ABC Scheme outcome	236
7.5.2 Issues arising from the case.....	237
7.5.2.1 Issues with scheme design	237
7.5.2.2 Existing bus policy document, policy targets and monitoring of bus polices...	240
7.5.2.3 Policy implementation and barriers to implementation	245
7.5.3 Theoretical analysis of ABC Smart Ticketing Scheme	250
7.5.4 Summary of case study 4	257
7.6 Conclusion	257
Chapter 8: Theoretical synthesis and discussion	269
8.1 Introduction.....	269
8.2 Theoretical synthesis of results	269
8.3 Discussion of results	292
8.4 Policy implications.....	298
8.5 Summary	302
Chapter 9: Conclusions	303
9.1 Introduction.....	303
9.2 Summary of findings.....	304
9.3 Recommendations for policymakers and transport planners	313
9.4 Contribution to literature.....	315
9.5 Limitations of research	318
9.6 Recommendations for future research	319
References.....	322
Appendix A: Online questionnaire.....	335
Appendix B: Telephone interview questions	345
Appendix C: Case study questions	347

List of figures

Figure 1.1: Local bus journeys by country and regions	2
Figure 3.1: Policy Implementation Framework (PIF).....	33
Table 3.1: Top-down theorists and factors which influence implementation.....	34
Table 3.2: Analysis of top-down theoretical approaches	35
Figure 3.2: The Linear Model.....	40
Figure 4.1: Main modes of administration of a questionnaire survey.....	55
Figure 4.2: Case study design and procedure	69
Figure 5.1: Aggregating the rural urban classification.....	78
Table 5.11: Bus policy targets	90
Figure 7.1: Geographical location of QCS bus services	130
Figure 7.2: Stages in establishing a SQP	163
Figure 7.3: Clyde Fastlink route layout	167
Figure 7.4: Fastlink route connections.....	169
Figure 7.5: Aerial plan of a roundabout in Govan	170
Figure 7.6: Fastlink halt during construction	171
Figure 7.7: Lode Lane predicted journey saving times.....	198
Figure 7.8: LLRE Scheme area.....	201
Figure 7.9: Solihull MBC B425 route enhancement.....	202
Figure 7.10: Canal Bridge on Lode Lane.....	209
Figure 7.11: ABC Scheme and boundaries.....	233

List of tables

Table 2.1: First research objective	11
Table 3.1: Top-down theorists and factors which influence successful implementation.....	34
Table 3.2: Analysis of top-down theoretical approaches.....	35
Table 3.3: Bottom-up theorists and factors which influence implementation.....	42
Table 3.4: Analysis of bottom-up theoretical approaches.....	43
Table 4.1: Research methods used in the study of transport policy.....	49
Table 4.2: Summary of common research methods used in transport policy.....	50
Table 4.3: CSR design.....	57
Table 4.4: Telephone interviewees.....	65
Table 4.5: Decision table for case study selection.....	68
Table 5.1: Second research objective.....	76
Table 5.2: Returned questionnaires and location.....	77
Table 5.3: Completed questionnaires in regions vs local authority type.....	79
Table 5.4: Officer's involvement with bus policy.....	79
Table 5.5: Number of years written bus policy document in place.....	80
Table 5.6: Bus policy objectives.....	81
Table 5.7: Bus policy measures.....	82
Table 5.8: Cross-tabulation of bus policy objectives and measures.....	84
Table 5.9: Bus policy measures implemented as planned and without problem.....	88
Table 5.10: Identifying whether targets were met.....	89
Table 5.11: Bus policy targets.....	90
Table 5.12: Monitoring of bus policies and measures.....	91
Table 5.13: Barriers which have the greatest and least impact on implementation.....	92
Table 6.1: Second research objective.....	100
Table 6.2: Public transport officer name and local authority.....	101

Table 6.3: Theoretical analysis of questionnaires and telephone interviews.....	121
Table 7.1: Third research objective.....	124
Table 7.2: QCS interview participants.....	125
Table 7.3: Measures, benchmarks and targets.....	132
Table 7.4: QCS board decision.....	137
Table 7.5: Fastlink Scheme interview participants.....	161
Table 7.6: OBC budget construction costs.....	165
Table 7.7: Bus services in operation between QEUEH and Glasgow City Centre.....	174
Table 7.8: Fastlink Scheme monitoring plan.....	176
Table 7.9: LLRE Scheme interview participants.....	195
Table 7.10: Qualitative advantages and disadvantages of the 3 scenarios.....	205
Table 7.11: Cost estimate for the do-something option.....	206
Table 7.12: Modelled effects on patronage resulting from journey time reductions.....	207
Table 7.13: ABC Scheme interview participants.....	229
Table 7.14: ABC multi-operator ticket types.....	235
Table 7.15: Synthesis of case studies using decision support framework.....	259
Table 8.1: Fourth research objective.....	269
Table 8.2: Theoretical synthesis of questionnaires, telephone interviews and case studies.....	272
Table 9.1: Key findings from questionnaires and interviews.....	306
Table 9.2: Fifth research objective.....	313

List of abbreviations

ABC	All Bus Companies
ANPR	Automatic Number Plate Recognition
BCR	Benefit to Cost Ratios
BRT	Bus Rail Transit
CCTS	Clyde Corridor Transport Study
CPT	Confederation of Passenger Transport
CS1	Case Study 1
CS2	Case Study 2
CS3	Case Study 3
CS4	Case Study 4
CSR	Case Study Research
DCC	Dundee City Council
EDA	Economic Development Agency
ENU	Edinburgh Napier University
GBSLEP	Greater Birmingham and Solihull Local Enterprise Partnership
GCC	Glasgow City Council
GLC	Greater London Council
HS2	High Speed 2
ITA	Integrated Transport Authority
ITSO	Integrated Transport Smartcard Organisation
JLR	Jaguar Land Rover
KPI	Key Performance Indicators
LEP	Local Enterprise Partnership
LLRE	Lode Lane Route Enhancement
LRT	London Regional Transport
LTB	London Transport Buses
LTP	Local Transport Plan
LTS	Local Transport Strategy
MBC	Metropolitan Borough Council
NECA	North East Combined Authority
NEECC	North East England Chamber of Commerce
NEG	Network Enhancement Grant
NGOs	Non-Governmental Organisations
NHS	National Health Service
OBC	Outline Business Case
PIF	Policy Implementation Framework
PTA	Public Transport Authorities
PTO	Public Transport Officer
PTUG	Public Transport User Group

PwC	PricewaterhouseCoopers
QA	Qualifying Agreement
QC	Quality Contract
QCS	Quality Contract Scheme
QEUH	Queen Elizabeth University Hospital
RTPI	Real Time Passenger Information
RTS	Regional Transport Strategy
SAPT	Scottish Association for Public Transport
SBG	Scottish Bus Group
SEP	Strategic Economic Plan
SPT	Strathclyde Partnership for Transport
SQP	Statutory Quality Partnership
STPR	Strategic Transport Projects Review
TfL	Transport for London
TfWM	Transport for West Midlands
TRO	Traffic Regulation Order
TRRL	Transport and Road Research Laboratory
TS	Transport Scotland
VPA	Voluntary Partnership Agreement
WMCA	West Midlands Combined Authority

Chapter 1: Introduction

1.1 Background and motivation

Buses are the most frequently used and most accessible mode of public transport in Great Britain. They are essential for delivering economic, social and health benefits. In particular, bus services enable people to get from A to B and provide access to important services such as work, health and education. In some instances, bus services are the only available mode of transport for those without car ownership. Bus networks are also estimated to generate several billions in economic benefits by providing “access to opportunities, reducing pollution and accidents and improving productivity” (Urban Transport Group, 2016).

However, statistics released by Transport Scotland (2016), the Welsh Government (2016) and the UK DfT (2016) show a steady decline in bus mileage across Great Britain outside of London. In Scotland, vehicle kilometres have fallen by 12% over the past five years, while in Wales, the number of vehicle kilometres travelled by subsidised services has fallen by around a third since 2009-10 (Welsh Government, 2016). In England as a whole, mileage supported by local authorities decreased by 0.6% when compared with the previous year. According to DfT (2016), there was a 10% reduction in local authority supported services in England outside London, while commercial mileage increased by 1.4%. Furthermore, over the last decade in England outside of London, local authority supported mileage has decreased by 55 million miles, and commercial mileage has increased by 13 million miles. This is particularly evident where the percentage of bus mileage on supported services has decreased from 22% in 2004-05 to 17% in 2014-15.

Similar to bus mileage, there has also been a decline in bus usage, which has a damaging effect on the bus network. Additional statistics released by Transport Scotland (2016), the Welsh Government (2016), and the UK DfT (2016) show a steady decline in bus patronage across Great Britain outside of London. This is particularly noticeable where public transport patronage has more than halved from peak levels in the early 1950s (McConville, 1997). In Scotland, around 414 million passenger journeys were made by bus in 2014-15, a decrease of 2% on 2013-14 and a 15% fall from the latest peak in 2007-

08. In Wales, around 101 million passenger journeys were made by bus in 2014-15; however, the number of journeys decreased over the last six years. In England outside of London, around 2.28 billion passenger journeys were made by bus in 2014-15. Again, there has been a gradual decline in passenger numbers in recent years including a decrease of 1.3% on 2013-14. Figure 1.1 summarises the overall trends in local bus journeys by country, giving a clear indication that bus usage in London has risen as bus usage in England outside of London and in Scotland, and Wales has declined.

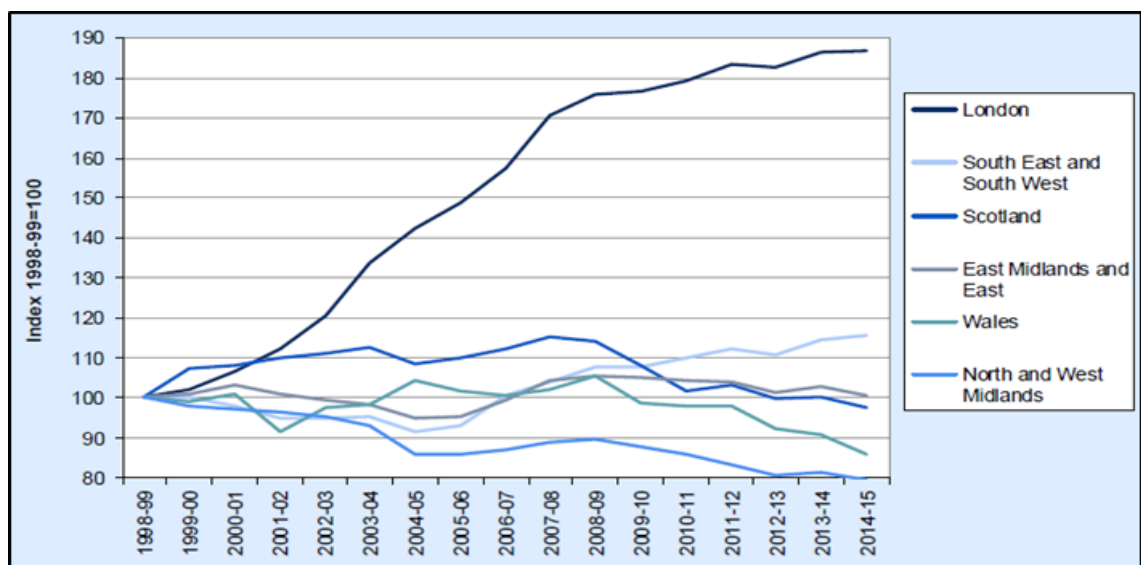


Figure 1.1: Local bus journeys by country and regions 1998-99 to 2014-15 (DfT, 2016)

A decrease in bus patronage and bus mileage has a damaging effect on the delivery of bus services across the UK. As well as having a negative impact on economic, social, and health benefits, quality of life suffers due to a lack of physical access to jobs, health, education, and amenities (Banister, 2000). To overcome the problems associated with the decline in bus patronage and bus mileage, local transport policies are needed in order to improve bus services for current and potential new users.

There have to date been no studies specifically addressing the implementation process of bus policies at a local level, however several studies have been carried out to identify the barriers to implementing sustainable transport policies at a local level. In 1995, the Institution of Civil Engineers published a review on transport policy and found that policy makers at a local level in the UK were concerned with how transport policy

was being implemented. The review concluded that there was a need for clarity, consistency and commitment from national government in its interactions with local government. It also found that the principal barriers to policy implementation included the fragmentation of local government and the privatisation of public transport; lack of consistency in policy over time; failure to integrate transport and land use planning; lack of funding; inconsistent distribution of finance; and a lack of powers for demand management measures (May, 1995). Another review published by ECMT (2002) found that the principal barriers to policy implementation were poor policy integration and coordination; counterproductive institutional roles; unsupportive regulatory frameworks; weaknesses in pricing; poor data quality and quantity; limited public support; and lack of political resolve.

The Department for Transport highlighted a number of weaknesses following the first round of Local Transport Plans (LTPs) including conflicts between transport plans and those for other public policy sectors, managerial and political barriers, lack of integration between transport and land use planning, a weak evidence base, limited expertise in setting targets, reluctance to share good practice, limitations of staffing and skills, and inappropriate financial and political structures (Atkins, 2005). The DISTILLATE research programme also carried out a study on policy implementation barriers and looked at six barriers deemed of particular importance to UK local authorities. The study found financial restrictions, staff shortages and divided responsibilities to be the most serious problems (Hull, 2009).

To overcome these policy implementation barriers, several research studies have attempted to investigate the best theoretical combinations of transport policies. The study of policy implementation has grown substantially since the late 1960s and many scholars have attempted to develop policy implementation frameworks to address the gaps that often occur between policy decision intent and policy performance, or implementation outcome. These frameworks are used to find out what makes a policy and its subsequent implementation successful, but also to eventually predict implementation success. The new decision support framework used for analysis in this research combines top-down and bottom-up perspectives. By applying this framework to an analysis of policy imple-

mentation reporting, it can not only be used to evaluate the quality of reporting in individual cases, but also reveal to what extent the reporting process is able to address all the required elements of policy implementation, and thus achieve its overall goal of aiding policymakers and planners. Being able to some extent predict what makes implementation successful helps policymakers address problems and issues through improved policies and regulations, as well as to anticipate and plan for likely barriers. This research will build on previous studies to produce recommendations for implementation and decision making that will aid local authority staff.

Two key research gaps emerge from the literature review presented in this thesis. Firstly, the implementation of bus policy at a local level has not been sufficiently explored; this is particularly relevant given the decrease in bus patronage and bus mileage has a damaging effect on the delivery of bus services across the UK. Secondly, there is an insufficient understanding surrounding bus policy implementation at a local level. This thesis aims to address these two key research gaps.

1.2 Geographical parameters and scope of this study

This research is focused specifically on the implementation of bus policy in Great Britain, outside of London. London has been excluded from this study because unlike the rest of Great Britain, buses in London are under the control of local government in the form of the elected Mayor and Greater London Assembly, and a transport agency known as Transport for London (TfL) (Preston and Almutairi, 2014).

It has also been decided to limit the geographical outlook of this study to Great Britain which includes England, Wales and Scotland. This natural geographical unit would allow for a comprehensive sample of the relevant local authorities and would avoid non-transport related political factors which might influence strategic decision making in Northern Ireland that would be beyond the scope of this thesis to analyse. The different structure of transport administration in Northern Ireland would also make it difficult to obtain reliable data on bus policy implementation. Therefore, British local authorities will be the units of investigation of this study, which includes Welsh County Councils, Scottish County Councils, English Unitary authorities plus the Isles of Scilly, English County Councils, and English Combined Local Authorities.

It was decided to consider buses rather than other modes of travel for the following reasons:

- Buses are the most frequently used and most widely available mode of transport.
- There are no studies that specifically address the implementation process for bus policies at a local level.
- It offers an interesting opportunity for comparing the influence of national government policies on local government implementation as buses are considered in local transport documents as an important mode of transport, however, there is no national bus strategy in the UK.

1.3 Research questions

The following research questions will facilitate in addressing the aim and objectives of this study as follows:

- 1. What are the current perceptions of public transport officers in Great Britain on issues associated with the implementation of bus policies?*
- 2. What factors have been barriers and enablers to the implementation of bus schemes within Great Britain?*
- 3. What are the greatest barriers to bus policy implementation at a local level, as identified through the analysis of the data collected in this research?*

1.4 Methodology

To help answer the research questions, a mixed methodology is adopted in this research and is divided into three key stages. The first methodology includes a self-completion questionnaire which has been administered via email to all 143 public transport officers in Great Britain, outside London. The second methodology includes telephone interviews conducted with 10 of those public transport officers from the questionnaire in order to elicit a deeper understanding of the results, which simply could not be achieved from the questionnaire results alone. Finally, the third methodology includes four case studies on

specific bus schemes within Great Britain. These case studies include the Quality Contract Scheme (QCS) in Tyne and Wear, Fastlink Scheme in Glasgow, Bus Priority Scheme in Solihull and Smart Ticketing Scheme in Dundee. While the questionnaires and telephone interviews provide an overview of bus policy implementation across Great Britain, the multiple case studies were required to investigate bus policy implementation in depth and were conducted with a range of representatives from each scheme, thus identifying the greatest barriers to bus policy implementation.

The data collected is specific to the implementation of bus policies at a local level, but with particular emphasis on cities that had previous involvement in bus projects or schemes. The analysis is based on the application of a new decision support framework to the three sets of data. The findings are then triangulated to form a complete whole. A multi-method approach was deemed the most appropriate methodological approach to answer the research questions for this research. This approach also increases the robustness of results because findings can be strengthened through triangulation – the cross-validation achieved when different kinds and sources of data converge and are found congruent (Kaplan and Duchon, 1988).

1.5 Research aim and objectives

The aim of this research is to identify barriers to implementation of bus policies at a local level in Great Britain.

Five specific research objectives have been identified as key steps required to meet the research aim, including:

1. To develop an understanding of bus policy and the impact bus deregulation and privatisation has had on implementing bus policy in Great Britain.

This objective seeks to understand bus policy in Great Britain by examining the legislation in place (including historical legislation). This includes a review of the legislation to understand the changes to the bus industry, which includes privatised bus companies and deregulated bus services outside London.

2. To understand the views and experiences of public transport officers regarding the key issues associated with the implementation of bus policies within Great Britain.

This objective seeks to use the findings of online questionnaires and telephone interviews conducted in Great Britain. This includes the views and experiences of local transport officers. It also seeks to understand areas of consensus and differences between respondents on a wide range of policy implementation issues.

3. To understand the views and experiences of key players/stakeholders regarding the challenges, enablers and barriers associated with the implementation of four different bus schemes within Great Britain.

This includes the views and experiences of key transport actors (officials from public bodies, public transport operators, local politicians and transport experts/stakeholders/interest groups) in the research process for four bus schemes in Great Britain. These case studies explore the success of these schemes to pinpoint challenges and barriers in the implementation of these schemes.

4. To build on theoretical literature and current views and experiences of key players/stakeholders to help improve the implementation of bus policy at a local level.

This objective draws on the results from the literature review and empirical analysis in order to obtain insights into current bus policy implementation and associated challenges. This includes theoretical analysis of the data collected to identify the key barriers to bus policy implementation at a local level in Great Britain.

5. To provide policy makers and transport planners with recommendations for effective implementation and better decision making when implementing bus policy at a local level in Great Britain.

This objective seeks to use the findings in this research to provide recommendations to help policymakers and transport planners to predict what makes implementation successful and to address problems and issues through better policies and regulations, as well as to anticipate and plan for likely barriers.

1.6 Structure of thesis

This thesis is divided into nine chapters. A summary of each chapter is presented below:

Chapter One explains the contextual background. It outlines the core issues related to the research problem and the justification for undertaking this study. It sets out the aims and objectives of this research, as well as the research questions which will facilitate in addressing the aim and objectives. This chapter also includes the scope and theoretical context, and contribution of this study.

Chapter Two provides a historical review of bus policy in Great Britain since the first UK road legislation was introduced in 1285. The purpose of this review is to place the research in a historical context and to show developments in bus policy to the present day. It critically reviews the current literature to identify any gaps in the existing knowledge, allowing this work to add value to the study.

Chapter Three explores theoretical approaches of policy implementation including top-down, bottom up and hybrid theories. Both top-down and bottom-up approaches are firstly analysed and then combined to distinguish a relationship between the two. This helps to identify emerging themes based on this analysis.

Chapter Four describes the methodologies and research methods that will be used in this study. It explains the process that will be adopted for the application of each method, its relevancy to this research and data analysis techniques. This chapter also includes a review of methodologies used in previous transport policy studies.

Chapter Five provides the results obtained in online questionnaire conducted in Great Britain. This includes the views and experiences of local transport officers on the delivery of bus policy in their area. The decision support framework is then used to analyse the data collected to determine the key issues associated with the implementation of bus policy at a local level.

Chapter Six discusses the results obtained in telephone interviews conducted with some of the public transport officers from the questionnaires to elicit a deeper understanding of the results. In line with questionnaires, the decision support framework is also used

to analyse the data collected to determine the key issues associated with the implementation of bus policy at a local level.

Chapter Seven presents the findings from four case studies that are based on previous bus schemes in Great Britain. This includes results from face-to-face interviews with key transport actors, which are then analysed using the decision support framework to determine the key issues associated with the implementation of bus policy at a local level.

Chapter Eight discusses and critiques the findings of this research. The data collected from the questionnaires, telephone interviews and four case studies will be combined for further theoretical analysis. The literature will then be included to compare and contrast the findings of this study.

Chapter Nine consists of conclusions and recommendations and provides a summary of the main findings. This is used to explain the importance of what has been discovered and to answer the thesis aim and research questions. It will highlight the limitations of the research and identify areas for further research. Finally, it will draw out the contribution of this research to existing knowledge.

Chapter 2: A historical review of bus policy

2.1 Introduction

Governments all over the world are concerned with transport and spend millions on improving the transport system. According to the World Bank, transport is central to development and without physical access to jobs, health, education and other amenities, the quality of life suffers (Banister 2000). Inappropriately designed transport systems can result in a network that excludes certain members of society, harms the environment and is detrimental to the economy (Banister, 2000). Therefore, it is absolutely critical to implement networks that encompass all three aspects to ensure that a successful system is created.

However, the governance and the delivery of sustainable transport policies are not producing the desired outcomes (Hull, 2009) and the application of such policies in real situations remains inconsistent. To explore this matter further, this research will focus in on the delivery of sustainable transport policies at a local level, and in particular bus policy. This is an important area of research as the previous chapter has indicated that a decrease in bus patronage and bus mileage has a damaging effect on the delivery of bus services across the UK.

This chapter will therefore explore this gap in research and will give provide a historical review of bus policy. The historical review is focused on examining bus policy in Great Britain since the first UK road legislation was introduced in 1285. The purpose of this review is to place the research in a historical context to show familiarity with state-of-the-art developments and to identify the likely directions for future research.

The Transport Act 1985 radically changed the bus industry by privatising the companies and deregulating services outside London. This chapter describes the effects of that legislation and discusses the impact of bus deregulation and privatisation has on bus policy. It will then explore several research studies, which have been carried out to identify the barriers to implementing transport policies at a local level. Being able to some extent predict what makes implementation successful helps local authority staff and policymakers address problems and issues through improved policies and decision making,

as well as to anticipate and plan for likely barriers. This chapter therefore aims to extrapolate what influences the success of implementation and to generalise that to the implementation of bus policy at a local level. It will also address the first research objective to help meet the aim of this thesis. Table 2.1 provides a recap of the first research objective.

Table 2.1: First research objective

Research Objective	
1	To develop an understanding of bus policy and the impact bus deregulation and privatisation has had on implementing bus policy in Great Britain.
	This objective seeks to understand bus policy in Great Britain by examining the legislation in place (including historical legislation). This includes a review of the legislation to understand the changes to the bus industry, which includes privatised bus companies and deregulated bus services outside London.

2.2 Background to bus policy

The first UK road related legislation was introduced in 1285, which was directly aimed at ensuring safe passage for travellers. This Statute was superseded by subsequent legislation from the 19th, through to the 21st centuries and has been responsible for managing and maintaining public highways (Webb & Webb, 1913).

The Local Government Act of 1888 (England and Wales) is another important legislation from the 19th century because it directly elected councils. This Act created 62 county councils, 61 borough councils and the London County Council. These new county councils then became responsible for the highways and maintenance, and remains broadly true to this day (Webb & Webb, 1913).

Meanwhile, in the 1880s, two other major developments were introduced to the United Kingdom – the first motor cars and the modern bicycle. Both cars and bicycles contributed to changing social habits by increasing the geographical distance individuals could travel in a shorter timeframe. These trends became increasingly popular up until the 1950s. However, prior to the explosion in car use from the 1950s, roads played a secondary role to other modes of transport and communications, such as intercity trams and railway systems, the telegraph/phone, cycling and walking (Dennis & Urry, 2009;

Hoyle & Knowles, 1998). The following sections provide a historical review of bus policy in England and Wales, Scotland and London.

2.2.1 England and Wales

In 1909, the Roads Board was set up to build new roads and maintain existing infrastructure. However, it failed to deliver spending targets and was replaced by the Ministry of Transport in 1919, which is now known as the Department for Transport (DfT). By 1930, the regulation of passenger-carrying motor vehicles was introduced by the Road Traffic Act 1930. The Road Traffic Act 1930 was an Act of the Parliament of the United Kingdom introduced by the Minister of Transport Herbert Morrison. This Act marked the beginning of the bus industry by introducing both quality and quantity regulation. Although there were two government reviews in 1953 and 1961, the Act remained unchanged until 1980 (Poole, 1995).

The Road Traffic Act 1930 established a system of road vehicle licensing which was controlled by regional Traffic Commissioners. This provided quality regulation for operators, vehicles and drivers, and quantity regulation for the number and types of services operated. It also provided licences to bus operators to run a service defined by a route and timetable and by accepted convention with a specified fare scale. Once the licence was granted, the operator had local monopoly rights and particularly where local services in urban areas were concerned.

The next key milestones in relation to bus regulations included the Local Government Act of 1972 and of 1973 (England and Wales). Following the introduction of these Acts, local authorities were responsible for sustaining public transport through revenue support payments, in line with their statutory obligations to provide co-ordinated public transport to meet the needs of their populations. The subsidy paid by local authorities and the urban Passenger Transport Authorities was vital for bus services in large parts of rural Britain and many commuter-based rail and bus networks in the conurbations. The level of support was based on factors such as the degree of rurality, bus operating costs, and councils' fares policies. Therefore, the supply of public transport in Britain from the 1960s and mid-1970s was strongly influenced by national and local government support. This

also included bus services being subsidised from Rate Support Grants in Scotland and Transport Supplementary Grants in England and Wales (Poole, 1995).

Although the structure of the bus industry had changed little over the 50 years up to 1980, the market in which it operated had changed dramatically with the rise of the car. For example, bus patronage halved between the 1960s and 1980s and there were increased operating costs, fares and levels of subsidy. Therefore, there was a need for:

- change to halt the continuing decline in bus services;
- significant improvements in efficiency and productivity, and reductions in operating costs and fares; and
- a transport subsidy system under which the amount for each service was clear.

This change in the market resulted in the Government moving towards deregulation to reduce the regulations in place concerning the organisation of the bus industry. In 1979, the Conservative Government of Margaret Thatcher came into power and developed policies to reduce subsidies to buses, to reduce the role of local government in planning and controlling bus systems and to increase competition between bus companies (Poole, 1995). This included the introduction of the Transport Acts 1980 and 1985 to deregulate the bus industry outside London.

Transport Act 1980

The Transport Act 1980 was an Act of Parliament in the United Kingdom. It introduced deregulation of coach services by lifting regulations on long distance bus services (for journeys of over 30 miles) for which road service licences were no longer required. The Act also allowed authorities to deregulate bus services on a trial basis and enabled them to set up "trial areas" where road service licences were no longer required and operators could run services on any routes they wished. A trial was carried out in three areas including Devon, Hereford and Worcester, and Norfolk and the Transport and Road Research Laboratory (TRRL) reported on these trials in 1984. They found that Hereford and Worcester had a substantial number of new operators and there was a reduction in revenue support paid by the County Council. Furthermore, there were dramatic reductions in fares and increases in services, however, there were problems caused by overcrowding by

buses in the town centre and the operation of the concessionary fare scheme. Finally, all three trials had shown reductions in revenue support, as well as lower fares and better levels of service while deregulation had provided opportunities for operators to experiment with new services (Butcher, 2010).

Transport Act 1985: deregulation

The 1985 Transport Act (part 1) deregulated the provision of bus services, which was published in the 1984 in the white paper “Buses” and other detailed consultation papers. This Act abolished road service licensing in Great Britain, outside London, from October 1986. The licensing system now involved a system of registration and removed the duties of local authorities to co-ordinate public passenger transport in their area. It also gave local authorities the power to subsidise public passenger transport services only on condition that they went out to open tender (Poole 1999). According to Mackie et al. (1995), the context at the time was strongly pro-car, against planning and against local authorities and any public bodies having more than a residual role. This Act therefore was seen as the main obstacle to planning integrated and easily understood public transport networks.

Poole (1999) pointed out that the Act resulted in the licencing authorities (the traffic commissioners) losing many of their former powers. Licenced bus operators were required to register its intention to set up a service with the traffic commissioner responsible for the area, giving at least 42 days' notice. However, the traffic commissioner, in special circumstances, could shorten the period of notice on request at their discretion. Subsequent variation or withdrawal of the service also required this period of notice. In order to register a new service, the bus operator had to provide the traffic commissioner with information on the proposed route, on the terminal points, timetable and stopping arrangements, and on the vehicles to be used. The operator is then obliged to run the service according to the specification in the registration. Furthermore, the operator was responsible for the timetable and the introduction of new services, depending on the operator's opinion of the demand for it and its commercial viability. Meanwhile, there was no requirement in the Act for the commercial bus operator to consult before making changes to the timetable and the position of bus stops. In addition, registration did not include any

reference to public demand or to existing services and objections could no longer be made by other operators or local authorities.

Public Transport Authorities (PTA) and county councils were given powers to secure, using subsidy, socially necessary services which were not provided by the commercial market. The bus operators also had the right to participate in concessionary fare schemes and the PTA had powers to force participation in the schemes. They would then be reimbursed for the net financial loss incurred by participating in the scheme.

The 1985 Transport Act also abolished the concept of network support. As a result, a bus company could register any service which it chose to operate on a commercial, i.e. unsupported, basis. Furthermore, if there were social needs not met by commercial services then the local authority could invite competitive tenders for additional routes or journeys on a case by case basis (Butcher, 2010)

Transport Act 1985: privatisation

At the same time proposals were also put forward to change the structure of the bus industry through privatisation. While deregulation would increase competition through an increase in the number of competitors, privatisation, in itself, would not necessarily increase competition. Instead, privatisation was seen by the Conservative Government to be a means of achieving a more committed management and better access to private capital (Butcher, 2010).

Prior to 1985, the bus industry was dominated by public sector companies. Six English metropolitan counties, Greater Glasgow and the vast majority of urban bus services were planned, funded and operated by PTAs. Meanwhile, other cities and towns had municipal bus companies under the control of the relevant district council in England and Wales, or the regional council in Scotland. The remaining urban services and a high proportion of inter-urban and rural routes were operated by subsidiaries of the state owned National Bus Company (NBC) in England and Wales, and by the Scottish Bus Group (SBG) subsidiaries in Scotland.

Part 3 of the 1985 Act required the sale of the National Bus Company subsidiaries to the private sector. Therefore, the company was reorganised into 72 separate companies

and then sold to the private sector or to management and/or employee buy-outs by April 1988. This included 40 companies bought by management or employee teams, while many of the sales included provision for employee share schemes or profit-sharing schemes (Butcher, 2010). Butcher (2010) further pointed out that gross proceeds of the NBC privatisation amounted to £323 million, resulting in a net surplus to the Government of £89 million after all debts and privatisation expenses had been accounted for. Meanwhile, The House of Commons Public Accounts Committee did not believe this was an accurate value and 10 bus companies were sold between September 1994 and January 1995 for £233 million (£218 million net). The National Audit Office concluded that the key objectives of the sale had all been achieved and that it had raised £30 million more than the original indicative offers (Butcher, 2010).

Section 75 of the 1985 Act also gave local authorities the power to dispose of their bus undertakings, subject to the Secretary of State's approval. Portsmouth City Council was the first municipal bus company to sell its bus operation in June 1988 and by 1997 only seven per cent of passenger services were attributable to the municipal bus companies (Butcher, 2010).

2.2.2 Scotland

In contrast to England and Wales, the Scottish Bus Group (SBG) operated the buses and coaches in Scotland. However, similar to England and Wales, long distance journeys were deregulated by the Transport Act 1980 and local bus services were deregulated in October 1986 by the Transport Act 1985. Although the NBC were responsible for drawing up plans for its privatisation, SBG did not follow the same procedure. It was not until 1988 that the SBC announced the privatisation of the company. Meanwhile, the Transport (Scotland) Act 1989 restructured the SBG into 10 separate independent bus companies before being privatised. The sales were then completed by October 1991 (Butcher, 2010).

2.2.3 London

In London, buses were governed by the London Regional Transport Act 1984, which transferred responsibility for the bus network from the Greater London Council (GLC) to London Regional Transport (LRT). This Act required London Transport to set up operating subsidiary companies to run bus and underground services. As a result, London

Buses Ltd was created in 1985. Meanwhile, in 1993, the Government announced that it would defer the previously intended deregulation of buses in London, although privatisation of the bus operating subsidiaries of London Transport would proceed. The role of London Transport Buses (LTB) was to determine the level and structure of fares to be charged, determine the general structure of bus routes and their frequency of operation, provide and maintain the infrastructure, promote customer information and develop technology and ensure operators deliver safe, reliable and clean buses (Butcher, 2010).

2.3 Bus policy in Great Britain

To address the concerns with the implementation of bus policy at a local level, this section explores the current situation regarding bus policy in Great Britain, while the subsequent section explains the impact of bus deregulation. This is followed by a review of literature which examines previous studies which have been carried out to address the gaps that often occur between policy decision intent and policy performance, or implementation outcome.

Under the regulatory framework for local bus services in Great Britain outside London, bus operators are almost all private for-profit companies, and all of them are free to set routes, fares, and timetables as they see fit. This situation is unusual in developed countries; the findings of this research are nonetheless relevant to other regulatory environments. Whenever responsibilities for service planning, strategy, operations, and infrastructure, for example, are split between different organisations (as is the case in most Nordic countries), or even between different parts of the same organisation (the case in major cities in Slovenia, for example), there is scope for strategic policy objectives not to be realised.

Currently, bus policies are included in the Local Transport Plans (LTPs) and Local Transport Strategies (LTSs) of local authorities in England and Scotland, respectively. The first round of these LTPs were submitted by English local authorities in 2001, while LTSs were submitted by Scottish local authorities in 2000. The introduction of the LTS by Scottish local authorities was voluntary compared to LTPs in England which were made a statutory requirement by the 2000 Transport Act (although this requirement was repealed in 2017). LTPs and LTSs support local authorities to help improve their current

bus services (as well as other modes of transport such as walking and cycling, and policy areas such as road safety) and achieve a modal shift from the automobile. According to Scottish Government (2005), local bus networks are more likely to be successful if there is “a close working partnership between the local authority and the bus operators.” These partnerships are vital to overcoming key barriers to bus services in terms of “traffic demand management,” “congestion reduction,” “bus priority measures,” “the provision of accessible buses,” “simplified fare structures,” and “route branding.”

Guidance on LTPs associated with the 2000 Act also required English authorities to produce annual monitoring reports to show how their LTPs were progressing. At the end of the first five-year LTP period in 2006, a lengthy Delivery Report was produced to show what had and had not been implemented, and why, over the previous five years. By contrast, Scottish authorities had no statutory requirement to monitor the progress of their LTS. However, the Local Transport Act 2008 in England removed this system of close monitoring of LTPs. Furthermore, the act also removed the requirement to produce a separate bus strategy. With the abolition of annual monitoring reports and a separate bus strategy, there are currently no statutory requirements in place for local authorities to monitor the performance of local bus services in the UK.

Several studies have highlighted the importance of monitoring LTPs and LTSs. Spear and Lightowler (2005) carried out a study on delivering LTSs in Scotland at the end of the first five-year Scottish LTS period. They summarised lessons learned from the English LTPs which would be useful for preparing and monitoring future LTSs in Scotland. However, they suggested that the absence of a systematic LTS annual reporting process made it more difficult to assess how Scottish authorities have used their LTSs to deliver improvements on the ground, contribute to their objectives or offer value for money for the resources provided. Furthermore, the absence of LTS annual monitoring also meant the problems with LTSs could not be addressed. Another study by McTigue et al. (2017) compared the LTP 2001-2006 and the LTP Delivery Report for three English cities to obtain an insight into the importance of reporting in the implementation of local bus policy. A lack of policy resources was identified as a key barrier to implementation, while key aspects, such as communication and support within the organisation, were not

being documented by local authorities. This, in turn, limited the ability of local authorities to monitor the reasons for successful implementation or lack thereof.

2.3.1 The study of bus deregulation in Great Britain

Although no studies specifically address the implementation process for bus policies at the local level, several studies have explored bus deregulation in Great Britain and its impact on the sector. White (1995, 1997) examined the short-term impact of deregulation and found that while the cost per kilometre operated had fallen, patronage had also fallen and profitability only remained marginal. Another study by White (2010) examined the conflict between competition policy and the wider role of the local bus industry in Great Britain since deregulation, exploring issues such as the removal of previous restrictions on routes, service levels and fares and a reversal of the previous emphasis on coordination of services.

A study by Preston and Almutairi (2013) examined bus deregulation and the long-term impact it had on the sector, using demand, cost, and fares models. They found that London (where deregulation is not in place) shows a positive pattern of welfare gains; however, passengers received fewer benefits when the subsidy was reduced. By comparison, there is a negative pattern with welfare impacts outside London, and the study concludes a regulated bus service like that in London would be more appropriate. Preston and Almutairi (2014) re-evaluated this position and found a considerable welfare loss. Another study by Preston (2016) looked at the impact of bus deregulation in Wales in the mid-1980s, showing a decrease in bus trips and vehicle mileage, a rise in fares and operating costs, and a decrease in subsidy. The study concludes that for urban parts of Wales, the implementation of a Bus Rapid Transit scheme to complement the existing rail network would help improve the barriers associated with bus deregulation. For rural areas, the study indicates that a lack of funding has prevented the development of more flexible public transport services and therefore proposes the implementation of other reforms such as Quality Contracts, Quality Partnerships, and Community Partnerships.

Van de Velde and Wallis (2013) examined the longer-term impact of deregulation in Great Britain and New Zealand and partial deregulation in Sweden. While they suggest there is no clear-cut evidence yet on what is the best deregulated regime, their research

highlights some success in terms of patronage growth at a local level. This success is dependent on the co-existence of a favourable public transport policy that places limits on automobile use by means of parking charges, pedestrian-only zones, and extensive park-and-ride facilities. Finally, a study by Van de Velde and Augustin (2014) suggests that where deregulation is sustained as a regime, and performance improvement depends on avoiding repetition the simplistic and dogmatic interpretations that dominated earlier implementations. They believed a more balanced view would need to be developed based on theoretical considerations and a thorough review of experience, in terms of performance itself and the mechanisms that lead to performance.

2.3.2 Transport policy implementation

Other studies have examined various modes of transport policy to identify the barriers to developing and implementing sustainable transport policies. These studies include mixed data-collection methods such as questionnaires, telephone interviews, and face-to-face interviews with key individuals who are knowledgeable or experienced with dealing with transport policy. For example, Lindholm and Blinge (2014) assessed the knowledge and awareness of sustainable urban freight transport among Swedish local authority policy planners. A questionnaire was completed by the planners, and the results identified a “lack of coordination, sufficient resources and effective knowledge transfer among stakeholders in urban freight transport” as key barriers related to freight policy implementation. Similarly, Ballantyne et al. (2013) carried out 74 interviews with local authorities and freight stakeholders in northern Europe to examine a variety of cities on urban freight transport, and their inclusion of urban freight stakeholders in local authority transport planning. The study concluded that the issues local authorities face also occur in other countries and are “not unique to one country or specific category.” Therefore, a generic policy framework is recommended to help overcome the barriers associated with the interaction between local authorities and freight stakeholders.

Some scholars have also explored the barriers related to developing and implementing incentives related to climate policy. Gössling et al. (2016, p.83) carried out interviews with 12 European policy officers on the objectives of climate policy in the transport sector. The study identified key barriers associated with emissions include a “lack of political leadership,” “resistance from member states,” “favouring of economic growth over cuts

in greenhouse gas emissions,” “pressure from industry and lobby groups,” “policy implementation delays,” “insufficient forecasting and monitoring tools,” and “overreliance on technologies.” Another study on climate policy by Argyriou et al. (2012, p.87) explored the progress of UK local authorities and the barriers they face in developing and implementing climate policy initiatives. The main barriers to these policy initiatives include a “lack of time, resources and difficulties in engaging with the wider community.” They concluded that local authorities need to exchange knowledge on climate change and that the effectiveness of these policies can be monitored more closely through UK sub-national statistics data.

Several studies have examined the role of policy implementation in travel plan policies. For example, De Gruyter et al. (2015, p.34) carried out a series of interviews with 30 transport representatives, primarily from industries in Australia, to develop new initiatives to improve travel plans for new residential developments. The key barriers identified with implementing travel plans were a “lack of enforcement,” “uncertainty over implementation responsibilities,” and a “general lack of ownership.” Similarly, a study by Ison and Rye (2003) assessed travel plans and road user charging with respect to a theoretical framework developed by Gunn (1978) and found that this framework fails to cover all the essentials for policy implementation such as “monitoring,” “a policy champion,” “political stability,” “trust in terms of the parties' involved,” “consideration of public relations,” and “careful timing.” Gaffron (2003) carried out a questionnaire survey with UK local transport authorities on issues related to walking and cycling. The three most important factors hindering policy implementation included a “lack of funding,” “lack of staff,” and “lack of time.”

These studies show that barriers related to policy implementation at a local level are not restricted to one category and indeed are similar across different transport policy sectors and modes such as freight, climate, travel plans, road user charging, walking, and cycling. These studies underscore the barriers associated with developing and implementing transport policies and the importance of developing mechanisms to prevent these barriers from arising. The next section explores previous case studies which have been carried out on transport policy implementation.

2.3.3 Case study research on transport policy implementation

Many scholars across the world use case studies to address the gaps that often occur between policy decision intent and policy performance, or implementation outcome. For example, a study by Mulley and Reedy (2015) examined the way in which the connections between research and policy are made (or not made) between transport researchers and transport policy-makers using NSW, Australia as a case-study. This involved previous research conducted in NSW to provide quantitative and qualitative evidence on the needs of researchers, policy makers and other interested parties in NSW. It also helped to identify perceived barriers to making connections between the evidence base that exists and transport policy for relevant stakeholders. The study concluded with recommendations which emerged from the NSW case study as well as an exploration of the relevance of structural change, such as a government backed Strategic Research Agenda to create a transmission mechanism for evidence based public transport policy.

Another study was carried out by Bray et al. (2011) where 43 transport strategies published for the five largest cities in Australia between 1965 and 2010 were reviewed. This review consisted of observations from a survey of public servants in the policy and strategy divisions of the state and territory transport agencies. One key objective of this research was to identify from where policy lessons are learnt by using a framework by Dolowitz and Marsh (2000). The study found that there was little published evidence on the performance of previous strategies being critically examined.

A case study by Olsson et al. (2015) combines a backcasting study of urban road transport with an analysis of current policy processes in Stockholm, Sweden. The combination is used to help bridge the implementation gap between scenario-based research and actual policy implementation and thus increase the chances of research being implemented in practice. The study identified the need for diverse fuels and vehicles and for immediate policy action. Furthermore, the policy analysis demonstrated that, given current policy structures, this is difficult to implement. The results of this study identified a mismatch between problem definitions and policy goals, and therefore suggested that poor policy integration could hamper development towards a more sustainable transport system.

In the UK, a study by Ison and Rye (2003) analysed travel plans and road user charging with respect to a theoretical framework developed by Gunn (1978). The framework sets out 10 conditions, which should be satisfied if perfect implementation is to be achieved. The study analysed the model of implementation first proposed by Gunn against the empirical experience of attempts to implement travel plans and road user charging. This highlighted the most important aspects of the implementation process of both, however, the study found that Gunn's conditions do not cover all the essentials of implementation where travel plans and road use charging are concerned. These other factors were found to be a need for monitoring, a policy champion, political stability, trust in terms of the parties' involved, consideration of public relations and careful timing.

Further case studies were carried out in the UK where Marsden and May (2006) reported the results of an investigation of the effects of institutional structure on transport policymaking in three UK cities (London, West Yorkshire, and Edinburgh) with very different current institutional arrangements and past experience. The results show that despite several attempts at local government reorganisation in the United Kingdom, there was continuing institutional barriers to the pursuit of sustainable urban transport strategies, and a need to develop conurbation-wide authorities, to introduce franchise-based management of public transport services and fares, and to avoid inconsistencies in the allocation of funding to larger capital schemes and to revenue-funded projects. The study did, however, conclude that experience from London suggests that a combination of the right powers and institutional structure, flexible funding, and a strong political champion can achieve significant improvements in a short period of time.

De Gruyter et al. (2015) carried out a case study to identify opportunities to enhance the impact of travel plans for new residential developments in Australia. A series of interviews provided insight on their perceived advantages and disadvantages, levels of involvement and stakeholder interactions, implementation challenges and potential solutions, and future expectations. The results showed general support among industry representatives for travel plans at new residential developments, but limited confidence in the ability to implement them. By applying the interview findings to implementation theory, the study identified opportunities to enhance the implementation process and subsequent outcomes of travel plans at new residential developments.

Furthermore, a study was carried out by Ariffin and Zahari (2013) to analyse the implementation of policy and administration of urban transportation system in the Klang Valley, Malaysia. This area was chosen due to its phenomenal growth in the last two decades that affected the administration of its urban transportation system. Interviews were conducted which found that the practices, attitudes and beliefs of those working in the transport related field have shed some light on the relationship between agencies and the impact that these have upon transportation system in the Klang Valley. The study also found that the lack of synergy in the implementation and administration of the system has taken its toll on the efficiency and effectiveness of the system.

Finally, a study was carried out by Tuominen and Himanen (2007) to explore the potential of a target analysis method in acting as a link between policy objectives, targets, measures and their implementation to intensify the policy process. The study suggested this method can be quite useful in bringing transport policy targets closer to policy implementation by considering policy measures to meet the targets and their acceptance as a part of the target or objective analysis process. The study therefore concluded that the target analysis presented could act as an originator for a more open, interactive and particularly systematic process in transport policy formulation, leading through social learning into a more successful implementation of policies.

These case studies provide exemplars of in-depth investigations into policy implementation and reveal many challenges. The next section explores the theoretical approaches to policy implementation meant to overcome these challenges.

2.4 Summary

This chapter has provided a historical review of bus policy and has examined bus policy in Great Britain since the first UK road legislation was introduced in 1285. The purpose of this review was to place the research in a historical context and to show developments in bus policy to the present day.

This chapter has also presented the gaps in literature associated with the implementation of bus policy at a local level. Firstly, the literature has revealed many studies which have been carried out to identify the barriers to implementing transport policies at a local

level. However, a gap appeared in the literature where it was found bus policy implementation has not been sufficiently explored. This is particularly concerning given the decrease in bus patronage and bus mileage, and the damaging effect this has on the delivery of bus services across the UK.

Chapter 3: Theoretical approaches to policy implementation

3.1 Introduction

The previous chapter provided a literature review on bus policy in Great Britain and the impact bus deregulation has on bus policy. It also identified a set of research gaps and opportunities that will become the focus of this chapter.

This chapter begins with the study of policy implementation, which evolved during the late 1960s. It examines the theoretical approaches to implementation and focuses on both top-down and bottom-up theoretical approaches. Both approaches are firstly analysed and then combined to distinguish a relationship between the two. This will help to identify emerging themes based on this analysis. The study of policy implementation is particularly relevant given the issues associated with implementing bus policy as discussed in the previous chapter.

3.2 Theoretical approaches to policy implementation

The theory of policy implementation has evolved through three generations. The first generation ranged from the early 1970s to the '80s; the second generation from the 1980s to the '90s; and the third generation from 1990 and onwards (Matland, 1995a, 1995b). The first generation looked at the problems associated with policy implementation, i.e. uncertain relationship between policies, decisions and implemented programmes. Similarly, the second generation focused on the development of an analytical framework of implementation, which includes the top-down and bottom-up perspectives. The third generation is based on implementation theory-building, which has not yet been realised (Pau-del, 2009).

The three generations of implementation research can be subdivided into three distinct theoretical approaches to the study of implementation:

1. Top-down models put their main emphasis on the ability of decision makers to produce unequivocal policy objectives and on controlling the implementation stage.

2. Bottom-up critiques view local bureaucrats as the main actors in policy delivery and conceive of implementation as negotiation processes within networks of implementers.
3. Hybrid (synthesis) theories try to overcome the divide between the other two approaches by incorporating elements of top-down, bottom-up and other theoretical models.

During the first generation, there was less emphasis on theory building, whereas the second generation began to put forward a whole range of theoretical frameworks and hypotheses. It soon became apparent that concerns shifted from the “what” of policy outcomes to the “why” of perceived policy failure, with more focus on the actual process of translating policy into action: the process of implementation (Barrett, 2004).

During the second generation, theorists on implementation were divided into two camps. Those who embraced the top-down perspective believed that centralised policy-makers should be as clear as possible with their goals, minimize the number of bureaucrats a policy depends on, and limit necessary change. Bottom-up theorists argue that having more freedom to implement a policy will ward off job dissatisfaction and allow policies to be more adaptive to local conditions. It can therefore be seen that the two approaches vary in several areas, such as the role of actors and their relationships and the type of policies they can be applied to.

During the third generation, several researchers have synthesised elements of both top-down and bottom-up approaches to produce new hybrid theories and models. These theories and models are developed to combine elements of both sides to avoid the conceptual weaknesses of top-down and bottom-up approaches. For example, Elmore (1985) developed an idea to combine the concept of “backward mapping” with “forward mapping”, where policy makers should start with the consideration of policy instruments and available resources for policy change (forward mapping), but they should also identify the incentive structure of implementers and target groups (backward mapping). Matland (1995a, 1995b) developed an “ambiguity and conflict model” which combined top-down and bottom-up perspectives and identified how ambiguity and conflict affect policy im-

plementation. Furthermore, Goggin et al. (1990) developed a model which included variables from both top-down and bottom-up approaches and was based on the communications theory perspective of intergovernmental implementation.

This research will contribute further to the study of theoretical approaches of policy implementation. This will become more apparent in the following sections where literature on both top-down (section 3.2.1) and bottom-up (section 3.2.2) approaches will be examined. It will also reveal emerging themes based on these approaches, which will be used to develop a new decision support framework for this research.

There was no existing hybrid theory that really included all the factors that were hypothesized to be important. Most of the hybrid theories reviewed tended to focus too much on one or two explanatory factors rather than the broad range that were felt to be important, after having read the existing literature on the topic. In particular, even theorists such as Winter (1990) and Elmore (1985) tended to place greater emphasis in their hybrid models on the more bottom-up elements whereas it was felt by the author that certain top down elements, particularly availability of resources and organisational capacity, were not emphasised sufficiently. For this reason, a new decision support framework was developed for this research.

3.2.1 Top-down approaches

Top-down frameworks suggest that centralised policymakers should be as clear as possible with their goals, minimize the number of bureaucrats on which a policy depends, and limit necessary change (Matland, 1995). Four key theorists embraced this approach: Pressman and Wildavsky (1973), Van Meter and Van Horn (1975), Gunn (1978), and Sabatier and Mazmanian (1981).

Pressman and Wildavsky (1973):

Pressman and Wildavsky (1973) carried out a study on the implementation of public policies. Most of their work was based on theories about Economic Development Agency (EDA) projects in Oakland-California funded by the U.S. federal government in 1965. They found the following five points to be essential for policy implementation:

1. Implementation should not be divorced from policy and must not be conceived as a process that takes place after, and independent of, the design of policy.
2. Designers of policy must consider direct means for achieving their ends.
3. Consider carefully the theory that underlies your actions.
4. Continuity of leadership is important for implementation.
5. Simplicity in policies is much to be desired.

The work of Pressman and Wildavsky (1973) did not attempt to construct an explicit theoretical model of the implementation process. Instead, their observations provided clear indications of some of the key elements that should be consciously applied by public administrators. They considered the policy process to be unidirectional because policies were first designed or formulated by leaders and then carried out through intermediary implementers. They believed there was a close relationship between policy design and implementation. As a result of this, Pressman and Wildavsky (1973) wanted to change the “classical” theory by calling for integration, rather than the separation, of policy formations and policy implementation (Nangpuhan, 2015).

Van Meter and Van Horn (1975):

Van Meter and Van Horn (1975) proposed a six-variable model for analysing policy implementation. They argued that the gaps that often occur between policy decision intent and policy performance, or implementation outcome, are impediments of policy implementation. Van Meter and Van Horn (1975) therefore believe their model would enable policy analysts to explain observed policy outcomes and policy makers can utilise that information to improve the delivery of public services. The Van Meter and Van Horn (1975) model features six factors: the first three factors focus on the policy and the second three factors concentrate on aspects of the policy’s implementation.

1. The first factor of the model examines the policy itself in four categories: statutory goals and objectives, the background of the policy, definition of key terms, and the policy’s target groups.

2. The second factor of the model explores the policy's resources including funding appropriations, technical or legal assistance offered in the law, and political support for the law itself.
3. The third factor of the model deals with policy enforcement and compliance which details what compliance means in the context of the law, what institutions are involved, and delineates sanctions for not non-compliance.
4. The fourth factor of the model investigates characteristics of the implementing agency, including its bureaucratic structure, type of managerial power, organisational culture, and intergovernmental relations with other agencies and stakeholders.
5. The fifth factor of the model considers economic, social, and political conditions as a factor affecting policy implementation, including the general economic environment, prevailing societal ideologies, public opinion and media attention, and political support and/or opposition.
6. The sixth factor of the model evaluates the disposition of implementers, including his or her cognitive ability and willingness to understand the policy, his or her technical expertise, his or her level of support for the policy, and values like efficiency, effectiveness, equity, ethics, and empathy.

Gunn (1978):

Gunn (1978) published a seminal article titled "Why is implementation so difficult?". This article sets out 10 conditions that should be considered if perfect implementation is to be achieved for a particular policy. These 10 conditions include:

1. There are no crippling external circumstances.
2. Adequate time and resources are available.
3. The necessary resources are available as needed during implementation.
4. The policy is based on a valid theory of cause and effect.

5. Cause and effect are closely linked.
6. A single agency can control the whole programme, with minimal dependency on others.
7. Everyone involved agrees on the objectives.
8. It is possible to specify in advance who needs to do what, and when.
9. All those involved communicate and co-ordinate well throughout.
10. Those in authority can obtain obedience throughout.

These 10 conditions highlight the important issues that need to be addressed if the intentions of the policy makers are to be realised. They provide a top-down approach to policy implementation whereby getting everything in the right place so that those at the top can ensure that those at the bottom do the right thing.

However, Ison and Rye (2003) point out that Gunn's conditions do not cover all the essentials of implementation. They believe there is a need for monitoring, a policy champion, political stability, trust in terms of the parties involved, careful consideration of public relations and careful timing. Also, they believe Gunn's framework may require to be enhanced, both by the addition of further objectives, and then prioritising these objectives. This enhanced framework could then be used to analyse other areas of transport policy. For example, Charles (2005) followed on from the work of Ison and Rye (2003) to analyse the implementation of traffic incident management in the Brisbane metropolitan region.

Sabatier and Mazmanian (1981):

Sabatier and Mazmanian (1981) developed their top-down theoretical framework for analysing policy implementation in the early 1980's. This framework applies many statutory and non-statutory variables to five identified stages in the policy implementation process, as shown in Figure 3.1.

The PIF addresses policy implementation issues: (1) the extent to which implementing officials and target groups act consistently with the objectives and procedures outlined in the policy decision; (2) the extent to which policy objectives are attained; (3) the principal factors affecting policy outcomes and impacts; and (4) the policy's reformulation, if any. According to Sabatier and Mazmanian (1981), the crucial role of implementation analysis is to identify the variables that affect the achievement of the policy objectives throughout the process. These variables can be divided into three broad categories: (1) the material variables associated with the problem(s) being addressed, (2) the structural dimensions that influence the implementation process, and (3) the net effect of a variety of contextual variables to support the policy. Sabatier and Mazmanian (1981) in turn apply these three independent variables to five stages of policy implementation. However, Sabatier and Mazmanian (1981) point out that the timeframe for appropriately applying the PIF is between twenty and thirty-five years.

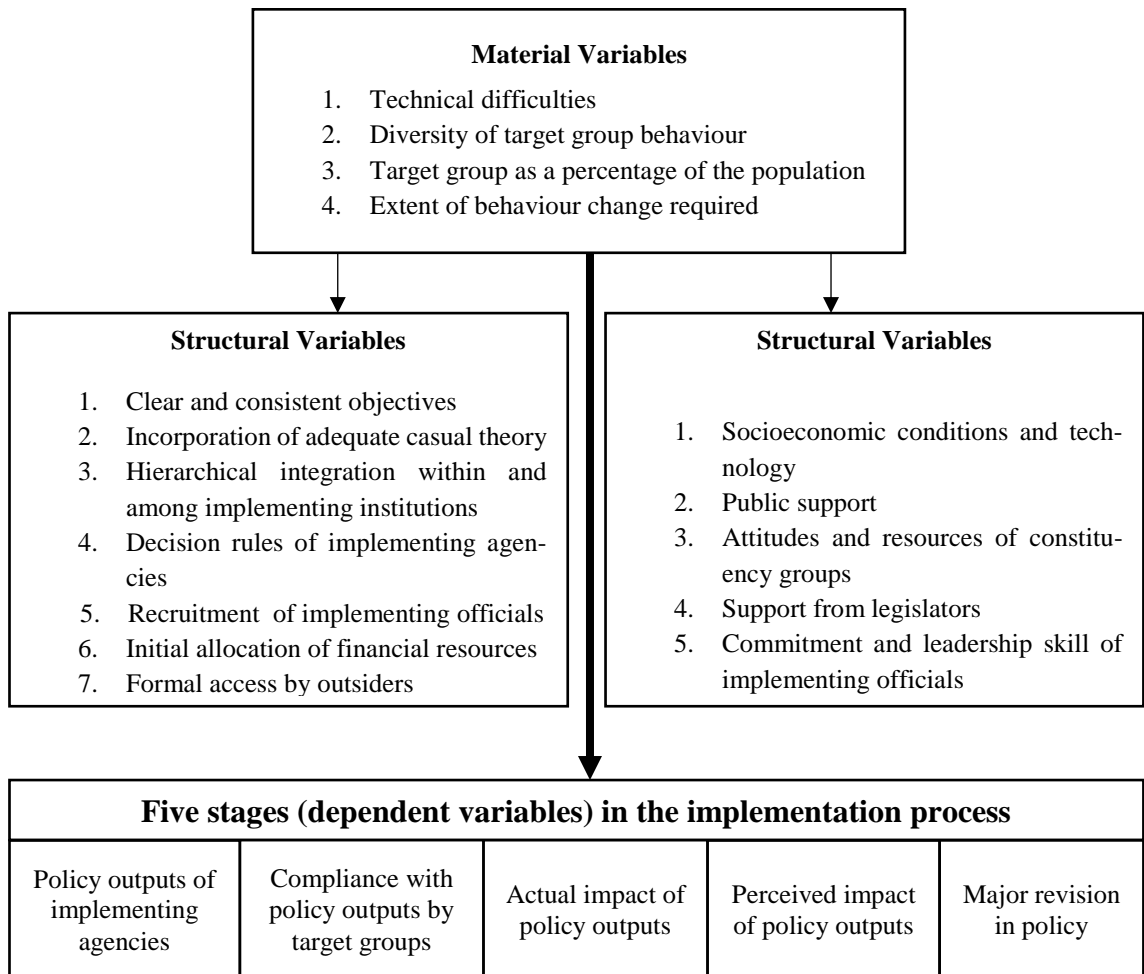


Figure 3.1: Policy Implementation Framework (PIF) (Elson, 2006)

Table 3.1 presents a summary of the top-down approaches by Pressman and Wildavsky (1973), Van Meter and Van Horn (1975), Gunn (1978), and Sabatier and Mazmanian (1981). This includes the factors which influence implementation based on their work.

Table 3.1: Top-down theorists and factors which influence implementation

Theorist	Factors which influence implementation
Pressman and Wildavsky (1973)	<ol style="list-style-type: none"> 1. Implementation should not be divorced from policy and must not be conceived as a process that takes place after, and independent of, the design of policy. 2. Designers of policy must consider direct means for achieving their ends. 3. Consider carefully the theory that underlies your actions. 4. Continuity of leadership is important for implementation. 5. Simplicity in policies is much to be desired.
Van Meter and Van Horn (1975)	<ol style="list-style-type: none"> 1. The first factor examines the policy itself in four categories: goals and objectives, the background of the policy, definition of key terms, and the policy's target groups. 2. The second factor explores policy resources such as funding, technical or legal assistance, and political support. 3. The third factor deals with policy enforcement and compliance in the context of the law, what institutions are involved, and delineates sanctions for non-compliance. 4. The fourth factor investigates characteristics of the implementing agency, including its bureaucratic structure, type of managerial power, organisational culture, and intergovernmental relations with other agencies and stakeholders. 5. The fifth variable considers economic, social, and political conditions as a factor affecting policy implementation. 6. The sixth variable evaluates the disposition of implementers, including the motivation and attitudes of those responsible for implementing the reform.
Gunn (1978)	<ol style="list-style-type: none"> 1. There should be no crippling external circumstances. 2. Adequate time and resources are available. 3. The necessary resources are available as needed during implementation. 4. The policy is based on a valid theory of cause and effect. 5. Cause and effect are closely linked. 6. A single agency can control the whole programme, with minimal dependency on others. 7. Everyone involved agrees on the objectives. 8. It is possible to specify in advance who needs to do what, and when. 9. All those involved communicate and co-ordinate well throughout. 10. Those in authority can obtain obedience throughout.
Sabatier and Mazmanian (1981)	<ol style="list-style-type: none"> 1. Clear and consistent objectives. 2. Adequate causal theory. 3. Implementation process legally structured to enhance compliance by incorporating officials and target groups. 4. Committed and skilful implementing officials. 5. Support of interest groups and sovereigns. 6. Changes in socio-economic conditions that do not undermine political support or causal theory.

Six themes have been identified from the top-down approach, including policy standards and objectives; availability of resources; intra-organisation support and communication; characteristics of organisations; economic, social and political environments; and policy champions. These themes are now used to examine the theories and models proposed by top-down scholars for successful policy implementation. Table 3.2 presents the analysis of the top-down theoretical approaches.

Table 3.2: Analysis of top-down theoretical approaches

Critical Variable	Theorist
1 Policy standards and objectives	There needs to be clear and consistent objectives and the priority of objectives should not be undermined over time by conflicting public policies or changes in socio-economic conditions (S&M). The policy implemented must be based upon a valid theory of cause and effect; the relationship between cause and effect must be direct and there must be few, if any, intervening links; there must be complete understanding of, and agreement upon, the objectives throughout the implementation process; and tasks should be fully specified in correct sequence (Gunn). Implementation requires (1) statutory goals and objectives; (2) the background of the policy; (3) definition of key terms; and (4) the policy's target groups (VM&VH). Implementation is an interaction between the setting of goals and actions geared to achieve those (P&W).
2 Availability of resources	Adequate time and sufficient resources must be made available; the required combination of resources must be actually available; and tasks must be fully specified in the correct sequence (Gunn). Policy resources should include appropriate funding (VM&VH) and (P&W).
3 Intra-organisational support and communication	Policy needs to be supported by organised constituency groups with few key legislators throughout the process (S&M). There needs to be consistent inter-organisational communication and enforcement activities (P&W). There must be perfect communication and co-ordination between participants (Gunn). Technical advice and assistance should be offered in the law, and political support for the law itself; and superiors should rely on positive and negative sanctions (VM&VH).
4 Characteristics of the organisations	The implementation process needs to be legally structured to enhance compliance; and leaders and implementing agencies require significant managerial and political skills and commitment to the goals

	(S&M). There should be minimal dependency relationships between implementing agencies (Gunn). Both formal structural features of organisations and informal attributes of their personnel are important (P&W). These include bureaucratic structure, type of managerial power, organisational culture, and intergovernmental relations with other agencies and stakeholders (VM&VH).
5 Economic, social and political environments	The circumstances external to the implementing agency must not impose crippling constraints (Gunn). Economic, social, and political conditions as a factor affecting policy implementation should be considered (P&W), including the general economic environment, prevailing societal ideologies, public opinion and media attention, and political support and/or opposition (VM&VH). The support of interest groups and sovereigns are essential for implementation; it is important that changes in socio-economic conditions do not undermine political support or causal theory; and the priority of objectives is not undermined over time by conflicting public policies or changes in socio-economic conditions (S&M).
6 Policy champions	There must be perfect communication and co-ordination between participants; and those in authority must be able to demand and obtain perfect compliance (Gunn). Committed and skilful implementing officials are required for implementation; and leaders and implementing agencies require significant managerial and political skills and commitment to the goals (S&M). Implementing agencies should express his or her cognitive ability and willingness to understand the policy, his or her technical expertise, his or her level of support for the policy, and values like efficiency, effectiveness, equity, ethics, and empathy (VM&VH) and (P&W).

Note: S&M refers to Sabatier and Mazmanian; VM&VH refers to Van Meter & Van Horn; P&W refers to Pressman and Wildavsky

3.2.2 Bottom-up approaches

Bottom-up frameworks emphasise target groups and service deliverers, arguing that policy is made at the local level (Matland, 1995a, 1995b). Five key theorists embraced this approach: Lipsky (1971, 1980), Hjern et al. (1978), Elmore (1980), Rein (1983), and Grindle and Thomas (1990).

Lipsky (1971, 1980):

The theory proposed by Lipsky (1971, 1980) is that "policy implementation in the end comes down to the people who actually implement it". Lipsky (1971, 1980) believes that

bureaucrats operate at “street level” which include teachers, social workers, public lawyers, police officers, judges, health workers, and other public employees who provide services, enforce the law, and distribute public benefits to citizens directly. Lipsky (1971, 1980) also claims that these bureaucrats are in effect, “policy makers”. For this reason, Lipsky (1971, 1980) is often cited as the founder of the bottom-up policymaking perspective. He also argued that state employees should be seen as part of the "policy-making community" and as exercisers of political power.

The street-level bureaucrats are considered to have a clearer understanding of what clients need as they have direct contact with the public. Lipsky’s (1971, 1980) theory therefore focuses on the discretionary decisions that each street-level bureaucrat makes in relation to individual citizens when they are delivering policies to them. This discretionary role in delivering services or enforcing regulations makes street-level bureaucrats essential actors in implementing public policies. A summary of the bottom-up approach by Lipsky (1971, 1980) includes the following;

- The essential contradiction: street-level bureaucrats are expected to adhere to routines and bureaucratic procedures that ensure that all citizens are treated equally, while being responsive to unique, individual circumstance.
- Street-level bureaucrats are “policy makers” due to the inherent discretion involved in their interactions with the public and the astonishing impact that their decisions have on the lives of citizens.
- Disillusioned with their ability to meet their own goals, street-level bureaucrats develop coping mechanisms, which are often unsanctioned by the agencies that employ them.
- Lipsky (1971, 1980) does not advocate for or against the discretion of street-level bureaucrats. He just acknowledges that it exists.

Hjern et al. (1978):

The most extensive empirical work within the bottom-up tradition has been carried out by Hjern et al. (1978). The theory proposed by Hjern et al. (1978) was to study a policy

problem, asking micro-level actors about their goals, activities, problems, and contacts. This technique enabled Hjern et al. (1978) to map a network that identified the relevant implementation structure for a specific policy at the local, regional, and national levels, and to evaluate the significance of government programs and other influences such as markets. This technique also identified strategic coalitions as well as unintended effects of policy and the dynamic nature of policy implementation. The theory developed by Hjern et al. (1978) found that central initiatives were poorly adapted to local conditions. Program success depended in large part on the skills of individuals in the local implementation structure who can adapt policy to local conditions. This theory provides a mechanism for moving from street level bureaucrats up to the policy-makers in both the public and private sectors.

Elmore (1980):

Elmore (1980) adopts a bottom-up approach to implementation analysis, which is defined as backward mapping. Elmore (1980) identified four main ingredients for implementation: (1) clearly specified tasks and objectives that accurately reflect the intent of policy; (2) a management plan that allocates tasks and performance standards to subunits; (3) an objective means of measuring subunit performance; and (4) a system of management controls and social sanctions sufficient to hold subordinates accountable for their performance. According to Elmore (1980), one of the most important features of policy implementation is the “process by which policies are translated into administrative actions” and “the translation of an idea into action involves certain crucial simplification.” Elmore further points out that “virtually all public policies are implemented by large public organisation” and “organisations are simplifiers; they work on problems by breaking them into discrete, manageable tasks and allocating responsibility for those tasks to specialised units”. Finally, Elmore (1980) believes failures of implementation are, by definition, lapses of planning, specification and control.

Rein (1983):

Rein (1983) put forward a theoretical perspective of implementation and questioned the controllability of policy implementation using the concept of puzzlement and conflict. Rein (1983) stated that “implementation is understood as a declaration of government

preferences, mediated by a number of actors, who create a circular process characterised by reciprocal power relations and negotiations”. Rein (1983) specifies three types of primary actors in the implementation process including;

1. Guideline developers,
2. Interest groups, and
3. Programme administrators.

Furthermore, Rein (1983) believes that policy implementation is a matter of puzzlement where;

1. Front-line worker don't know what is expected of them;
2. There are insufficient resources available; and
3. Front line workers are incompetent and lack the knowledge and skill to carry out tasks.

This theoretical perspective by Rein (1983) suggests that there is a downward spiral of puzzlement where unclear and incompatible policies are passed down to those at a lower level. As a result, everyday practitioners become responsible for dealing with these issues but become ever more “puzzled” about how to do so.

Grindle and Thomas (1990):

Grindle and Thomas (1990) also argue that the top-down models are ineffective. They suggest an interactive model is required for implementation, which is a long-term process of decision-making and antagonistic reaction (bottom-up). According to Sutton (1999), this model is the most widely-held view of the way in which policy is made. It also outlines policy-making as a problem solving process which is rational, balanced, objective and analytical.

The complex framework put forward by Grindle and Thomas (1990) describes policy development that includes an agenda phase, a decision phase, and an implementation phase (Figure 3.2). At each stage, the framework suggests that a decision can be made for

or against the policy. For example, an issue can either be put on the policy agenda or not put on the agenda. At the decision phase, the decision can be for or against policy reform. At any of the three stages, a policy either continues to move toward successful implementation, or else it is derailed. The framework consists of the following phases:

- Recognising and defining the nature of the issue to be dealt with;
- Identifying possible courses of action to deal with the issue;
- Weighing up the advantages and disadvantages of each of these alternatives;
- Choosing the option which offers the best solution;
- Implementing the policy; and
- Evaluating the outcome.

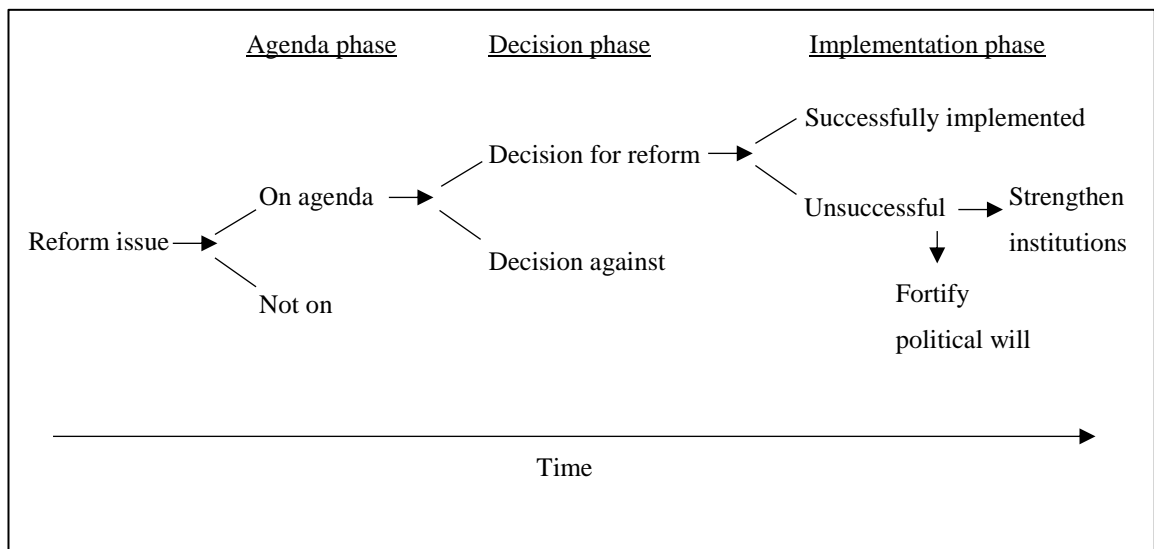


Figure 3.2: The Linear Model (Grindle and Thomas, 1990)

Grindle and Thomas (1990) updated the linear model and produced an interactive model. A central element in the interactive model is that a policy reform initiative may be altered or reversed at any stage in its life cycle by pressures and reactions from those who oppose it. Grindle and Thomas (1990) pointed out that “unlike the linear model, the interactive model views policy reform as a process, one in which interested parties can

exert pressure for change at many points understanding the location, strength and stakes involved in these attempts to promote, alter, or reverse policy reform initiatives is central to understanding the outcomes”.

Table 3.3 presents a summary of the bottom-up approaches of Lipsky (1971, 1980), Hjern et al. (1978), Elmore (1980), Rein (1983), and Grindle and Thomas (1990). This includes the factors which their work argues have an influence on implementation.

Four themes have been identified from the bottom-up approach, including bureaucratic power; collaboration and interaction between those involved in the policy process; policy remodelling; and opposition, conflict and ambiguities. These themes are then used to examine the theories and models proposed by bottom-up scholars for successful policy implementation. Table 3.4 presents the analysis of the bottom-up theoretical approaches.

Table 3.3: Bottom-up theorists and factors which influence implementation

Theorist	Factors which influence implementation
Lipsky (1971, 1980)	<ol style="list-style-type: none"> 1. Street-level bureaucrats are expected to adhere to routines and bureaucratic procedures to ensure all citizens are treated equally, while being responsive to unique, individual circumstance. 2. Street-level bureaucrats are policy makers due to the inherent discretion involved in their interactions with the public and their decisions have an impact on the lives of citizens. 3. Disillusioned with their ability to meet their own goals, street-level bureaucrats develop coping mechanisms, which are often unsanctioned by the agencies who employ them.
Hjern et al. (1978)	<ol style="list-style-type: none"> 1. Central initiatives are poorly adapted to local conditions. 2. Programme success depends on the skills of individuals in the local implementation structure who can adapt policy to local conditions. 3. Services are more likely to be delivered by implementation structures than a single lonely organisation. 4. The policy process is more likely to be self-selected than designed through authoritative relationships.
Elmore (1980)	<ol style="list-style-type: none"> 1. There needs to be clearly specified tasks and objectives that accurately reflect the intent of policy. 2. A management plan that allocates tasks and performance standards to subunits should be in place. 3. There should be an objective means of measuring subunit performance. 4. There needs to be a system of management controls and social sanctions sufficient to hold subordinates accountable for their performance.
Rein (1983)	<ol style="list-style-type: none"> 1. Front-line worker must know what is expected of them. 2. There needs to be insufficient resources available. 3. Front line workers must be competent and have the knowledge and skill to carry out tasks.
Grindle and Thomas (1990)	<ol style="list-style-type: none"> 1. The framework proposed by Grindle and Thomas (1991) consists of an agenda phase, decision phase, and implementation phase. At each stage, the framework suggests that a decision can be made for or against the policy. At any of the three stages, a policy can either move towards successful implementation or be removed. The phases are of the framework include: 2. Recognising and defining the nature of the issue to be dealt with; 3. Identifying possible courses of action to deal with the issue; 4. Weighing up the advantages and disadvantages of each of these alternatives; 5. Choosing the option which offers the best solution; 6. Implementing the policy; 7. Possibly evaluating the outcome.

Table 3.4: Analysis of bottom-up theoretical approaches

Critical Variable	Theorist
1 Bureaucratic power	Decisions and actions do more to influence outcomes than policies and programmes set by the top (Lipsky). Programme success depends in large part on the skills of individuals in the local implementation structure who can adapt policy to local conditions (Hjern).
2 Collaboration and interaction between those involved in the policy process	Specific types of primary actors in the implementation process include (1) guideline developers; (2) interest groups; and (3) programme administrators (Rein). Services are likely to be delivered by implementation structures than a single lonely organisation (Hjern). Features of policy implementation include the process by which policies are translated into administrative actions and the translation of an idea into action which involves certain crucial simplification. Virtually all public policies are implemented by large public organisations where they work on problems by breaking them into discrete, manageable tasks and allocating responsibility for those tasks to specialised units (Elmore).
3 Policy remodelling	Policy development includes an agenda phase, a decision phase, and an implementation phase. At each stage, the framework suggests that a decision can be made for or against the policy. For example, an issue can either be put on the policy agenda or not put on the agenda. At the decision phase, the decision can be for or against policy reform. At any of the three stages, a policy either continues to move toward successful implementation, or else it is derailed (G&T). When policy is unclear and incompatible, each successive stage in the process of implementation provides a new context for seeking further clarification. One of the consequences of passing ambiguity for an inconsistent legislation is that the arena of decision making shifts to a lower level. As a result, the everyday practitioners become the ones who resolve the lack of consensus through their concrete actions (Rein).
4 Opposition, conflict and ambiguities	Policy implementation be a matter of puzzlement where programme administrators and front-line works do not know what is required of them, the resources at hand are insufficient for the task and workers lack the knowledge and skill to take action (Rein). Street-level bureaucrats develop coping mechanisms to deal with the challenges brought about by inadequate resources, few controls, indeterminate objectives, and discouraging circumstances. Street-level bureaucrats develop patterns of practices, such as routines and stereotyping, to limit demands on their time and resources. They modify the concept of their job to narrow the gap between objectives and resources and they modify the concept of their clients to render the inevitable gap between objectives and accomplishments (Lipsky).

Note: Hjern refers to Hjern et al; G&T refers to Grindle and Thomas.

3.3 Summary

The literature has revealed that there has been extensive research into policy implementation since the late 1960's and many scholars have attempted to develop policy implementation theories and models to address the gaps that often occur between policy decision intent and policy performance, or implementation outcome. Ten key themes have been identified to address these gaps, including policy standards and objectives; availability of resources; intra-organisation support and communication; characteristics of organisations; economic, social and political environments; policy champions; bureaucratic power; collaboration and interaction between those involved in the policy process; policy remodelling; and opposition, conflict and ambiguities.

However, it was found that no existing hybrid theory included all the factors that were hypothesized to be important. Therefore, a new decision support framework is proposed in this thesis, which consists of theoretical elements of both top-down and bottom-up approaches identified in section 3.2.1 and section 3.2.2.

The next chapter presents the methodological approaches adopted for this study. Once the data is collected for this study, the literature and the proposed decision support framework can then be applied to enrich the analysis of the data collected.

Chapter 4: Methodology

4.1 Introduction

This chapter will discuss the research approaches, methods used, process adopted for data collection and data analysis techniques employed for undertaking this research. Ethical considerations will also be addressed, followed by a set of concluding remarks to set the scene for the subsequent chapters of this study.

4.2 Philosophical approach

A research paradigm is a belief system and set of practices that guides researchers on how problems should be understood and addressed. According to Guba (1990), research paradigms can be characterised by ontology (What is reality?), epistemology (How do you know something?) and methodology (How do go about finding out?).

The research paradigm adopted for this study depends on the general philosophy which underpins the research activity. According to Mikkelsen (2005), the academic ‘position’ for a study is crucial for the focus of the study, for the questions asked, for decisions on data to be collected, and for intended results of analysis. The most common academic ‘positions’ in the social sciences are positivism, constructivism and realism.

1. Positivism advocates the application of the methods of the natural sciences to the study of social reality and beyond (Bryman, 2001). It assumes that there are patterns and regularities, causes and consequences, in the social world just like there are in the natural world (Denscombe, 2003).
2. Constructivism/interpretivism requires the social scientist to grasp the subjective meaning of social action (Bryman, 2001). It regards people as creative interpreters of events, and through their actions and interpretations they are ‘agents’ who actively create an order to their existence (Denscombe, 2003).
3. Critical realism asserts that the study of the social world should be concerned with the identification of the structures that generate the world. Practitioners aim to

identify structures in order to change them, so that inequalities and justices may be counteracted (Bryman, 2001).

Positivist researchers use quantitative tools and techniques that emphasise measuring and counting. They assume that reality is fixed, directly measurable and knowable and that there is just one truth and one external reality. In contrast to this, naturalist researchers prefer the qualitative tools of observation, questioning and description. They assume that reality constantly changes and can be known only indirectly through the interpretations of people. They also accept the possibility that there are multiple versions of reality (Rubin and Rubin, 2011).

From identifying the various philosophical approaches, this study utilised a naturalistic approach and took place within an interpretive research model. A naturalistic approach was chosen since the purpose of this research is to explore, understand and explain a current situation (Bryman 2001). The research was conducted in a natural setting and employed qualitative methods in the data collection and analysis stages, constantly comparing emerging patterns and themes and interpreting them. A case study approach was also chosen as it follows naturalistic modes of inquiry because the main objective is to discover the relationship between different interpretations and build an understanding of the meaning of experiences.

The interpretative paradigm emphasises the importance of understanding the social world by examining the participants' perspective and how they construct meaning in natural settings (Bryman, 2001; Neuman, 2003). This research aims to identify perceptions, feelings and views of the key actors involved in bus policy implementation at a local level. This qualitative approach was a suitable choice in this study because qualitative methods lend themselves to research that attempts to understand the complex nature of people's experiences, feelings and emotions, which are difficult to measure using quantitative methods (Strauss and Corbin, 1997). Moreover, qualitative research is concerned with understanding the nature of the problem and allows an in-depth analysis (Yin, 2003).

This research followed both inductive and deductive approaches. According to Bryman and Bell (2011, p13), the inductive approach consists of a researcher using their own

findings or observations to make up a theory. Saunders et al (2009, p.61) suggests that when literature is reviewed in the inductive approach, it is for the researchers to find something to connect their own theory to. This research therefore followed an inductive approach to begin with. This was evident in chapter 2 where a review of literature was conducted to identify the gaps associated with bus policy implementation, followed by the development of a decision support framework based on theory identified in this review of literature. This research also followed a deductive approach. A deductive approach contrasts with an inductive approach and aims to test a theory or to test hypotheses derived from findings or observations (Bryman and Bell, 2011, p13). Hence, this research followed a deductive approach because it examined the implementation of bus policy using the existing decision support framework predetermined in this chapter.

4.3 Review of research methodology and research methods

Yin (2012) points out that research questions are the suggested starting points of a research study because they provide important clues about the substance that a researcher is aiming to assess. Therefore, three research questions were devised in this research to assess the barriers to implementing bus policies at a local level. To help answer these research questions, it was important to connect a research methodology and an appropriate set of research methods (Wahyuni, 2012). Research methodology and research methods are two distinctive concepts. Jonker and Pennink (2010) provide a useful example for explaining these concepts and suggest a methodology is a domain or a map, whereas a method refers to a set of steps to travel between two places on the map.

Kaplan (1973) suggests a methodology can be considered as the discipline of applying appropriate research methods for specific pieces of research. Kothari (2004) also suggests the methodology helps to describe the stages of the research and to decide upon the best means of addressing the research problem. As there are several key stages in this research, a mixed methods research approach was adopted. Mixed methods research is a methodology for conducting research that involves collecting, analysing and integrating quantitative (e.g., surveys) and qualitative (e.g., interviews) research. This approach to research is used when this integration provides a better understanding of the research problem than either of each alone. This approach was therefore considered appropriate as

a single method would not be capable of achieving all of the research objectives outlined in chapter one of this thesis.

Once a mixed methodology was chosen for this research, it was then necessary to choose an appropriate set of research methods. To help select these research methods, previous studies were examined to identify methods that were adopted in similar studies. However, as previously mentioned in chapter 1 of this thesis, there are no studies which have specifically addressed bus policy. Therefore, these studies were established in the literature review in the broader context of transport policy. Moreover, these studies have been carried out to review, explore and analyse issues related to the implementation of transport policy. The methods used in these studies are listed in table 4.1:

Table 4.1: Research methods used in the study of transport policy

Research Method	Author
Observations	Bray et al (2011)
Desk review on policy documents and reports	Ison and Rye (2003); White (1995, 1997, 2010); Spear and Lightowler (2005); Preston and Almutairi (2013, 2014); McTigue et al. (2017)
Questionnaires	Gaffron (2003); Lindholm and Blinge (2014); McTigue et al. (2017)
Interviews and focus group discussions with transport experts and key stake holders	Marsden and May (2006); Tuominen and Himanen (2007); Argyriou et al. (2012); Ariffin and Zahari (2013); Ballantyne et al. (2013); Van de Velde and Wallis, (2013); White (2013); Van de Velde and Augustin (2014); De Gruyter et al. (2015); Mulley and Reedy (2015); Olsson et al (2015); Gössling et al. (2016)

These studies are helpful for understanding the common methods used in transport policy and are exemplars of appropriate methods required for examining bus policy. Once the common research methods were established, it was then important to understand the

merits and demerits of these approaches, along with other approaches that could be adopted in this research. This in turn would help select the most appropriate research methods to be adopted in this study. Table 4.2 presents a summary of research methods and the advantages and limitations associated with these methods.

The studies identified in table 4.1 and the research methods identified in table 4.2 suggest a variety of methods which can be adopted in policy research to review, explore and analyse issues associated with the implementation of transport policy.

Table 4.2: Summary of common research methods used in transport policy

Methods	Objective	Advantages	Limitations
Observations	To observe reactions and interactions of participants in natural settings	<ul style="list-style-type: none"> • Can directly observe what participants do rather than what they say they do • Behaviour can be observed • Respondents' willingness to respond • Generally unobtrusive 	<ul style="list-style-type: none"> • Potential for observer bias • Potential for participants to act differently • Does not determine why participants behave the way they do • Privacy or access issues may arise • Time consuming
Document Review	To examine existing documents to identify themes, patterns and commonalities	<ul style="list-style-type: none"> • Inexpensive • Generally unobtrusive • Potential to provide information that is not directly observable • Can be used for longitudinal analyses 	<ul style="list-style-type: none"> • Documents may be out of date, incomplete or unavailable • Documents may be inaccurate or biased towards selected information • Can be time consuming to collect, review and analyse
Interviews	To determine participants perceptions, beliefs, feelings and experiences	<ul style="list-style-type: none"> • Useful for asking 'why' and 'how' questions • Provides in-depth analysis • Potential to probe for additional information • Can properly know/understand the participating audience 	<ul style="list-style-type: none"> • Interviewer may be biased • Potential for reflexivity bias • May be time consuming to conduct, analyse and interpret findings • Multiple interviews needed to identify a range of issues • May be intrusive
Focus Groups	To understand a range of opinions on a specific issue or to seek community norms	<ul style="list-style-type: none"> • Can thoroughly cover subjects as the discussion gets different points of view • Can probe for additional information • Can explore new topics and issues in depth 	<ul style="list-style-type: none"> • Potential for dominant characters to influence other participants so they do not voice their own opinions • Time consuming to conduct, analyse and interpret findings • Potential for facilitator bias and sensitive topics could arise
Secondary Data Analysis	To supplement existing findings or to explore a topic from a different angle	<ul style="list-style-type: none"> • Inexpensive and quick • Published data is generally high quality • Can be used for longitudinal analyses • Can be analysed across different geographies 	<ul style="list-style-type: none"> • Can be difficult to get access to data • No control over data quality • Can be unfamiliar with data • May not contain all variables of interest

Source: Author's synthesis on literature based on Bryman (2001), Greenfield (2002), Mack et al (2005), Yin (2009) and Hennick et al. (2011)

4.4 Overall research approach

In order to achieve the research objectives outlined in chapter one of this thesis, a mixed methods research approach was adopted comprising of both quantitative and qualitative approaches. The quantitative methods include questionnaires while the qualitative methods include a desktop review, telephone interviews, observations and face-to-face interviews. Quantitative data collection methods are useful for analysing the quantitative aspects related to transport governance and setting targets and suitable measures to achieve those targets. Meanwhile qualitative data collection methods are helpful to explore social issues by analysing the different perspectives of participants' experiences, evaluating subjective judgments and the contextual understanding of policy issues (Flick, 2006). A brief description of each research method is provided in the following sections.

4.4.1 Desktop document review

Most research begins with an investigation to learn what is already known and what remains to be learned about a topic (Creswell, 2009). Chapter three of this thesis revealed that there has been extensive research into policy implementation since the late 1960's and many scholars have attempted to develop policy implementation theories and models to address the gaps that often occur between policy decision intent and policy performance, or implementation outcome. However, it was found that no existing hybrid theory included all the factors that were hypothesized to be important. For this reason, an extensive desktop review was carried out and a new decision support framework was created to analyse the data collected in this research.

Section 3.2.1 and section 3.2.2 provide fruitful theoretical elements of both top-down and bottom-up approaches, which can now be combined to develop the new decision support framework for this study. The new framework consists of a ten-point analytical matrix based on a synthesis of the frameworks devised by the theorists mentioned in chapter three. From analysis of top-down and bottom-up theoretical approaches, the following decision support framework was developed:

New decision support framework

1. *Policy objective:* A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.
2. *Availability of resources:* Resources such as financial support are important; however, where resources are limited, it is necessary to maximise the use of available resources.
3. *Intra-organisation support and communication:* Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.
4. *Characteristics of organisations:* Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).
5. *Economic, social and political environments:* Current and future economic, social and political environments play an important role on the outcome of the policy process.
6. *Policy champions:* Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.
7. *Bureaucratic power:* Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.
8. *Collaboration and interaction between those involved in the policy process:* Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.

9. *Policy remodelling*: Limited changes to the policy should occur from the design stage right through to the implementation stage.
10. *Opposition, conflict and ambiguities*: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

The first part of the framework highlights the importance of setting policy objectives. Objectives should be placed in a written policy document that acts as an umbrella for the policy process and specifies targets, measures, and monitoring mechanisms. In Great Britain, annual review of these documents is beneficial to see where policy is being implemented or where barriers are undermining the implementation process. However, annual monitoring reports and a separate bus strategy are no longer statutory requirements for local authorities in Great Britain.

The second part of the framework identifies resources, including financial support, as an important factor for implementation. However, where resources are limited, it is necessary to maximise their use. One solution for maximising resources is the development of a business plan, which sets out clear expectations and realistic time scales, and limits resource waste.

The next part of the framework looks at internal factors that can have an impact on policy implementation. These include intra-organisation support and communication (e.g., staff training and supervision), characteristics of the organisation (e.g., size, competency, and workload of staff), and bureaucratic power of members within the organisation. The framework then looks at external factors that can have an impact on policy implementation. These include economic (e.g., the impact of globalisation on the transport sector), social (e.g., demographic change), and political (e.g., the stability of local governments) factors. Other external factors include opposition, conflict, and ambiguities (e.g., public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars, and open access to bus operating data).

The final part of the framework considers factors with both internal and external elements, including policy remodelling (e.g., changes during the design stage that may cause unnecessary delays and over-spending), collaboration and interaction between those involved in the policy process (e.g., collaboration between local authority and bus operators), and policy champions (e.g., advocates who are responsible, competent, and motivated to see the policy follow through from beginning to end). This new decision support framework will be used to analyse the data collected in this research, which will be explained in the next section.

Chapter 8 and Chapter 9 of this thesis will provide a discussion on the most important elements of the framework and how they interrelate. However, these issues will be discussed once the framework has been used for the empirical data.

Data was also collected from published journal articles, books, newspaper articles, LTPs and LTSs, monitoring and delivery reports, and government publications and reports, relevant to this research. These documents provide rich information regarding the way in which policy is translated into action.

4.4.2 Online questionnaire

An online self-completion questionnaire administered via email was considered an appropriate method of quantitative data collection for this research. Bryman (2008) indicates that there are two methods for administering surveys which include self-completion questionnaires and structured interviews. Figure 4.1 illustrates the research instruments involved for administering these types of surveys.

This research used a self-completion questionnaire via internet and embedded in an email, as indicated in figure 4.1. This mode of administration was considered more appropriate in comparison to postal and supervised (face-to-face) for several reasons. Bryman (2008) points out that one of the most damaging limitations of postal questionnaires is their lower response rates. Meanwhile supervised questionnaires were simply not an option as this would limit the size and geographical coverage of the survey – every Council office in the country could not be visited. By comparison, questionnaires embedded in emails have generally a higher response rate as most people have access to emails. The

response rate can also be increased by sending reminder emails to the respondents. This method is also far more economical as less paper is used. Furthermore, questionnaires embedded in emails are generally inexpensive and relatively quick in comparison to postal surveys. For these reasons, the questionnaire administered online were selected as the most appropriate method for this part of the research.

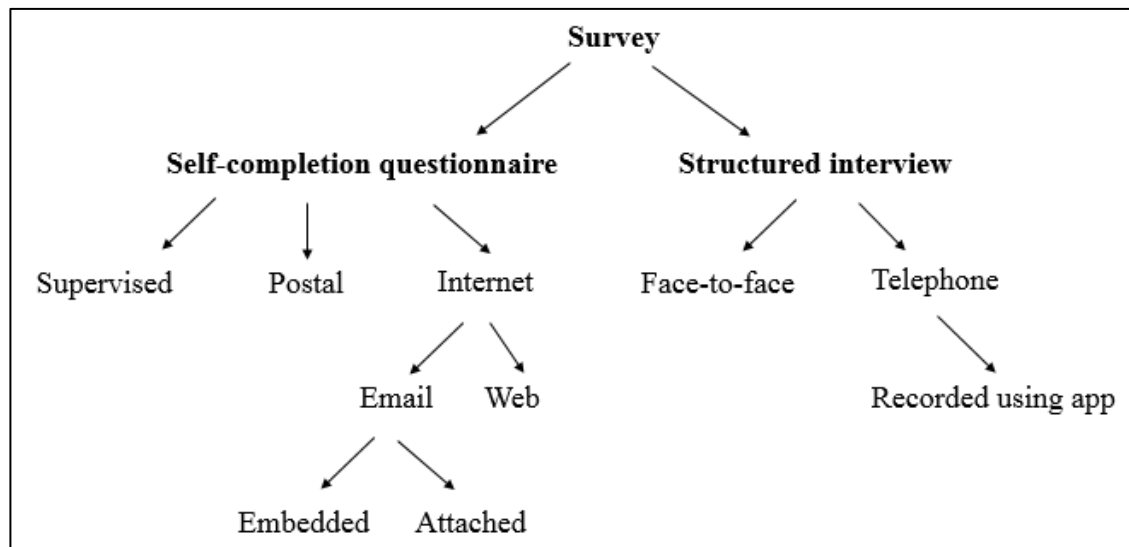


Figure 4.1: Main modes of administration of a questionnaire survey.
Based on Bryman (2008, p167)

4.4.3 Telephone interviews

Following the completion of the online questionnaire, semi-structured telephone interviews were completed to elicit a deeper understanding of the results, which simply could not be achieved from the questionnaire results alone. The interview questions included open ended questions and provided the interviewee considerable room to freely express their perspectives and experiences. This enabled rich and in-depth discussion about the results of the online questionnaire survey, which would not be possible with a structured interview with specific or closed ended questions.

Telephone interviewees were self-selected based on positive responses to an invitation question in the survey which enabled in-depth discussion to achieve a full understanding of the issues raised in the survey. In comparison to face-to-face survey interviews, telephone interviews were considered more appropriate for this research as they are far cheaper and quicker to administer. Telephone interviews were also considered

more appropriate because in personal interviews, respondents' replies are often affected by characteristics of the interviewer such as "class", "ethnicity" and their "mere presence" (Bryman, 2008). Therefore, respondents' may reply in ways that they feel will be deemed desirable by interviewers. The remoteness of telephone interviews is helpful in removing this potential source of bias. Furthermore, hidden personal characteristics of the interviewer are less likely to affect the respondents' answers.

4.4.4 Observations

Observations were also an important research method as they provide a way to check for nonverbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other, and check for how much time is spent on various activities. DeWalt and DeWalt (2002) point out that observations develop a holistic understanding of the phenomena under study that is as objective and accurate as possible given the limitations of the method. Therefore, observations were used to increase the validity of the study as they can provide an understanding of the context and phenomenon under study.

4.4.5 Case studies

Case study research (CSR) is one of the most critical and approachable methods in qualitative research, which has gained significant importance in different disciplines such as social science (Reddy, 2015). Contributions of Yin (1984) have made a high impact on CSR in terms of application, design and procedure, theory testing and theory development. According to Yin (1984, p26) "CSR is remarkably hard, even though case studies have traditionally been considered to be 'soft' research". Yin (1994, p.13) further explains that CSR is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clear evident and it relies on multiple sources of evidence". CSR was therefore an important component of this research to investigate the implementation of local bus policy and to identify the barriers and enablers of this specific phenomenon.

Thomas (2011) defines a case study as an analysis of systems that are studied with a comprehensive view by either one or several methods. In other words, when a study includes more than one single case, a multiple case study is needed. A multiple case study

differs to a single case study because multiple cases are required to understand the differences and the similarities between the cases (Baxter and Jack, 2008; Stake, 1995). In line with this, Yin (2009, p.46) proposes four approaches to designing a case study as indicated in table 4.3. This includes single or multiple cases which are embedded or holistic. The holistic approach includes single or multiple case studies using a single unit of analysis, which is largely one dimensional and focused on a specific area of research. Conversely, an embedded approach includes single or multiple case studies using multiple units of analysis, which helps to answer research questions across a number of dimensions within the particular case.

Eisenhardt (1991) points out that the number of cases to be chosen depends upon how much new information the cases can bring and how much is known. This in turn can help researchers to decide whether to explore a single case or use multiple cases which allows researchers to analyse the data within the case analysis, between the case analyses and make a cross-case analysis (Yin, 2003). Similarly, Gronhaug (2001) suggests multiple cases provide an extra dimension of cross-case analysis to be used which can lead to richer theory building. This also increases validity, ensures robustness and helps to prevent researcher bias which is more common in single cases (Meyer, 2001). Therefore, an embedded approach using multiple cases and multiple units of analysis (Type 4 in table 4.3) was considered suitable for this research. This approach involved the investigation of several bus schemes (multiple cases) using a document review, observations and face-to-face interviews (multiple units of analysis).

Table 4.3: CSR design by Yin (2009, p. 46)

	Single case design	Multiple case design
Holistic (single unit of analysis)	Type 1: Single case using single unit of analysis	Type 3: Multiple cases using single unit of analysis
Embedded (multiple units of analysis)	Type 2: Single case using multiple units of analysis	Type 4: Multiple cases using multiple units of analysis

There are many benefits of using this approach in comparison to a single case approach or multiple cases using a single unit of analysis. The most important reason for using multiple cases instead of a single case is to gain a deeper understanding of bus policy associated with specific bus schemes. This method is particularly important because each bus scheme may experience different barriers and enablers and therefore a cross-case analysis as suggested by Yin (2003) is essential. According to Herriott and Firestone (1983), a multiple-case study has distinct advantages and disadvantages in comparison to a single-case study. The evidence from multiple cases is often considered more compelling, and the overall study is therefore regarded as being more robust. Therefore, this study included four case studies on specific bus schemes in Great Britain to evaluate the variety of transport institutional structures, their statutory powers and how their level of coordination affects the implementation of transport policy at a local level. Case studies allow the assessment of transport policies with respect to institutional arrangements. Additionally, case studies provide rich levels of understanding of how transport institutions function at a local level. For these reasons, a multiple case study methodology was an important approach in this research.

It is also worth noting that there are several barriers associated with multiple cases. For example, multiple cases can be expensive, time-consuming and have the potential to lose depth. There are also concerns over the number of cases which should be included in the study. Dyer and Wilkins (1991) point out that the page length and the number of cases is not the key issue. Instead, they believe the researcher must be able to describe and understand the context of the scene in question. However, Eisenhardt (1989) argues that the number of cases are important and a minimum of four to a maximum of 10 should be included. Hence, this research included four case studies which was considered sufficient to overcome the barriers associated with multiple cases.

Once the case studies were chosen, the interviews were conducted face-to-face as they offer more flexibility and have several key strengths. The interview questions were open-ended which provided opportunity for the interviewee to discuss some topics in more detail. Open-ended questions are useful when an interviewee has difficulty answering a question or provides only a brief response because the interviewer can prompt or

encourage the interviewee to consider the question further. They also allow the interviewee to elaborate on an original response, probe for additional information, clarify questions and correct misunderstandings (Mathers et al., 2002). However, there are also disadvantages of using face-to-face interviews as indicated in table 4.2. They involve high costs, geographical limitations, time pressure on interviewee and biased answers from interviewee (Holbrook et al., 2003a, 2003b; Alreck and Settle, 2004).

4.4.6 Pilot study

There are two terms in social science research to explain the term pilot study. Polit et. al. (2001) suggests a pilot study can be referred to as feasibility studies which are small scale versions or trial run, done in preparation for the major study. Meanwhile, Baker (1994) suggests a pilot study can also be the pre-testing or 'trying out' of a particular research instrument. Thus, a pilot study is a small-scale implementation of a larger study or a part of a larger study. A pilot study can last for a shorter period of time and usually involve a smaller number of participants, sites or organisations. They can also be used in any methodological setting, especially when attempting to collect data in a new format or location or to simply examine potential problems that may be encountered. According to Peat et al. (2002), there are many advantages of a pilot study for preparing a questionnaire or interview schedule:

- Pilot is administered in exactly the same way as it would be administered in the main study
- Feedback can be received to identify ambiguities and difficult questions
- Time to complete pilot can be recorded so the researcher can decide whether it is reasonable
- Helps to discard all unnecessary, difficult or ambiguous questions
- Helps to assess whether each question gives an adequate range of responses
- Helps to check that all questions are answered
- Allows researcher to re-word or re-scale any questions that are not answered as expected
- Allows researcher to shorten, revise and, if required, pilot again.

Pilot studies are also important because they provide the researcher with ideas, approaches and clues the researcher may have missed. They enable a thorough check of the planned statistical and analytical procedures, giving the researcher a chance to evaluate their usefulness. Moreover, the researcher may then be able to make alterations in the data collecting methods and therefore analyse data in the main study more efficiently. Also, the pilot study can save time, money, and enough data for the researcher to decide whether to go ahead with the main study. Finally, pilot studies are beneficial because the researcher may try out a number of alternative measures and then select those that produce the clearest result for the main study.

As there are three key stages in this research (questionnaire, telephone interviews and case studies), this research completed three separate pilot studies. First, after the initial design stage, the questionnaire was piloted to identify any deficiencies so necessary improvements could be applied. The questionnaire was prepared and was distributed by a link via email to a small group of people including research supervisors, colleagues at Edinburgh Napier University and staff at SEStran. This group of people were chosen to complete the questionnaire as they were familiar with experienced in survey design. Once the pilot study was completed, any difficulties in understanding the questions were removed and it was ensured that questions produced were insightful enough to be later analysed. Next, a pilot study was completed for the telephone interviews. This pilot study was conducted by telephone with the same group of people to identify any deficiencies so necessary improvements could be applied to the interview questions. Finally, a pilot study was completed prior to conducting the four case studies. The same group of people completed the face-to-face interviews which helped to identify any deficiencies so necessary improvements could be applied to the case study questions.

4.5 Data collection

This research employed both primary and secondary sources for data collection. Primary sources consisted of qualitative methods such as observations, telephone interviews and in-depth face-to-face interviews. It also included quantitative methods such as questionnaires. The aim of these methods was to collect data to elicit a deeper understanding of the experiences and perceptions of key actors involved in bus policy implementation at a local level. Secondary sources included a review of documents including LTPs and LTSs,

monitoring and delivery reports, and government publications and reports. These documents consisted of secondary data which were collected to verify information that can serve as a baseline for understanding local bus policy implementation, present an initial assessment of the situation and to identify gaps in knowledge. This multi-method approach was considered the most appropriate approach to overcome the limitation of using a single method, yet it also enables triangulation of the findings and therefore greater confidence in the results (Bryman 2001). This approach was also considered appropriate as a single method would not be capable of achieving all of the research objectives identified in section 1.5 of this thesis. The following sub-sections describe the data collection methods chosen for this research which in turn helps answer the research questions.

4.5.1 Desktop document review

Data was collected from published journal articles, books, newspaper articles, LTPs and LTSs, monitoring and delivery reports, and government publications and reports, relevant to this research. These documents provide rich information regarding the way in which policy is translated into action. In particular, a review of monitoring and delivery reports, produced by local authorities in Great Britain, helped to identify themes based on the key areas of bus policy discussed in these documents. The questions for the online questionnaire and telephone interviews were then structured under these five bus policy themes. The five themes were also used to organise the findings of this study and include: policy documentation; policy responsibility; policy targets; performance monitoring; and implementation barriers. Once the questionnaire was prepared, a desktop review was required to find the contact details of all 143 PTO's in Great Britain, outside London. This would also ensure that a census survey could be completed and the entire population of public transport officers in British local authorities were contacted about the questionnaire.

Meanwhile, the case study questions were placed under three common themes. These themes were identical to those used for the questionnaire and telephone interviews, which allowed results to be also analysed accordingly. The multiple case studies also included a document review of local transport documents and government publications and reports. A document review method has many benefits which were useful for this research, as indicated in table 4.2. These documents were particularly helpful because

they were inexpensive, unobtrusive and had the potential to provide information that was not directly observable.

A desktop review was also important for this research as it helped to choose the schemes for the case studies. This included schemes which appeared successful or less successful. As a desktop review revealed several examples of successful bus schemes, it was decided to choose bus schemes which included a range of bus policies which influenced implementation. A desktop review was particularly important for obtaining this information, as no other research method would have provided access to this information. Once the schemes were chosen, a desktop review was then required to find the most suitable participants to complete the interviews. This involved contacting as many participants as possible who were involved in the planning, preparing or implementation of the schemes. Finally, a desktop review was also important for this research as academic, industry and government literature were used to supplement the interview results and to check the accuracy of interview statements when necessary.

4.5.2 Online questionnaire

A census survey is an attempt to list all elements in a group and to measure one or more characteristics of those elements. It is a method of data collection and can provide detailed information on all or most elements in the population, thereby enabling totals for rare population groups or small geographic areas (Sage, 2008). Sample surveys are similar to census surveys, however only a subset of the elements in the population are considered. For this reason, a census survey was deemed the most suitable survey to administer the questionnaire to, and so the entire population of public transport officers in British local authorities was the target audience.

To help develop an understanding of the issues related to the implementation of bus policies at a local level, a self-completion questionnaire was designed and administered online to all 143 public transport officers in the Great Britain, outside of London. A questionnaire is considered the most appropriate method to address the thesis research questions which includes “what” and “how” type questions. The questionnaire was also hosted online to simplify the administration and data analysis process.

Once the appropriate audience was identified, the questionnaire then needed to be designed to draw out opinions and perceptions of those taking part in the questionnaire. The questionnaire had a semi-structured format as this allowed answers to be obtained, whilst still enabling issues to be widely explored, meaning that each question could be tailored to the respondent, yet also be comparable.

The questionnaire consisted of 16 open-ended questions ranging from dichotomous, multiple choice, rank order scaling and rate scaling questions. These questions were structured under five policy themes which arose from the research questions. The five themes were also used to organise the findings of this study and include: policy documentation; policy responsibility; policy targets; performance monitoring; and implementation barriers. A consent form was required to be completed by each participant before the questionnaire could commence. This included a brief introduction in line with the University's code of ethics, which highlights the confidentiality and anonymity of respondents and their council. The participants were also given the opportunity to leave questions blank and they were advised that the survey would take no more than 15 minutes of their time. Appendix A presents the online questionnaire sent to all public transport officers within Great Britain.

The next step included authorisation to carry out the questionnaire. Authorisation was granted by Edinburgh Napier University to use a web-based survey application called Novi. A new template was designed to produce a questionnaire most suitable for the online viewer. Ethics approval was also provided by the University Research Integrity Committee prior to conducting the questionnaire. This was to ensure the questionnaire met the requirements of the University Code of Practice for Research Integrity. After the initial design stage, the questionnaire was piloted with a small group of people to identify any deficiencies so necessary improvements could be applied. The questionnaires were then distributed over several weeks and this included a link to the questionnaire embedded in an email with instructions for clarity.

4.5.3 Telephone interviews

Questionnaires provide evidence of patterns amongst large populations, however qualitative interview data often gather more in-depth insights on participant attitudes, thoughts,

and actions (Kendall, 2008). Therefore, telephone interviews were considered a suitable approach for achieving the research first objective as perceptions, beliefs and experiences were being sought from specific representatives i.e. public transport officers who originally conducted the questionnaires and was familiar with the topic. This contrasts with 'how much' or 'what proportion' type questions where a survey is generally more suitable (Richardson et al. 1995).

A criterion-based strategy (Miles and Huberman, 1994) was utilised to select participants who had already conducted the questionnaire. This is a form of purposive sampling which is a technique used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2002). This technique was chosen because it involves identifying and selecting individuals who are especially knowledgeable about or experienced with a phenomenon of interest (Cresswell and Clark, 2011). Hence, participants were purposively contacted because they had previously taken part in the questionnaire and were knowledgeable and experienced with dealing with the implementation of bus policy at a local level.

Question 14 of the questionnaire asked the public transport officers if they would like to take part in a follow-up interview. 10 respondents offered to take part in a follow-up interview and submitted their contact details. This highlights the availability and willingness of the participants, which Bernard (2002) and Spradley (1979) note as important. Table 4.4 provides a list of the public transport officers and the location of their local authority:

Table 4.4: Telephone interviewees

Interview	Local Authority	Location	Classification
1	Midlothian	Scotland	Semi-rural
2	Aberdeenshire	Scotland	Rural
3	Northamptonshire	England	Rural
4	Medway	Unitary	Urban-Rural
5	City of Cardiff	Welsh	Urban
6	Borough of Poole	Unitary	Urban-Rural
7	East Lothian	Scotland	Urban-Rural
8	Wokingham	Unitary	Urban-Rural
9	Northumberland	Unitary	Rural-Urban
10	Leicestershire	England	Rural-Urban

The interviews consisted of 11 open-ended questions under common themes related to bus policy implementation. These questions allowed participants to elaborate the context of their answers from the questionnaire by means of a relaxed and confidential interview process. Semi-structured interviews were therefore chosen because they provide the best opportunity for in depth discussion to achieve a full understanding of the issues (Bryman and Bell, 2007). Appendix B presents the interview questions which were discussed with the 10 public transport officers from the questionnaire. A pilot study was conducted by telephone with a small group of people to identify any deficiencies so necessary improvements could be applied. Participants were then contacted by email to describe the procedure of the interviews to be carried out in accordance with the ethical procedures and guidelines set out by Edinburgh Napier University (ENU). Once the participants replied, a suitable time was set up to conduct the semi-structured interview via telephone. Each interview began by obtaining consent to record the conversation using a “call recorder” app.

4.5.4 Observations

Observations were carried out by attending interviews conducted with employees from relevant organisations who were involved with transport policy development and implementation. The aim of this method was to observe those involved in the interviews and to gain insight into the techniques used by the interviewer that could be helpful for conducting the interviews in this research. This approach was adopted prior to developing questionnaires and conducting interviews.

Observations were also carried out by conducting site visits. Three out of the four case studies involved site visits to visualise the schemes that were being investigated. Observations were not a major part of the data collection, however, it was helpful to observe the operation of these schemes before the interviews took place. They also provided the opportunity to include additional interview questions which may have been prompted by observations at these site visits.

4.5.5 Case studies

Several prerequisites were required for a case study to be selected for this research. As the aim of this research is to identify barriers to the implementation of bus policies in Great Britain, only case studies were selected which were based in Great Britain. These case studies were selected due to their comparability where they include the same phenomenon under investigation (implementation of bus policy) and follow similar transport policy frameworks (Scotland and England). According to Patton (1990), the case study approach is a specific way of collecting, organising and analysing data. As Yin (1989) points out, case studies are an “*empirical enquiry that:*

- *investigates a contemporary phenomenon* [the implementation of bus policy] *within its real life context* [the scheme]; *when*
- *the boundaries between phenomenon and context are not clearly evident; and in which*
- *multiple sources of evidence are used* [document review, observations and face-to-face interviews]”

Therefore, this research investigates the implementation of bus policy in the context of a number of different schemes and included face-to-face interviews with industry representatives involved in those schemes.

The case studies involve previous bus schemes that have been implemented, or attempted to be implemented, in different locations within Great Britain. These types of bus schemes were chosen so more focus can be placed on the outcomes of these schemes, rather than expected outcomes if they were not yet completed. As it was important to include schemes which have appeared successful or less successful, a desktop review was carried out to help choose these schemes. It was discovered that a scheme proposal for a Quality Contract (QC) in Tyne and Wear was rejected in November 2015. Therefore, this case study was important to investigate as it is an example of a scheme which was less successful in terms of implementation. This case study would also help determine the barriers which had an impact on the implementation of this scheme.

Next, it was important to choose schemes which appeared successful. As a desktop review revealed several examples of successful bus schemes, it was decided to choose bus schemes which included a range of bus policies which influenced implementation. For example, the Fastlink Scheme in Glasgow appeared to be an example of a successful bus scheme in terms of implementing specified facilities which included extensive bus priority measures along the routes, improved bus stop and access measures, improved bus shelters and enhanced bus route monitoring. Another example of successful implementation included a Bus Priority Scheme in Solihull. This included new bus lanes along three sections of a road on Lode Lane, along with infrastructure improvement measures. A similar scheme included the Musselburgh High Street Improvement Works, which included improvement works to the High Street, Musselburgh between Kilwinning Street and Pinkie Pillars. However, it was difficult to gather the appropriate contacts required for this case study due to a limited number of actors involved. Therefore, the proposed case study was excluded from this research.

It was also decided to choose a case study which was successful in terms of smart ticketing. Oxford Smartzone and South Oxfordshire integrated ticketing scheme was proposed as a potential case study, however, due to the restructuring of Oxfordshire County

Council it was advised by the council that key actors involved in this scheme would be unavailable to take part in this study. Therefore, this case study was excluded from the research. Another example of a successful smart ticketing included the ABC (All Bus Companies) Multi-Operator Smart Ticketing Scheme in Dundee. This scheme included the introduction of smart ticketing which is valid on all bus company routes across Dundee and the surrounding areas.

Table 4.5 shows a decision table created to determine the selection of case studies most suitable for this research. Following the examination of potential case studies, it was decided four case studies would be sufficient to examine the barriers and enablers associated with the implementation of bus schemes. It was particularly important that conducting the case studies would meet the resources available to the researcher, such as time and expenses. In meeting these requirements, the chosen case studies included a scheme proposal for a QCS in Tyne and Wear, the Fastlink Scheme in Glasgow, a bus priority scheme in Solihull, and the ABC multi-operator smart ticketing scheme in Dundee.

Table 4.5: Decision table for case study selection

Scheme Criteria	QCS	Fastlink	LLRE	ABC
Based in Great Britain	√	√	√	√
Completed		√	√	√
An example of successful implementation		√	√	√
An example of less successful implementation	√			
Implementation of specified facilities		√		
Implementation of bus priority			√	
Implementation of smart ticketing				√
Implementation of a quality contract	√			
Resources available to conduct case study	√	√	√	√

Based on the CSR design outlined in table 4.3, this study used “Type 4” which includes an embedded approach using multiple cases and multiple units of analysis. This approach helps address the specific phenomenon of this research (local bus policy) using

multiple cases (4 specific bus schemes). This was considered a suitable approach because the multiple cases enable a cross-case comparison and complement the findings of the online questionnaire and telephone interviews. Thus, this helped to increase the validity and ensure robustness in transferability of results to the larger population. Furthermore, it provided in-depth analysis of complex issues that may not be discovered in questionnaire surveys (Larsson, 1993) or telephone interviews.

Meanwhile, Yin (1989) cautioned that during CSR, cases are not sampling units chosen at random from a population but instead they are individually selected using specific criteria. This research selected individuals for the case study interviews who were previously involved in the specific bus schemes of each case study. The findings from the case studies can be interpreted by inference or analytical generalisation rather than through statistical analysis. This process results in the expansion and generalisation from the cases to theory rather than to the larger population (Yin, 1989). In other words, the case studies can be tested using the new decision support framework to identify the key barriers and enablers that impacted the individual bus schemes, rather than suggesting that every bus scheme experienced the same barriers and enablers by taking the same approach. Figure 4.2 demonstrates the case study design and procedure adopted in this study.

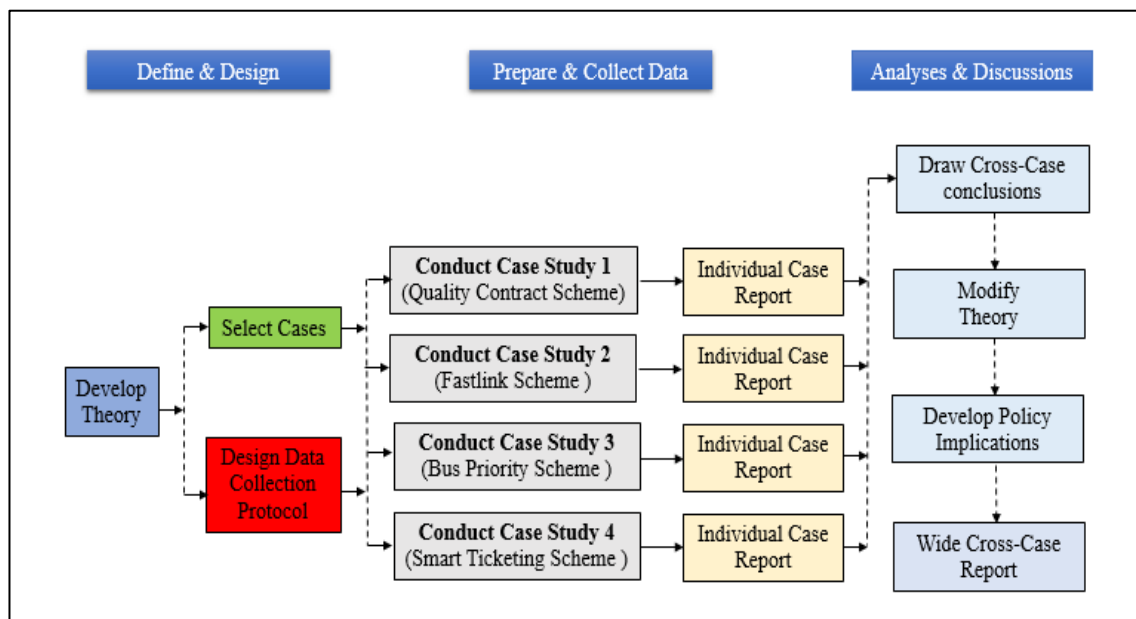


Figure 4.2: Case study design and procedure. Based on Yin (2003)

A desktop review was carried out on the chosen schemes and a list of potential contacts were gathered based on their involvement with the scheme. Unlike the questionnaire and telephone interviews where only public transport officers were contacted, a variety of actors were contacted for the case studies because they have different perspectives of the implementation process for the scheme under investigation. This was considered particularly important because the data collected through interviews can inform local governments in their efforts to implement current bus policies and to overcome obstacles which might currently impede the implementation process. A document review was also carried out to identify relevant documents (previous or current LTP/S, bus strategies, press releases, news articles, reports etc.) that would include information about the case studies under investigation.

Similar to the telephone interviews, purposive sampling was the chosen technique for the selection of participants for the face-to-face interviews. Participants were selected for each case study because they are especially knowledgeable or experienced with regards to the specific bus scheme that was under investigation. Existing contacts were first used to recruit participants, followed by the adoption of a 'snowballing' technique where the contacts were asked to suggest other representatives that might be suitable for interviewing.

In identifying the target audience for the interviews, 29 semi-structured interviews were conducted with 36 industry representatives (some interviews involved more than one participant). The organisations involved include local authorities, combine authorities, National Government, bus operators, public transport user groups (PTUG), bus representation groups, consultants, and other organisations interested in the schemes. Interviews with a variety of experts enabled a wider range of views on the given topic (Henink et al. 2011) and therefore results would be subject to less bias.

The case study questions consisted of 23 open-ended questions under three common themes. These themes are identical to those used for the questionnaire and telephone interviews, which allows results to be analysed accordingly. Appendix C presents the list of interview questions which were discussed with the case study interviewees. Given the variety of actors selected for each case study, expertise on topics was varied. Participants

therefore had the option to avoid answers in which they didn't feel reflected their expertise. For example, bus operator representatives would be less inclined to speak about questions related to bus policy targets, whereas local authority representatives would be more inclined to speak about this topic because they are responsible for setting or meeting targets.

Once the questions were prepared, a pilot study was conducted with a small group of people to identify any deficiencies so necessary improvements could be applied. Participants for the case studies were then contacted by email to describe the procedure of the interview to be carried out in accordance with the ethical procedures and guidelines set out by ENU. Once the participants agreed to take part, a suitable time was set up to conduct the semi-structured interview.

Each interview was conducted at a location chosen by the participant. Prior to the interview, the participants were assured their responses would remain anonymous, which would then enable them to talk openly about the specific scheme, thereby providing an accurate and honest responses. This was an important element to consider as Yin (2009) points out that results from interviews can be biased because participants give an answer they think the interviewer wants to hear. On average, each interview lasted 40 minutes, however they ranged from 20 minutes to 90 minutes. All participants agreed to have their interview recorded by a Dictaphone.

4.6 Data analysis

The data analysis stage is a very important aspect of the research since it changes the raw data obtained from the data collection tools into meaningful information. The primary data was collected using quantitative data (questionnaire) and qualitative data (telephone interviews, observations and case studies). These methods aimed to elicit the experiences and perceptions of key actors on the implementation of bus policy at a local level.

The quantitative data was first addressed using descriptive statistics. Descriptive statistics are useful to present the quantitative descriptions in a manageable form by summarising and describing the data collected in the questionnaires. Following completion

of the online questionnaire, the results were imported into SPSS and analysed using descriptive statistics. This includes the use of a 2×2 cross-tabulation, and chi-square analysis to determine whether the policy objectives and measures were statistically independent. The chi-square is a non-parametric, bi-variate test that makes use of two nominal variables for testing statistical significance (Bryman, 2008). The results of these statistical tests were only considered significant if the probability p of making the recorded observation by chance was less than 5% ($p < 0.05$). This method of data collection is considered to be “hard” and “reliable” (Bryman, 2008) and the processes involved are predominantly deductive. Quantitative methods also answer descriptive questions such as “when?”, “where?”, “how many?” and “how often?”. The aim of the questionnaire was to provide a descriptive summary of what the data showed in terms of these questions and to help understand the impact, benefits and limitations of local bus policy in Great Britain, outside London. Therefore, inferential statistics were not required, which infers properties about a population and includes testing hypotheses and deriving estimates.

The qualitative data was then addressed in this study. This included semi-structured telephone interviews which were conducted with ten of the public transport officers from the questionnaire. These interviewees were self-selected based on positive responses to an invitation in the questionnaire. This research method enabled in-depth discussion to achieve a full understanding of the issues raised in the questionnaire.

The next stage of qualitative data analysis for this study included observations. Before the case study interviews could commence, site visits were carried out at bus scheme locations for three of the case studies. This simply involved taking notes at the sites for the opportunity to include additional interview questions or raise any uncertainties during the interviews that followed.

The final stage of qualitative data analysis included face-to-face interviews which were the main source of data collection for the four case studies. This included a scheme proposal for a QCS in Tyne and Wear, the Fastlink Scheme in Glasgow, a bus priority scheme in Solihull, and the ABC multi-operator smart ticketing scheme in Dundee.

Once the telephone interviews and case study interviews were completed, the recordings were immediately summarised (Yin, 2003), while the audio recordings were

verbatim transcribed and analysed in sequence. According to Rabiee (2004), the analysis of a large amount of data obtained through in-depth interview is a huge task for researchers. Therefore, analysis of this data is the most critical and challenging aspect of the research design process. Meanwhile, Britten (1995) points out that costs associated with interview transcription, in terms of time, physical, and human resources, are significant. It is particularly time consuming because for every hour of taped interview, 6–7 hours of transcription is required. Transcription is also considered complex whether the researcher transcribe the tapes themselves or engage professionals, thus transcription is open to a range of human errors (Easton et al., 2000). However, given the resources available for this research, the researcher solely transcribed all the data collected from both telephone interviews and case studies.

Finally, the transcribed recordings were imported into Nvivo (software program used for qualitative and mixed-methods research to help analyse and organise unstructured text, audio, video, or image data) for further analysis. King (2004, p. 263) points out that NVivo is invaluable in helping the researcher index segments of text to particular themes, to link research notes to coding, to carry out complex search and retrieve operations, and to aid the researcher in examining possible relationships between the themes.

This study used a ‘thematic analysis’ technique to analyse the collected data. Thematic analysis is a qualitative data analysis method used to identify patterns (themes) of meaning across a dataset and to provide answers to the research questions being addressed (Braun and Clarke, 2006). It is also the most widely used qualitative approach to analysing interviews. The data collected from the interviews were analysed using a three-stage procedure suggested by Creswell (2007). This includes preparing the data for analysis by transcribing; reducing the data into themes through a process of coding; and representing the data. In accordance with these guidelines, the telephone interviews were firstly transcribed and then imported into Nvivo. The data was then analysed based on key themes that arose from the literature. These are similar to the themes found in the questionnaire and interviews and include issues related to scheme design; existing bus policy documents, policy targets and monitoring of bus polices; and policy implementation and barriers to implementation. Three themes were used instead of five in order to discuss the results of the interviews from each case study in a more understandable and presentable

manner. Nvivo was particularly helpful in this research because it helped to separate the large amount of data collected from the interviews. For example, there is an option next to each interview question node, which categorises all responses to each question. This was helpful to see common themes among different responses for the same question.

Overall the data analysis for this study included theoretical analysis of the three main sources of data collected (questionnaires, telephone interviews and case study interviews). The theoretical analysis was based on the application of the decision support framework to the three sets of data, separately. By correlating participants' opinions and perceptions, the analysis was used to categorise information about the similarities and differences in viewpoints on bus policy implementation under the 10 critical variables of the framework. Finally, the literature review and theoretical analysis of the questionnaire, telephone interviews and case studies were triangulated in order to interpret and present the results. Triangulation refers to a combination of two or more methods in one study and can be employed in both quantitative and qualitative studies (Yeasmin, and Rahman, 2012). Triangulation is an important process of verification and increases validity by incorporating the various methods used in this research.

4.7 Ethical considerations

According to Flick (2014) codes of ethics are formulated to regulate the regulations of researchers to the people and fields they intend to study. In particular, research ethics require researchers to avoid harming participants involved in the process by respecting and taking into account their needs and interests. Therefore, data collection and analysis for this research was carried out in accordance with the ethical procedures and guidelines set out by ENU.

All the necessary arrangements and conditions were met by the researcher in seeking approval for the research project from the ENU Ethical Committee. Furthermore, all respondents involved in this research were required to complete an informed consent form. This ensured respondents understood the research process, their willingness to participate in the study, and their consent to use data/information for the current research study. There were also no direct references made in this thesis to specific interviewees and any comments flagged by participants as confidential were respected. The university

also encourages staff and students to use Novi survey tool and should be replaced by other survey tools to ensure compliance with data protection legislation. Novi is considered more secure and reliable than other survey tools available on the Internet such as UltimateSurvey or SurveyMonkey.

4.8 Summary

This chapter has identified the research paradigm adopted for this study. From identifying the various philosophical approaches, this research utilises a naturalistic approach and takes place within an interpretive research model. This research also follows both inductive and deductive approaches.

Revisiting the studies identified in the previous chapter was helpful to understand the common research methods used in transport policy and were exemplars of appropriate methods required for examining bus policy.

In order to achieve the research objectives outlined in chapter one of this thesis, a mixed methods research approach is adopted comprising of both quantitative and qualitative approaches. The quantitative methods include questionnaires while the qualitative methods include a document review, telephone interviews, observations and face-to-face interviews.

Analysis of the data collected was discussed which includes the application of the decision support framework and triangulation of the findings. The next chapter will introduce the finding from the first set of data collection which includes the online questionnaire.

Chapter 5: Online questionnaire results

5.1 Introduction

This chapter presents the first set on research results by detailing the findings from the online questionnaire. The questionnaire was conducted of 56% of public transport officers from Welsh County Councils, Scottish County Councils, English Unitary authorities plus the Isles of Scilly, English County Councils and English Combined Local Authorities. The aim of this chapter is to elicit the experiences and perceptions of these public transport officers who are involved in bus policy implementation at a local level.

Sections 5.2 presents the questionnaire results. These results are then analysed in section 5.3 which is based on the application of the ten-point framework. Finally, this chapter will address the second research objective to help meet the aim of this thesis. Table 5.1 provides a recap of the second research objective.

Table 5.1: Second research objective

Research Objective	
2 To understand the views and experiences of public transport officers regarding the key issues associated with the implementation of bus policies within Great Britain.	This objective seeks to use the findings of online questionnaires and telephone interviews conducted in Great Britain. This includes the views and experiences of local transport officers. It also seeks to understand areas of consensus and differences between respondents on a wide range of policy implementation issues.

5.2 Questionnaire results

The self-completion questionnaire was administered via internet and embedded in an email. As previously mentioned in the last chapter, the questionnaire questions were structured under five policy analysis themes used to organise the findings of this study. These include; policy documentation; policy responsibility; policy targets; performance monitoring; and implementation barriers. These themes were considered important as they enabled the overall analysis of this study to be coherent and presentable to the reader. Since the questionnaire sample was designed to reflect the views of a large population in

comparison to the data collection methods which followed (telephone interviews and case study interviews), a section called ‘local authority staff profile’ was added at the beginning of the questionnaire. The following sub-sections present the questionnaire results of the 16 open-ended questions under the common themes.

5.2.1 Local authority staff profile

The first question in this section asked the officers to provide their council name. 76 Local Authorities provided their council name while four local authorities remained anonymous. The highest response rate was from combined local authorities (57%) while the lowest response rate was from Welsh local authorities (41%). There was reasonable variation of local authority areas with respect to geographical locations in the UK. Table 5.2 provides a summary of the returned questionnaires based on location:

Table 5.2: Returned questionnaires and location

Location	No. of Returned Surveys	Response Rate for Location
Welsh County Councils	9/22	41%
Scottish County Councils	18/32	56%
English Unitary authorities plus the Isles of Scilly	30/55	53%
English County Councils	15/27	56%
English Combined Local Authorities	4/7	57%
Anonymous	4	N/A
Total	80/143	56%

To determine the rural-urban classification for the UK local authorities used in this study, this research follows the guidelines provided by Defra, which defines rural-urban classification for local authority districts and unitary authorities in England and Wales. Authorities are classified as predominantly rural, significantly rural, or predominantly urban. A three-way classification was created for this research for ease of reference because the Scottish Government has a different system than England and Wales. Although

the thresholds for England, Wales, and Scotland differ, any settlement in the UK with a population greater than 10,000 people is defined as urban. However, settlements with a population between 3,500 and 10,000 people are defined differently (Pateman, 2011). For the purposes of this research, these thresholds are aggregated (figure 5.1) to identify regions as predominantly urban, urban with substantial rural, and predominantly rural in accordance with Defra.

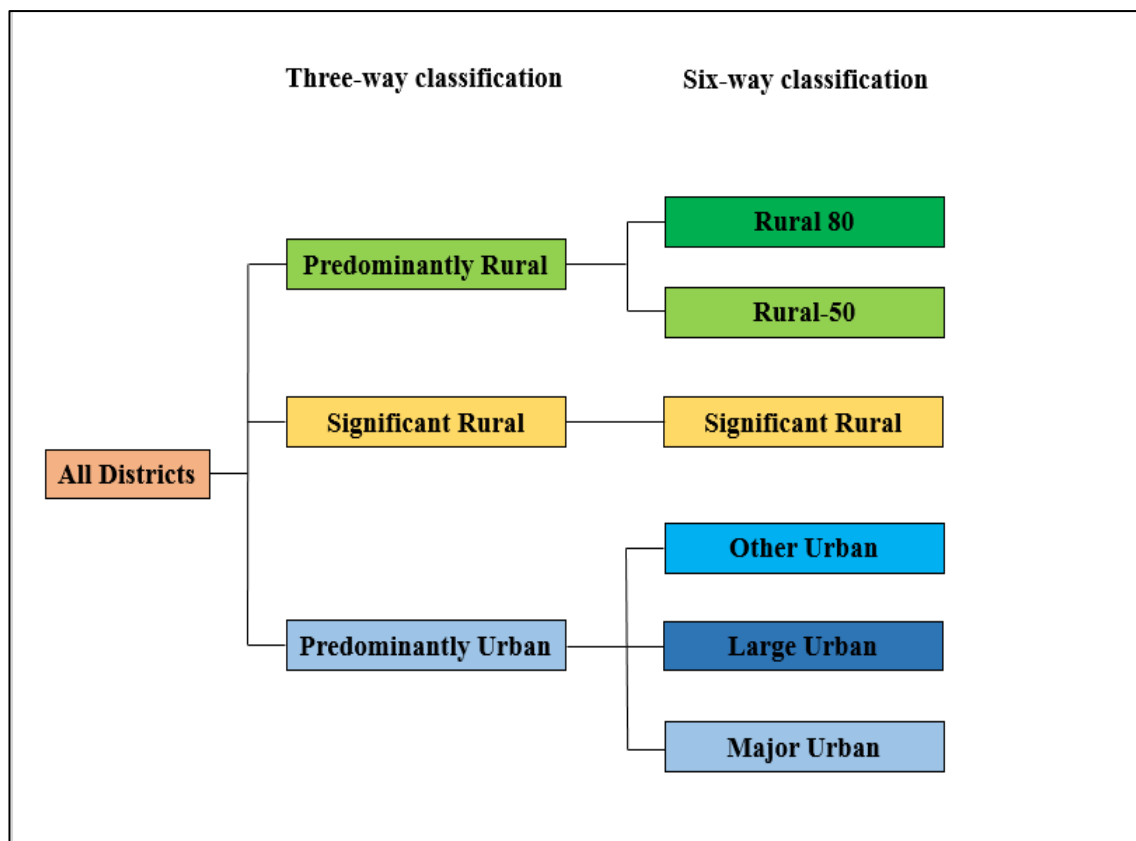


Figure 5.1: Aggregating the rural urban classification

A multinomial logistic regression test was carried out to determine the difference in geographical classification of different authority types. However, there were no difference in geographical classification of different authority types – no authority type was more likely than any other to be predominantly urban, predominantly rural or significantly rural. Table 5.3 shows the completed questionnaires by area and classification.

Table 5.3: Completed questionnaires in regions vs local authority type

Region	Area						Total
	Wales	Scotland	England Unitary	England County	England Combined	Anony-mous	
Predominantly Urban	2	13	19	1	3	0	38
Predominantly Rural	4	3	6	5	0	0	18
Significantly Rural	3	2	5	9	1	0	20
Anonymous	0	0	0	0	0	4	4
Total	9	18	30	15	4	4	80

A second question in this section of the questionnaire asked the officers to list the ways in which they are involved with bus policy in their council area. Table 5.4 shows that between 51 to 75% of officers included the listed areas of involvement which demonstrates that officers have multiple roles when dealing with bus policy in their council area. There was also no statistical association between the bus policy roles and the area or region of the councils.

Table 5.4: Officer's involvement with bus policy

Answer	Count	%
Writing or developing bus policies for your city	50	63%
Setting targets for local bus policy	41	51%
Monitoring bus polices that are in place	48	60%
Implementing the measures to achieve local bus policy objectives	60	75%
Not answered	4	5%

5.2.2 Theme 1 – Policy documentation

This series of questions asked the officers about their current bus policy, key objectives, and the measures required to achieve these objectives. The first question in this section

asked the officers how long their council had a written local bus policy in place. Table 5.5 indicates that 73.9% of councils had a written bus policy in place, almost half of them for 11 or more years. 1.3% said they were in the process of developing a policy; 17.6% said they do not have a local bus policy written down in a single document or do not have any local bus policy. The lack of a local bus policy document is most likely linked to the abolition of the requirement for a separate bus strategy in the 2008 Local Transport Act.

Although there was no statistical association between the urban or rural location of local authorities and the number of years they have had a written local bus policy in place, the findings in table 5.5 indicate that 16% of local authorities “don’t have a local bus policy written down in a single document.” This could be associated with both the size and region of the local authority. It may be that local authorities in rural areas find it more appropriate and simpler to have a single document due to being smaller in size or to the extent of bus provision in the area, in comparison to larger urban authorities that have more bus provision and improvements to consider.¹

Table 5.5: Number of years written bus policy document in place

Answer	Count	%
Less than 1 year	1	1%
1 to 5 years	11	14%
6 to 10 years	8	10%
11 or more years	39	49%
We don’t have a local bus policy written down in a single document – it is more a collection of actions and policies from different documents	13	16%
We don’t have any kind of local bus policy	1	1%
We are in the process of developing one	1	1%
Not answered	6	8%

¹ However, because the bus policy documents of every responding authority were not received, it is not possible for the author to be certain that this is the case for every authority.

The next question asked the officers to identify their bus policy objectives. Of the officers who answered this question, 93% indicated councils are setting objectives. Table 5.6 shows that between 51.3 to 88.8% of officers included the listed policy objectives, which demonstrates that councils recognise the importance of stated bus policy to overall transport objectives.

Table 5.6: Bus policy objectives

Answer	Count	% answer
To promote equal access to transport	71	89%
To improve environmental quality and reduce the effects of transport pollution on air quality	63	79%
To help the transport system operate more efficiently	60	75%
To provide opportunities for fostering a strong, competitive economy and sustainable economic growth	57	71%
To maintain the transport infrastructure to standards that allow safe and efficient movement of people and goods	56	70%
To contribute to national and international efforts to reduce transport's contribution to overall greenhouse gas emissions	47	59%
To improve safety, security, and health, and in particular to cut the number and severity of road casualties	41	51%

The last question in this section asked the officers to select from a list provided the stage at which bus measures are in their city, in order to judge the implementation of different types of measure (Table 5.7). Successful measures included the provision of bus information, bus shelters and improved pedestrian access to stops. Real time passenger information (RTPI) is also becoming more successful where 25% have considered this and will implement it in the future. Similarly, 21.3% said they will also implement multi-operator integrated tickets and review current bus lane networks and ensure they are effective, legible and enforced. However, some measures appeared to be less successful including tickets which can be bought before boarding buses, personal security (CCTV, lighting) and new bus lanes. The least successful measure (maximum fares) could arguably be a result of its applicability to the officers interviewed whereby maximum fares can only be set by English and Welsh councils if they have a statutory quality partnership

(SQP) in place (under the 2008 Local Transport Act), and very few Councils do so. In Scotland, there is no legal possibility for councils to set maximum fares.

Table 5.7: Bus policy measures

Answer	1 ²	2 ³	3 ⁴	4 ⁵
Bus Information – timetables and bus stop flags	72 (90%)	4 (5%)	2 (3%)	0 (0%)
Shelters	67 (84%)	4 (5%)	2 (3%)	3 (4%)
Improved pedestrian access to stops	64 (80%)	11 (14%)	1 (1%)	4 (5%)
Unobstructed level kerb access for buses	62 (78%)	10 (13%)	1 (1%)	5 (6%)
Printed leaflets and other paper-based	62 (78%)	3 (4%)	9 (11%)	0 (0%)
Quality bus stops	59 (74%)	9 (11%)	0 (0%)	7 (9%)
Quality bus infrastructure	57 (71%)	12 (15%)	1 (1%)	7 (9%)
Marketing of bus services	56 (70%)	9 (11%)	4 (5%)	2 (3%)
Quality information	55 (69%)	9 (11%)	2 (3%)	8 (10%)
RTPI	52 (65%)	20 (25%)	4 (5%)	3 (4%)
Seating	52 (65%)	7 (9%)	6 (8%)	4 (5%)
Clean accessible quality vehicles	51 (64%)	11 (14%)	4 (5%)	6 (8%)
Quality customer care	45 (56%)	11 (14%)	5 (6%)	7 (9%)
Pump-priming funding for bus routes	45 (56%)	6 (8%)	8 (10%)	3 (4%)
Marketing targeted at persuading regular car commuters to use public transport	43 (54%)	16 (20%)	7 (9%)	7 (9%)
Multi-operator integrated tickets	40 (50%)	17 (21%)	6 (8%)	11 (14%)
Integrated ticketing	38 (48%)	20 (25%)	3 (4%)	12 (15%)

² 1 = We have implemented this

³ 2 = We considered this, and we will implement in the future

⁴ 3 = We considered this, but we will not implement it

⁵ 4 = We will look at this in the future

Table 5.7 contd.

Answer	1	2	3	4
Bus priority at signals	38 (48%)	16 (20%)	10 (13%)	13 (16%)
Reviewing current bus lane network and its operation to ensure it is effective, legible and enforced	29 (36%)	17 (21%)	10 (13%)	15 (19%)
Tickets which can be bought before boarding buses	29 (36%)	10 (13%)	8 (10%)	21 (26%)
Personal security (CCTV, lighting)	28 (35%)	13 (16%)	13 (16%)	16 (20%)
New bus lanes	26 (33%)	16 (20%)	19 (24%)	10 (13%)
Maximum fares	9 (11%)	10 (13%)	21 (26%)	18 (23%)

Table 5.8 shows the relationship between bus policy objectives (Table 5.6) and bus policy measures implemented to achieve those objectives (Table 5.7). These findings reveal that, regardless of the policy objectives selected, the same policy measures were the most popular. With only a few minor exceptions, the order of popularity of measures was the same when cross-referenced against all of the policy objectives. This suggests that these measures were not chosen to meet specific policy objectives but for other reasons such as contributing towards several objectives simultaneously or being easier or cheaper to implement. For example, bus information is likely to be easier to implement due to the duties and powers that local authorities have in this area under both the 1985 and 2000 Transport Acts. In comparison to this, control over maximum fares is something much more difficult to implement due to limited legal powers for local authorities in this area, as also outlined in this section.

Table 5.8: Cross-tabulation of bus policy objectives and measures

Objective	Measures Implemented											
	Bus info	Shelters	Improved pedestrian access	Unobstructed level kerb	Printed leaflets	Quality bus stops	Quality bus infrast.	Marketing of bus services	Quality info	Real time	Seating	Clean accessible vehicles
To promote equal access 71	67 (94%) ⁶	63 (89%)	59 (83%)	58 (82%)	59 (83%)	55 (77%)	53 (75%)	53 (75%)	51 (72%)	48 (68%)	50 (70%)	46 (65%)
To improve the environment 63	59 (94%)	55 (87%)	52 (83%)	50 (79%)	51 (81%)	48 (76%)	49 (78%)	48 (76%)	48 (76%)	42 (67%)	44 (70%)	43 (68%)
To improve efficiency 60	56 (93%)	52 (87%)	50 (83%)	48 (80%)	48 (80%)	47 (78%)	45 (75%)	43 (71%)	44 (73%)	42 (70%)	41 (68%)	38 (63%)
To provide opportunities 57	53 (93%)	47 (82%)	47 (82%)	44 (77%)	48 (84%)	44 (77%)	43 (75%)	45 (79%)	42 (74%)	37 (65%)	37 (65%)	37 (65%)
To maintain infra 56	52 (93%)	49 (88%)	46 (82%)	47 (84%)	48 (86%)	42 (75%)	42 (75%)	41 (73%)	40 (71%)	38 (68%)	43 (77%)	36 (64%)
Reduce greenhouse gases 47	45 (96%)	40 (89%)	37 (79%)	37 (79%)	38 (81%)	36 (77%)	34 (72%)	36 (77%)	33 (70%)	29 (62%)	31 (66%)	26 (55%)
To improve safety 41	39 (95%)	33 (80%)	34 (83%)	32 (78%)	35 (85%)	32 (78%)	31 (76%)	31 (76%)	29 (71%)	28 (68%)	27 (66%)	27 (66%)

⁶ % = percentage of those respondents who had a listed objective who chose each measure.

Table 5.8 contd.

Objective	Measures Implemented										
	Quality cus- tomer care	Pump-prim- ing fund- ing	Marketing targeted at car commut-	Multi-opera- tor inte- grated tick-	Integrated ticketing	Bus priority at signals	Reviewing current bus lane network	Tickets bought be- fore board-	Personal se- curity	New bus lanes	Max. fares
To promote equal access 71	40 (56%)	41 (58%)	39 (55%)	35 (54%)	33 (46%)	35 (54%)	27 (38%)	26 (37%)	27 (38%)	23 (32%)	8 (11%)
To improve the environ- ment 63	39 (62%)	37 (59%)	37 (59%)	32 (51%)	30 (48%)	32 (51%)	26 (41%)	23 (37%)	19 (30%)	24 38%	8 (11%)
To improve efficiency 60	33 (55%)	34 (57%)	34 (57%)	29 (48%)	29 (48%)	30 (50%)	26 (43%)	22 (37%)	19 (32%)	23 (38%)	6 (10%)
To provide opportunities 57	33 (58%)	35 (61%)	33 (58%)	29 (51%)	26 (46%)	27 (47%)	21 (37%)	23 (40%)	19 (33%)	21 (37%)	6 (11%)
To maintain infra 56	33 (59%)	31 (55%)	33 (59%)	31 (55%)	29 (52%)	29 (52%)	23 (41%)	22 (39%)	21 (38%)	20 (36%)	7 (13%)
Reduce greenhouse gases 47	28 (60%)	21 (45%)	30 (64%)	21 (45%)	19 (40%)	22 (47%)	17 (36%)	20 (43%)	15 (32%)	16 (34%)	6 (13%)
To improve safety 41	25 (61%)	23 (56%)	23 (56%)	20 (49%)	20 (49%)	19 (46%)	18 (44%)	18 (44%)	12 (29%)	17 (41%)	7 (17%)

5.2.3 Theme 2 – Policy responsibility

This section of the questionnaire investigated policy implementation related to the council area of each officer. The officers were first asked to indicate the number of teams within the council's transport department who have responsibility for the implementation of bus policies. The average number of teams within the council responsible for the implementation of bus policies was two. Surprisingly, 15 officers did not answer this question which could suggest they did not know whether there were such teams within the council, or perhaps they simply do not have teams within the council responsible for the implementation of bus policies. Although the questionnaire reveals the number of teams the respondents think there are, the nature of the teams is unknown (for example, if there are separate teams for making implementing policy). Some of the confusion in the answers may arise from the fact that small authorities especially have very small staffs in transport and therefore the notion of a team only for bus policy becomes a bit artificial.

Another question in this section asked the officers for their perception of planned and actual implementation for the previous LTP/S. The majority of officers said that either most (31%) or more than half (45%) of the planned policies were implemented. The fact that 14% of officers did not answer this question could indicate that they were not aware of success. Based on the results from the previous section, it appears that officers are more positive when asked to report on the percentage of policies implemented overall than when asked to consider specific policies and measures.

The final question in this section asked the officers if bus measures in their cities were implemented as planned and without problems. The officers agreed or strongly agreed that the bus policy measures that were implemented as planned and without problem included bus information (timetables and bus stop flags, 73%), improved pedestrian access to stops (68%), and quality bus stops (66%). However, the bus policy measures that were not implemented as planned included new bus lanes (38%), maximum fares (33%) and multi-operator integrated tickets (29%). This result indicates that the policy measures facing barriers are those that require collaboration and action by the operators, where the local authority has little control. In particular, multi-operator integrated ticketing has been an unattainable goal for many years, partly as a result of on-road competi-

tion; hence, operators do not view participation in such schemes to be in their best commercial interests. Furthermore, the 2008 Local Transport Act in England made multi-operator ticketing easier and more of these schemes have come into being. However, these are not often as a result of work by local authorities but they are instead operator initiatives. Interestingly, these results are similar to those found in the previous section where the officers were asked to state the stage at which various measures are in their city. This result clearly indicates there has been little implementation progress with certain bus measures since the last LTP/S and that certain measures that present particular implementation difficulties.

These findings suggest that there is more potential for persuading urban residents to shift mode from automobile to bus than in rural areas, which is understandable given the higher frequency and connectivity of services in urban areas.

Table 5.9: Bus policy measures implemented as planned and without problem

Matrix row	Strongly Agree	Agree	Disagree	Strongly Disagree
Bus Information – timetables and bus stop flags	24 (30%)	34 (43%)	5 (6%)	0 (0%)
Improved pedestrian access to stops	18 (23%)	36 (45%)	9 (11%)	0 (0%)
Quality bus stops	13 (16%)	40 (50%)	3(4%)	0 (0%)
Printed leaflets and other paper-based information	20 (25%)	30 (38%)	6(8%)	1 (1%)
Clean accessible quality vehicles	13 (16%)	36 (45%)	7(9%)	0 (0%)
Unobstructed level kerb access for buses	19 (16%)	34 (43%)	10(13%)	0 (0%)
Seating	13 (16%)	33 (41%)	2(3%)	0 (0%)
Shelters	15 (19%)	29 (36%)	10(13%)	1 (1%)
Quality customer care	10 (13%)	33 (41%)	6(8%)	0 (0%)
RTPI	15 (19%)	23 (29%)	12(15%)	5 (6%)
Marketing of bus services such as school and business travel plans	6 (8%)	29 (36%)	7(9%)	2 (3%)
Marketing targeted at persuading regular car commuters to use public transport	5 (6%)	26 (33%)	11 (14%)	1 (1%)
Pump-priming funding for bus routes	7 (9%)	23 (29%)	9 (11%)	3 (4%)
Integrated ticketing	7 (9%)	23 (29%)	14 (18%)	5 (6%)
Multi-operator integrated tickets	6 (8%)	17 (21%)	14 (18%)	9 (11%)
Bus priority at signals	4 (5%)	19 (24%)	16 (20%)	4 (5%)
Personal security (CCTV, lighting)	4 (5%)	18 (23%)	12 (15%)	2 (3%)
Reviewing current bus lane network and its operation to ensure it is effective, legible and enforced	3 (4%)	17 (21%)	16 (20%)	5 (6%)
Tickets which can be bought before boarding buses	2 (3%)	18 (23%)	10(13%)	5 (6%)
New bus lanes	3 (4%)	10 (13%)	19(24%)	11 (14%)
Maximum fares	1 (1%)	9 (11%)	14(18%)	12 (15%)

5.2.4 Theme 3 – Policy targets

The questionnaire included a section asking whether councils set targets and whether they were met. The results show 44% of councils met most or more than half of the targets set in the LTP/S, while 19% did not have targets related to bus policy (table 5.10). The results also showed that councils did not set targets for the number of vehicle kilometres per annum (74%), fares (70%), cost per passenger journey for services (65%), and age and quality of vehicles (51%). These findings show inconsistency among councils in Great Britain, and the results of the questionnaire showed that in many Councils setting targets is apparently not considered as an important aspect of the policy process. The lack of targets highlights a broken link between setting objectives and implementing measures to achieve them, and could even be related to political decisions not to want to identify unmet targets or may relate to the difficulty of collecting data and monitoring progress in the achievement of certain policies.

Table 5.10: Identifying whether targets were met

Answer	Count	%
Most of the targets set in the local transport plan/strategy are met	8	10%
More than half of the targets set in the local transport plan/strategy are met	27	34%
Less than half of the targets set in the local transport plan/strategy are met	11	14%
Very few of the targets set in the local transport plan/strategy are met	3	4%
We have no targets related to bus policy	15	19%
Not answered	16	20%

Table 5.11: Bus policy targets

Target	Yes	No	We didn't set a target
Number of passengers per annum	13 (16.3%)	12 (15.0%)	36 (45.0%)
Number of vehicle kilometres per annum	2 (2.5%)	1 (1.3%)	59 (73.8%)
Cost per passenger journey for services	8 (10.0%)	1 (1.3%)	52 (65.0%)
Number of passengers satisfied with bus services	22 (27.5%)	6 (7.5%)	34 (42.5%)
Service reliability and punctuality	27 (33.8%)	9 (11.3%)	25 (31.3%)
Age and quality of vehicles	17 (21.3%)	3 (3.8%)	41 (51.3%)
The things we have implemented, e.g., km of new bus lanes opened, number of new shelters installed, etc.	19 (23.8%)	3 (3.8%)	41 (51.3%)
Fares	4 (5.0%)	1 (1.3%)	56 (70.0%)

5.2.5 Theme 4 – Performance monitoring

The officers were asked how bus policies and measures are currently monitored by their council. The most popular form of monitoring included service reliability and punctuality (60%), number of passengers per annum (53%), and number of passengers satisfied with bus services (41%). It was interesting to see continued monitoring carried out by councils given annual monitoring reports were abolished during the Local Transport Act 2008.

Table 5.12: Monitoring of bus policies and measures

Answer	Count	%
Number of passengers per annum	42	53%
Number of vehicle kilometres per annum	9	11%
Cost per passenger journey for services	25	31%
Number of passengers satisfied with bus services	33	41%
Service reliability and punctuality	48	60%
Age and quality of vehicles	19	24%
The things we have implemented e.g. km of new bus lanes opened, number of new shelters installed etc.	23	29%
Fares	4	5%
Not answered	20	25%

5.2.6 Theme 5 – Implementation barriers

The last section of the questionnaire asked the officers to identify which barriers have the greatest and least impact on implementation. The greatest barriers identified in the questionnaire included the availability of resources, characteristics of local authority (e.g. competence and size of staff) and coherence and comprehensibility of the written policy. Barriers identified in the questionnaire as having a lower impact on implementation included public opposition, the relationship between key people in council and local bus operators (which does not automatically imply that a poor relationship leads to a lack of collaboration, identified earlier as a likely reason for the low level of implementation of more complex measures), and reshaping or changes to policy measures by local implementation frontline staff.

Table 5.13: Barriers which have the greatest and least impact on implementation

Matrix row	1	2	3	4	5
Availability of resources (e.g. funding)	0 (0%)	3 (5.0%)	1 (1.7%)	15 (25.0%)	41 (68.3%)
Characteristics of local authority (e.g. competence and size of staff)	8 (13.1%)	18 (29.5%)	10 (16.4%)	16 (26.2%)	9 (14.8%)
Coherence and comprehensibility of the written policy	13 (22.0%)	23 (39.0%)	14 (23.7%)	8 (13.6%)	1 (1.7%)
Communication amongst staff involved in the policy implementation process	19 (31.7%)	20 (33.3%)	10 (16.7%)	9 (15.0%)	2 (3.3%)
Conflict, ambiguities or disputes between those involved within the implementation process i.e. not everyone involved has a shared understanding of what is to be implemented	5 (8.3%)	22 (36.7%)	19 (31.7%)	9 (15.0%)	5 (8.3%)
Economic situation of local bus operator(s)	2 (3.5%)	13 (22.8%)	13 (22.8%)	18 (31.6%)	11 (19.3%)
General economic, social and political conditions outside Council	0 (0%)	4 (6.7%)	16 (26.7%)	19 (31.7%)	21 (35.0%)
Interaction between policy makers, implementers from various levels of government, and other actors (e.g. interaction between council and bus operator)	4 (6.7%)	9 (15.0%)	21 (35.0%)	18 (30.0%)	8 (13.3%)

Table 5.13 contd.

Matrix row contd.	1	2	3	4	5
Local politics e.g. change of political control of Council or change of cabinet member responsible for transport	6 (10.0%)	9 (15.0%)	14 (23.3%)	15 (25.0%)	16 (26.7%)
Motivation and attitudes of those responsible for developing bus policies	15 (25.4%)	19 (32.2%)	14 (23.7%)	7 (11.9%)	4 (6.8%)
Motivation and attitudes of those responsible for implementing bus policies	13 (21.7%)	21 (35.0%)	10 (16.7%)	10 (16.7%)	6 (10.0%)
Public opposition	2 (3.3%)	12 (20.0%)	15 (25.0%)	23 (38.3%)	8 (13.3%)
Relationship between key people in Council and local bus operator(s)	13 (21.7%)	16 (26.7%)	13 (21.7%)	11 (18.3%)	7 (11.7%)
Reshaping or changes to policy measures by local implementation frontline staff	13 (23.2%)	13 (23.2%)	23 (41.1%)	7 (12.5%)	0 (0%)
Unforeseen practical problems (e.g. due to failure to achieve planning permission for a park & ride site)	6 (10.0%)	17 (28.3%)	22 (36.7%)	12 (20.0%)	3 (5.0%)

A comment box also enabled the officers to identify key barriers to implementation in their council area. Comments include: "limited funding," "fierce competition between operators," "political will of members," "physical space and layout of roads," "high car ownership," and "public opinion influencing outcomes." These listed barriers, particularly lack of resources, are expected; however, the contentiousness of some local transport initiatives raises questions as to whether public opposition is one of the least important barriers. Some of the comments, moreover, may be seen to contradict the questionnaire responses, as political will and public opinion were highlighted as important barriers. These findings provide the basis for deeper exploration through interviews with local authority officers, the findings of which are presented in the next chapter.

5.3 Theoretical analysis of online questionnaire

This section will analyse the results obtained in the survey conducted by 56% of public transport officers in the UK. The 10 variables of the new decision support framework are used to analyse the results and this in turn will help determine the barriers and enablers which have an impact on the implementation of local bus policy and the impact these barriers have on achieving objectives and reaching targets. Furthermore, it will help meet the second research objective identified in table 5.1.

- 1. Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.*

The questionnaire revealed a view that a written bus policy document should be in place to implement bus policy at a local level. The officers identified "coherence and comprehensibility of the written policy" as one of the greatest barriers to implementation. Meanwhile, it was found that 18% of local authorities do not have a specific bus policy document in place. In terms of policy objectives, 51.3 to 88.8% of officers included the listed policy objectives mentioned in the questionnaire, which demonstrates that councils recognise the importance of bus policy to overall transport objectives. However, although the questionnaire results reveal that councils are setting objectives, there were many areas

of concern highlighted throughout the questionnaire in terms of setting targets and implementing measures to achieve these objectives. For example, 44% of councils met most or more than half of the targets set in the LTP/S, while 19% did not have targets related to bus policy. These findings show inconsistency among councils in Great Britain, and setting targets is not considered as an important aspect of the policy process. Officers were also asked to select from a list provided the stage at which bus measures are in their city, in order to judge the implementation of different types of measure. However, some measures appeared to be less successful. The results also indicated there has been little implementation progress with certain bus measures since the last LTP/S and that certain measures present particular implementation difficulties. The results also revealed that continued monitoring is being carried out by councils. Overall, the results revealed a somewhat broken link between policy objectives, measures and the setting and monitoring of targets.

2. Availability of resources: Resources such as financial support are important; however, where resources are limited, it is necessary to maximise the use of available resources.

The officers were asked to identify which barriers have the greatest and least impact on implementation. The greatest barriers included the availability of resources, while “limited funding” was identified as a key reason for this barrier. However, the first point in this framework also revealed concerns with the unclear link between policy objectives and measures and the setting and monitoring of performance targets. Therefore, one reason for this may be the over-emphasis on the availability of resources, which is seen as the greatest barrier to implementation based on several references made throughout the surveys. This unclear link indicates that councils are in fact placing too much emphasis on “what” is needed to implement policy (i.e., resources) and instead they should be placing more emphasis on “how” to implement the policy in terms of targets, measures, and performance monitoring. Once this is clear, councils can then direct resources where needed.

3. Intra-organisation support and communication: Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.

The results provided limited information about intra-organisation support and communication. This could be due to officers answering the questionnaire questions in a much broader context in relation to their experiences of bus policy in their city, and not within their organisation. Therefore, further methods of data collection were employed later in the research to explore this issue.

4. Characteristics of organisations: Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).

The characteristics of organisations appeared to be a barrier for the implementation of bus policy at a local level. Some 15 officers could not indicate the number of teams within the Council's transport department who have responsibility for the implementation of bus policies. This could suggest they did not know whether there were such teams within the council, or that such teams do not exist. Another question in the questionnaire asked the officers for their perception of planned and actual implementation for the previous LTP/S. The fact that 14% of officers did not answer this question could indicate that they were not aware of success. These examples suggest that the characteristics of organisations are a barrier for the implementation of bus policy, however further methods of data collection such as telephone interviews and case studies were also used to explore this issue in detail.

5. Economic, social and political environments: Current and future economic, social and political environments play an important role on the outcome of the policy process.

The questionnaire results provided limited information about economic, social and political environments. However, it should be cautioned that questionnaires are sometimes completed by respondents in an abstract way without linking consideration of the questions to particular cases of implementation that might have made respondents think about

the issues in a more "hands-on" way. For example, it is quite surprising that "economic, social and political environments" was judged to be less important in their influence on the implementation process than some other factors, as one might expect such factors to be quite critical to political support for a scheme or measure. This demonstrates the value of the other forms of data collection used later in the research.

6. Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.

The questionnaire also revealed limited information on policy champions and whether they had an impact on the implementation of bus policy at a local level. Again, this could be due to officers answering the questionnaire questions in a much broader context in relation to their experiences of bus policy in their city, and not within their organisation or with reference to specific schemes.

7. Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.

The questionnaire also revealed limited information on bureaucratic power and whether it had an impact on the implementation of bus policy at a local level. The questionnaire was not an ideal method to obtain this kind of quite qualitative data.

8. Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.

Collaboration and interaction (or lack of it) between those involved in the policy process appeared to be a barrier for the implementation of bus policy at a local level. For example, a question in the questionnaire asked the officers if bus measures in their cities were implemented as planned and without problems. The result indicated that the policy measures

facing barriers are those that require collaboration with and action by the operators, where the local authority has little control. It was also found that operators do not always view participation in various bus schemes to be in their best commercial interests. This key issue was explored further in telephone interviews and case studies.

9. Policy remodelling: Limited changes to the policy should occur from the design stage right through to the implementation stage.

As with point 7, the questionnaire also revealed limited information on policy remodelling.

10. Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

Opposition, conflict and ambiguities were identified as a key barrier for the implementation of bus policy at a local level. The survey revealed that some officers identified key barriers in their area as "bus wars between operators" and "public opinion influencing outcomes." The findings from the questionnaire also suggest that the unclear link between policy objectives, measures and the setting and monitoring of targets, could even be related to political decisions not to want to identify unmet targets or may relate to the difficulty of collecting data and monitoring progress in the achievement of certain policies. On the other hand, like "economic, social and political environments", it was also surprising that opposition, conflict, and ambiguities were judged to be less important in their influence on the implementation process than some other factors. It was also expected that such factors would be quite critical to political support for a scheme or measure.

5.4 Summary

This chapter has presented the findings from the questionnaire conducted by 56% of public transport officers in the UK. The decision support framework was used to analyse the questionnaire results and this in turn helped to determine the barriers and enablers which have an impact on bus policy implementation in the UK. Furthermore, this chapter helps

answer the second research objective identified in table 5.1, which will be discussed in detail in chapter 9.

The theoretical analysis has identified five key elements of the framework that in the responses to the questionnaire were judged to have a significant impact on bus policy implementation at a local level. These include policy objectives; availability of resources; characteristics of organisations; collaboration and interaction between those involved in the policy process; and opposition, conflict and ambiguities. However, five elements of the decision support framework were not explored because there was limited data available on the issues associated with these elements. It is important to remember that the abstract nature of the questionnaire differs to the real-world experience of the interviewees. Therefore, complementary research methods were conducted to examine these elements further.

Chapter 6: Telephone interview results

6.1 Introduction

The previous chapter presented the first set of research results from the questionnaires conducted of 56% of public transport officers in Great Britain. This chapter will now present the second set of research results by detailing the findings from the telephone interviews. The telephone interviews were conducted with 10 of those public transport officers who answered the questionnaire to elicit a deeper understanding of the results, which simply could not be achieved from the questionnaire results alone. The telephone interviews aimed to elaborate on the answers from the questionnaires through a relaxed and confidential interview process.

Sections 6.2 presents the telephone interview results. These results are then analysed in section 6.3 which is based on the application of the ten-point framework. Similar to the questionnaires, the findings from the telephone interviews also address the second research objective to help meet the aim of this thesis. For ease of reference, the second research objective is addressed in table 6.1.

Table 6.1: Second research objective

Research Objective	
2 To understand the views and experiences of public transport officers regarding the key issues associated with the implementation of bus policies within Great Britain.	This objective seeks to use the findings of online questionnaires and telephone interviews conducted in Great Britain. This includes the views and experiences of local transport officers. It also seeks to understand areas of consensus and differences between respondents on a wide range of policy implementation issues.

6.2 Telephone interview results

Similar to the questionnaires, the telephone interview questions were structured under five themes used to organise the findings of this study and include: policy documentation;

policy responsibility; policy targets; performance monitoring; and implementation barriers. The following sub-sections present the telephone interview results of the 11 open-ended questions under the common themes. As the names of the interviewees remain anonymous, each interviewee is coded with ‘PTO’, as seen in table 6.2, along with their local authority area.

Table 6.2: Public transport officer name and local authority

Public Transport Officer Interviewee Name	Local Authority
PTO1	Midlothian
PTO2	Aberdeenshire
PTO3	Northamptonshire
PTO4	Medway
PTO5	City of Cardiff
PTO6	Borough of Poole
PTO7	East Lothian
PTO8	Wokingham
PTO9	Northumberland
PTO10	Leicestershire

6.2.1 Theme 1 – Policy documentation

The LTP/S sets out transport policies, objectives and vision for the longer term. The production of these documents is a statutory requirement of the Transport Act 2000 and Local Transport Act 2008. All Local Authorities in the UK (outside of London) are required to set out their plans and policies for transport and how they intend to implement them. Most officers interviewed said they did not have a specific bus policy document in place. However, some of the officers said the LTP/S is used as a reference and their “local bus policy is all contained within the LTP/S” (PTO6). Only one officer said they had a specific bus policy document which was a “daughter document” (PTO1) to their LTP that was adopted in 2012. The interviews identified several barriers that prevented councils from having a

specific bus policy document in place. For example, one officer said there was no “specific strategy” (PTO4) added to the latest LTP as it was a more “laid back” document this time round, with no need identified for a supporting strategy. Another officer highlighted that financial constraints and limited staff has resulted in their council not having a specific bus policy documents.

“...we have a section in the LTS, last one in 2007-2010. We were told in 2010 that the government had taken over but there has been no update since then... coming out of the recession it was to keep the previous plan going instead of coming up with a new one. Since then, it was supposed to be looked at 2015... Limited staff was devoted to that and now in 2016 it's still not done”. (PTO1)

In response to a further question, all officers agreed that having a policy document in place is important – yet few said that they actually had one. This is intriguing especially considering that 74% of the questionnaire respondents had claimed to have a written policy in place, with 49% claiming to have had one for greater than 11 years. Several examples of this discrepancy were raised in the interviews. One officer believed “councils want to give the impression how well they did,” while another officer thought it was a “reflection of the severe financial challenges that councils are facing now and in the future.” Another officer supported both these statements by saying there was a discrepancy because “people will always say they implemented their LTP successfully because they would have made sure they spent it [funding].”

Nonetheless, the officers noted the importance of this document in terms of communicating with local stakeholders and politicians, understanding of what they need to achieve, dealing with conflict from the public and politicians who might have a different perception on a particular policy, and a way to identify key milestones to be achieved.

“I do think they are helpful and how they are perceived by local stakeholders and politicians - both in terms of communication and getting a better understanding of what you want to achieve. It is helpful to have a strong written policy in place if ever dealing with conflict from the general public. It is also

helpful when discussing with politicians when they might have a different perception on a particular policy”. (PTO2)

However, as one officer pointed out, there are “no sanctions” (PTO1) if the council didn’t have this document in place and therefore there was no drive to use this document. Another officer also highlighted a lack of support and miscommunication for the document as key barriers related to a bus policy document.

“In 2010 I appointed a consultant to lead and got the funding to go forward, but [Regional Transport Partnership] came up with a template instead of paying a consultant. We were promised this new template and [Regional Transport Partnership] would pay for it. We were also told we could edit this template. This would have been fantastic savings, subsequently it took a long time to go through and the council didn’t take it”. (PTO1)

6.2.2 Theme 2 – Policy responsibility

This aim of this section was to unpack why certain answers were provided in the questionnaires in relation to responsibility for policy implementation. Eight out of ten officers interviewed said they knew the number of teams within their council's transport department; however, two officers said they do not know or that they would not call it a “team.” As mentioned in the previous chapter, this could also indicate confusion about small authorities having very small staff numbers in transport. The next question asked the officers to consider why 15 respondents in the survey did not identify how many different teams were within their council's transport department. The officers suggested they “don't have the teams” or it was a combination of both answers. Three officers thought it was related to communication issues and that “people can be naïve and don't want to take responsibility.”

“I think it’s a bit of both to be fair. Each team have different budgets and reporting structures. It comes down to communication a lot of the time, for example people changes positions so you don’t know who is coming or going in the council.” (PTO4)

“A lot of it is simply a communication issue.” (PTO5)

“I think a lot of councils are, like ours, naive and thought transport was a black art and only the people who deal with transport know anything about it...It can also be because the people in those positions are long in the tooth and a bit like dinosaurs. They are empire building rather than being able to work across partnerships and shareholders.” (PTO7)

This suggests a certain level of miscommunication and indeed lack of clearly allocated responsibilities within local authorities when it comes to bus policy implementation, which then undermines the broader process (including monitoring).

It was evident in the questionnaires that there were areas of concerns highlighted throughout (in terms of achieving bus policy objectives, meeting targets, and barriers related to policy implementation). The interviews revealed that the majority of officers agreed that there were inconsistencies and councils want to “give the impression how well they did.” This relates to the political pressure underlying the entire policy process, from design to implementation to monitoring.

“I think this is what they will say that about their LTP. They will spend the money every year which is often how people see the success of an LTP. Whether they have spent it on the right things or not is a different question. So, I think that’s where there is probably a little bit of a discrepancy. People will always say they implemented their LTP successfully because they would have made sure they spent it.” (PTO9)

Another question in this section asked the officers to comment on bus policy measures in their city. Fewer than half of the officers said they have implemented bus policy measures while three officers referred to political constraints that prevent bus policy measures being implemented as planned. This could help explain similar results found in the questionnaires where councils were less successful at implementing certain bus policy measures.

“What we really need is strong political will to overcome whatever opposition there may be” (PTO5)

“I think ours were implemented. It was just a case of having it supported properly so we could monitor what we achieved.” (PTO7)

“The very nature of implementing policy measures means that they may get changed along the way i.e. through political engagement and public consultation. This goes with the territory of working in a political environment.” (PTO10)

A final question in this section asked the officers to comment on why the survey revealed “maximum fares” and “reviewing current bus lanes” as the least successful bus measures. As previously suggested in chapter 5, maximum fares were not applicable to the officers involved while all officers said they had no involvement with maximum fares. One officer did however comment on the difficulties with maximum fares, stating:

“Maximum fares don’t work as far as we are concerned. It puts too much pressure on the operator, especially if their costs are higher than what the maximum fare is.” (PTO7)

In terms of reviewing current bus lanes, two officers said bus lanes weren’t a problem as they were a “rural authority” and there was “no appetite” to review current bus lanes.

“I don’t think we had any major problems in implementation, we are a rural authority so possibly we are implementing different policy measures.” (PTO2)

“Reviewing current bus lanes, we have 6 bus lanes although we have no appetite and no pressure to remove existing ones. We don’t have issues here.” (PTO4)

Meanwhile, two officers noted the difficulty in implementing bus lanes.

“One of the issues is implementing bus lanes, we haven’t introduced any for the last 10 years.” (PTO3)

“Bus lanes are positive if you had the road infrastructure for it. Unfortunately, in our area we don’t have the road infrastructure for them” (PTO7)

This suggests that reviewing of bus lanes was identified in the survey as the least successful bus measure to be implemented because some respondents may not have to deal with bus lanes and therefore this measure was not applicable to them. It could also suggest that, as PTO2 pointed out, there is no appetite and no pressure to deal with existing bus lanes.

6.2.3 Theme 3 – Policy targets

This series of questions asked the officers about bus policy targets in their city. Only one council said they met all their targets while three officers said they met most of their targets. Reasons for not meeting targets included a “lack of communication within the council and the community” and “a lack of advertisement and marketing,” which are closely related issues and essentially relate to difficulties with building public acceptability for new policy measures.

“The targets we had related to buses – the main one was bus patronage, which we were very successful with, we had another form of indicator which is access to employment by mode (walking and cycling), bus punctuality is another indicator and this was green. Satisfaction with bus services, we collect that one annually through a survey. It fluctuates between amber and green but is it relatively successful.” (PTO6)

“We managed to meet about 70% of the targets that the council set. The failing that we had was because we weren’t working across councils properly, not working with community groups and not using advertisement and marketing as well as we could have.” (PTO7)

When asked what more councils could do to achieve targets, three officers highlighted the need for further “financial support” to help achieve targets. However, one

officer said they succeeded in their own territory, and it was the “neighbouring authority that affected the outcome of targets,” while two officers said it was more of an issue with the actual targets. Other factors that are preventing councils from achieving targets include a “lack of funding” or “financial support” and “political will.”

“Funding. This year we only have a budget of £30,000. A new shelter can cost between £7,000 and £10,000. One raised curb could be £1200 so this £30,000 could only buy you a shelter and few raised curbs.” (PTO4)

“The political dimension comes in here. The council tries to set a LTS for 10 years, but in that time, you could have 2 different cabinets. Depending on their political view of the councils at the time, impacts on what you are able to deliver, or shapes what you are able to deliver. You may have to make adjustments.” (PTO7)

The officers were then asked if their council had policy targets. Six of the officers said they set targets in their council. In contrast to this, three officers said there was “little progress on setting targets since the latest LTP/S came into effect.”

“Apart from the ones from original strategy 07-10, the only extra target was on how to save money. We used to have a section in the strategy on how many shelters we had with disabled access built in and how many buses in the area were wheel chair friendly (equality act) However, that was stopped because we were near 100% so we took the target away as part of savings.” (PTO1)

“We don’t have targets since LTP2. We reduced down the level of targets and reporting measures back.” (PTO4)

“We achieved bus patronage. But there is no statutory requirement to set targets in the LTP.” (PTO5)

These results could help explain why targets are not seen as an important factor as identified in the questionnaires. The final question in this section asked officers if targets

have an impact on how policies are implemented in their city. More than half of the officers said targets have an impact.

“They do have an impact on how policies are implemented. In particular, they improved cycling facilities around the city and more trips are made by bike.” (PTO5)

“Yes. I do think they are beneficial to demonstrate previous success of activity and to support decisions for future investment.” (PTO6)

“The targets do impact on how we do the policies. They allow us to shape it better. Half way through the next transport strategy, I’m going to have to do a re-tender of the supported services... So when you put a tender out, those who are bidding for the route know exactly what milestones they want to achieve and when you want to achieve them.” (PTO7)

“Yes. They influence decision making and provide sound evidence base.” (PTO10)

There appears to be some confusion on this topic between a recognition of the importance of targets but unclear responsibility and focus on setting and meeting them. No doubt, the political sensitivity of the topic and public accountability exert some influence in this area, but there is a risk that the entire policy implementation process is undermined in the absence of a clear chain from setting objectives to implementing measures to setting targets and then monitoring the outcome. Without such a framework, it becomes difficult to gauge the success of particular measures and decide on future action.

6.2.4 Theme 4 – Performance monitoring

This section asked the officers if they thought it was important for monitoring to be in place to achieve bus policy. Eight officers felt it was important to have monitoring in place as it demonstrates that they are “...achieving objectives and public money is achieving outcomes” (PTO6) and it helps to “...develop a sound evidence base to influence decision making” (PTO10). Two of those eight officers also highlighted the importance of monitoring, stating:

“I think certain information that is required can show a trend of people using the bus services. Although we don’t have specific targets, we still have a lot of data coming in e.g. concessionary bus pass usage and the information that comes out of that can project bus usage. We have congestion measures which can also influence schemes going forward.” (PTO4)

“It’s very important to monitor. The biggest one to monitor is reliability. If reliability in the services isn’t there, then you get compliant after complaint after complaint. The next thing they talk about is comfort and again if the comfort isn’t right, it puts the people off. The number of passengers drop and services will start to be curtailed because operators won’t want to run them. Therefore, monitoring of services is a big one.” (PTO7)

However, two officers said there should be “less concentration on bus policies” and that it was less important now because there is no funding attached.

“I think it is more of a long-term process working with bus operators instead of working on policies. We need to concentrate on congestion in the area, not policies.” (PTO3)

“Previously there were rewards for meeting your targets. We used to get integrated transport blocked funding. But it’s not really important now because there is no funding attached to doing well and achieving bus policy measures.” (PTO4)

This result could indicate a concerning lack of focus on targets as a result of the decreased importance of the LTP/S, although this does not imply an abandonment of bus policies. Another question in this section asked officers what they thought constitutes good practice in monitoring. Examples of good practice include “consistency”, “reliability”, “monitoring something that is measurable”, “being able to present results clearly so non-transport people understand”, “customer satisfaction and finding out what the public think of the service”, “good policy document in place”, “monitoring punctuality statistics”, “simple and easy measurable targets in place”, “funds for future monitoring”, and

“regular bus forum meetings”. These examples suggested by the officers indicate that there needs to be a solid regime in place at a local level to monitor bus policies.

This section also asked the officers if more bus policy measures would be implemented as planned and without problems if stricter monitoring were in place, to which nine out of ten officers agreed. For example, one officer said it is crucial to have a “robust monitoring regime in place” because without that, “you won't be able to monitor performance.” Another officer said it demonstrates that they are “achieving objectives and public money is achieving outcomes” while another said, “without robust monitoring regimes you cannot develop a sound evidence base to influence decision making.” Two of those nine officers also highlighted the difficulties of having monitoring in place, stating:

“Yes. Our principal indicator is the number of people travelling on buses. That used to be a statutory indicator but it's no longer a statutory indicator. We have continued to apply that information and use it. I can't understand why the government don't think it's important for it to be statutory. Punctuality is statutory and we can see the benefits of that. But overall, we don't have to collect bus patronage which is quite bizarre really.” (PTO6)

“Yes definitely. The more monitoring you have in place, the more likely you are to achieve what you wanted to achieve. The biggest difficulty there is to figure out how you are going to do the monitoring, whether you have your balanced key card for what you want to implement as your strategy. You also have to have a balance on how you respond to the general public and day to day problems.” (PTO7)

This highlights the importance of having clear strategies and tactics, rather than simply implementing policies that are “do-able.” This, in turn, may improve policy development and collaboration, and promote an environment of stakeholder engagement because external stakeholders can understand the guiding logic and see evidence of progress.

Regarding the impact of funding on monitoring, one officer raised this issue by saying “council cuts” prevent putting monitoring in place. Similarly, another officer said

monitoring is “useful for driving future funding bids. If you can prove what you have done and that it can be achieved ... you have a good chance of continuing with your policy.” This indicates that councils want monitoring in place to improve their chances of future funding to monitor the measures that are in place. Again, this was an interesting result given the abolition of monitoring subsequent to the Local Transport Act 2008 and elaborates on findings in the previous sections.

6.2.5 Theme 5 – Implementation barriers

The last section asked the officers to rank the greatest and least barriers to impact implementation as identified in the questionnaire. In line with the survey findings, eight officers ranked availability of resources (e.g., funding) as the greatest barrier to implementation in their city.

“Funding has been an issue because we’re not in a position to subsidise evening or weekend buses.” (PTO3)

“Funding is the biggest barrier to implementation. When funding is scarce, we end up fighting with our local bus schemes. We are a very small team so we have a lack of resources and time put into certain things... The politicians around here do see the importance of it but I would say in the current financial climate, it’s fighting amongst others across all local authority budgets, not just transport that is a greater barrier.” (PTO4)

“Yes, funding is an increasing problem and we rely to a great extent on winning funding for specific projects like the local sustainable transport fund which has really helped us in recent years. But revenue funding is being squeezed to the extent that my authority and other authorities are in the process of reducing the amount they spend on supporting bus services.” (PTO6)

Meanwhile, eight officers did not agree that characteristics of the local authority was one of the greatest barriers.

“Characteristics of local authority is a relevant factor and we are fortunate in Aberdeenshire that we have competent staff and are quite well organised.” (PTO2)

“We are lucky here because we have a good group of people here who understand how it works and we have a good relationship with bus operators and so it does work well here. This is why we have a good partnership arrangement and we have been able to grow bus patronage in recent years.” (PTO6)

“For characteristics of local authority, it’s how well you are at talking to each other. Your bus policy and how it’s written could have a huge impact on young people and how they are able to access services. If you’re not talking to new services, that could be something totally missed.” (PTO9)

These findings are consistent with research by McTigue et al. (2017), Preston (2016), Lindholm and Blinge (2014), Argyriou et al. (2012) and Gaffron (2003) highlighting the difficulty that local authorities face in allocating resources to new transport policy initiatives. This is unsurprising, as lack of funding is the easiest and most natural barrier to nominate, but this does not mean that unlimited resources would ensure successful bus policy. In fact, one interviewee pointed out that “Resources is a bit of a red herring. It's important, but everyone will say that. I think you can do a lot without it. It's actually dealing with what you have got, than without.” Nonetheless, undertaking a policy initiative and without financial resources to follow it through suggests poor planning.

Most officers did not agree that public opposition had a minor impact on implementation. This response is in keeping with the findings across all sections of both the survey and the interviews. For example, some of the officers suggested public opposition has previously been a barrier in their area, stating:

“That’s becoming more noticeable over the years because of Facebook and Twitter complaints. Also, there’s a petition committee created by SMP, similar to what happens in parliament.” (PTO1)

“Public opposition can be problematic at times but being a rural authority, we have less controversial policies (e.g. removing parking). We have seen however, where people mightn’t like a particular bus stop but that’s about it.” (PTO2)

“Public opposition has the most impact on us. A lot of schemes do get stopped because of concerns from the general public and it has been a big challenge to try overcome this.” (PTO4)

“With some of the schemes we have put in place, there can be local opposition. I think it can be a bit of a problem because they can’t see the benefits of it. Same with bus services, people can be upset about not being able to get out of their house when they think the bus is on the way but it stopped outside their house. It’s just about their concerns and doing as much as we can.” (PTO8)

Similarly to public opposition, the majority of officers did not feel that the relationship between key people in council and local bus operators had a minor impact on implementation. Again, this response is in keeping with the findings across all sections of both the survey and the interviews. Some of the officers expressed the importance of the relationship between key people in council and local bus operators, stating:

“The relationship between the council and bus operators is key. We have a bit of an advantage there because our authority is a unity operation and we can’t interfere with the day to day operations.” (PTO5)

“...if you don’t have a good relationship with your operators, you will find it harder to achieve things and you could end up with people saying it’s not going to work. Your resources get smaller and smaller for what you actually want and this could be a big thing for councils in the future because of budget constraints. Each team within councils are being cut and then you lose your continuity with the operator and how people speak to them.” (PTO7)

“Absolutely, relationship between key people in council and local bus operators are critical and you need to get that good as possible.” (PTO9)

In comparison to the questionnaires, four officers believed reshaping or changes to policy measures by local implementation frontline staff had a lesser impact. However, three officers shared similar views to the survey findings and believed reshaping or changes to policy measures by local implementation frontline staff had an impact on implementation, stating:

That's becoming more noticeable over the years because of Facebook and Twitter complaints." (PTO1)

"Reshaping or changes to policy measures by local implementation frontline staff is a big barrier because you can get people who are very 'anti' and who won't operate because they had bad experience. This is key because they do things or shape things, they try do it to suit other people and means you could end up losing that operator out of that area. That happened to two of our neighbours which happened drastically a few years ago." (PTO7)

"For reshaping or changes to policy measures by local implementation frontline staff, I do think you need a one council approach and not feeling like 4 different departments not telling each other everything" (PTO9)

Finally, the officers were asked to comment on other barriers highlighted in the survey. About half of the officers said communication among staff involved in the policy implementation process was not a barrier in their city. Some of the officers expressed their success in communication, stating:

"We have good relationship with colleagues... We work well with all services in the organisation. We have good communication with operators. There is an obvious means of communications with other authorities."(PTO2)

We are a small team and we communicate well with each other and we communicate well with neighbouring authorities and the bus operators. It's working well here." (PTO7)

“I think communication amongst staff involved in the policy implementation process is fine as we try bring all teams together and we have fortnightly meetings called “transport matters” and that’s a place we have good communication. But we had to put it in place because we didn’t have good communication.” (PTO9)

Similarly, about half of the officers said motivation and attitudes of those responsible for developing or implementing bus policies was not a barrier in their city. For example, some officers expressed that there was positive motivation and attitudes in their council, stating:

“We have a very passionate team and are striving to improve the bus situation. Within the council, the head of service and assistant director have less involvement and so there is less importance attached to bus services. Like with all authorities, if you don’t have an interest or particular involvement, buses can be seen as a second-class mode of travel.” (PTO4)

“The motivations and attitudes of those responsible for developing or implementing bus policies isn’t a particular problem here. Most people are actually keen to implement schemes.” (PTO5)

There was also considerable mention of “political will” or lack thereof as a barrier. There may seem to be some contradiction in this finding since most authorities studied appeared to have documented bus policies that had been adopted politically. However, as identified by Schade (2003), measures that get political support at a general level (e.g., there should be more bus priority) may attract much less support once they require adding a bus lane on a *specific* street.

6.3 Theoretical analysis of telephone interviews

This section will analyse the results obtained in the follow-up telephone interviews conducted with 10 public transport officers who also completed the questionnaires. The 10 variables of the new decision support framework are used to analyse the results and this

in turn will help determine the barriers and enablers which have an impact on the implementation of local bus policy and the impact these barriers have on achieving objectives and reaching targets. Furthermore, it will help meet the second research objective identified in table 6.1.

- 1. Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.***

The majority of officers interviewed said they did not have a specific bus policy document in place. It is therefore difficult for local authorities to determine their bus policies, standards and objectives for the longer term. Interestingly, the interviews found that all officers agreed that it is important to have this document in place. The majority of officers also felt it was important to have monitoring in place to achieve bus policy measures. Furthermore, the majority of officers agreed bus policy measures would be implemented as planned and without problems, if stricter monitoring was in place. However, there was some contradiction between the survey results and the telephone interviews when asked what they thought constituted good practice in monitoring. According to the survey, “coherence and comprehensibility of the written policy” was one of the greatest barriers to impact implementation, whereas most officers from the telephone interviews did not agree with this being one of the greatest barriers. In terms of targets, only one officer said they met all their targets while three officers said they met the majority of their targets. The interviews revealed that there is confusion on this topic between a recognition of the importance of targets but unclear responsibility and focus on setting and meeting them. Similar to the questionnaire results, the telephone interviews have revealed that there is a broken link between policy objectives, measures and the setting and monitoring of targets.

- 2. Availability of resources: Resources such as financial support are important; however, where resources are limited, it is necessary to maximise the use of available resources.***

Similarly to the questionnaire, the availability of resources was ranked as the greatest barrier to impact implementation. The telephone interviews revealed that a lack of policy

resources prevented the councils having a bus policy document, achieving targets, bus policy measures and working to their full potential. However, as mentioned in the previous chapter, there may be over-emphasis on the availability of resources and councils are in fact placing too much emphasis on "what" is needed to implement policy (i.e., resources) and instead they should be placing more emphasis on "how" to implement the policy in terms of targets, measures, and performance monitoring.

3. Intra-organisation support and communication: Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.

The telephone interviews revealed that a lack of communication can have a negative impact on how policies are implemented. For example, half of the officers said communication was a barrier to implementation and this was particularly a barrier between neighbouring authorities, bus operators, stakeholders, politicians and the general public. The telephone interviews also revealed that a lack of intra-organisation support and communication can also have an impact on how councils meet targets and how bus policies are monitored.

4. Characteristics of organisations: Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).

In contrast to the questionnaire, the majority of officers interviewed did not agree characteristics of organisations was one of the most significant barriers to implementation. However, staffing difficulties such as shortage of staff or over-worked staff was raised on several occasions and were found to have an impact on policy implementation. Also, two officers did not know the number of teams responsible for implementation of bus policies. This may hint at a lack of clear lines of responsibility within local authorities when it comes to bus policy implementation.

5. Economic, social and political environments: Current and future economic, social and political environments play an important role on the outcome of the policy process.

The telephone interviews identified several examples of where political conditions had an impact on the relationship between objectives and results. Political constraints and (lack of) support prevented councils from having a bus policy document in place, implementing bus policy measures and achieving targets. In terms of social conditions that have an impact on the relationship between objectives and results, the results found neighbouring authorities and the current economic climate affected the outcome of their targets and monitoring of bus policy measures. Public opposition was also identified as another important factor that influenced the relationship between objectives and results. This contradicts the findings of the questionnaires where public opposition was not seen as a major barrier to impact implementation.

6. Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.

In comparison to the questionnaires, four officers did not agree policy champions had a minor impact on implementation. The telephone interviews revealed several examples of how competent and motivated staff can have an impact on other staff involved in the policy process. Furthermore, policy champions can have an impact on the development and implementation of bus policies and achieving targets. The interviews also revealed negative motivation and attitudes of staff could potentially jeopardise the working relationship between the council staff and bus operators. However, further methods of data collection such as case studies are required to explore the importance of policy champions when dealing with bus policy implementation.

7. Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.

In contrast to the questionnaires, three officers did not agree bureaucratic power had a minor impact on implementation. The telephone interviews revealed several examples of how bureaucratic power had a negative impact on councils. For example, one officer indicated that there needs to be a “one council approach” instead of several departments

because they had many instances of departments not telling each other everything and scowling with each other over resources. However, similar to the findings in the questionnaires, further methods of data collection such as case studies are required to explore the impact of bureaucratic power in detail.

- 8. *Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.***

In contrast to the questionnaires, most officers highlighted the importance of the interaction between the councils and bus operators and felt it was key to implementation to have a partnership arrangement. Several examples were also mentioned during the interviews that highlighted the importance of the interaction between policy makers, implementers from various levels of government, and other actors. The officers felt good interaction/collaboration was needed for policy implementation, achieving targets and to grow bus patronage.

- 9. *Policy remodelling: Limited changes to the policy should occur from the design stage right through to the implementation stage.***

The telephone interviews provided evidence of how policy may change during implementation. For example, one officer said policy change prevented their council implementing particular policy measures. Another officer said partners and stakeholder working groups are key so that policy does not change during implementation. This highlights the importance of limited policy remodelling, however, similar to the findings in the questionnaires, further methods of data collection such as case studies will be required to determine whether policy remodelling has an impact on bus policy implementation.

- 10. *Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.***

The results of the telephone interviews revealed that there were contradictions with the questionnaires and the majority of officers did not agree public opposition had a minor or less significant impact on implementation. In fact, the interviews provided several examples of barriers including conflict and ambiguities between councils and the public, local bus operators who competed with each other, and neighbouring councils who were fighting amongst each other for budgets. Furthermore, the interviews revealed that these conflict and ambiguities can have an impact on developing measures and implementing bus policies at a local level.

6.4 Summary

This chapter presented the second set of research results by detailing the findings from the telephone interviews conducted with 10 public transport officers from the questionnaire. The new decision support framework was used to analyse the interview results and this in turn helped to determine the barriers and enablers which have an impact on bus policy implementation in the UK. Furthermore, this chapter helped meet the second research objective identified in table 6.1.

The theoretical analysis has identified eight key elements of the framework that have an impact on bus policy implementation at a local level. These include policy objectives; availability of resources; intra-organisation support and communication; characteristics of organisations; economic, social and political conditions; bureaucratic power; policy remodelling; and opposition, conflict and ambiguities. Meanwhile, the framework identified two enablers which help to implement bus policy. These enablers include policy champions and collaboration and interaction between those involved in the policy process. However, three elements of the decision support framework will require further exploration as there was limited data available on the issues associated with these elements. These include policy champions; bureaucratic power; and policy remodelling.

Table 6.3 presents the application of the decision support framework to the two sets of data. Based on the results, each element in the framework was ranked as high, medium,

or low to identify the barriers to implementation. This is a qualitative ranking by the author not intended for robust application but merely for ease of presenting and discussing the results.

The next chapter will present the final set of research results from four case studies carried out in UK cities. These case studies provide a deeper understanding of the issues associated with bus policy implementation at a local level which may not be evident from the questionnaires and telephone interviews alone. The findings in table 6.3 will then be triangulated with the findings of the case studies to determine the greatest barriers to implementation. Moreover, this method of triangulation is important for verification and increases validity of the research findings.

Table 6.3: Theoretical analysis of questionnaires and telephone interviews

Variable	Barriers		Impact
	Questionnaire	Telephone Interviews	
1 Policy document	18% of local authorities do not have a specific bus policy document in place. "Coherence and comprehensibility of the written policy" was identified as one of the greatest barriers to implementation.	A majority of officers said they do not have a specific bus policy in place. All agreed it is important to have a policy document in place. The majority felt it was important to have monitoring in place to achieve bus policy measures. Policy measures would be implemented as planned and without problems if stricter monitoring were in place.	High
2 Availability of resources	Ranked as the greatest barrier to implementation. "Limited funding" identified as a key barrier.	Ranked the greatest barrier to impact implementation. Lack of resources prevented councils meeting targets.	High

3	Intra-organisation support and communication	Ranked fourth highest barrier to implementation.	Half of the officers said communication was a barrier to implementation. Communication barriers highlighted between neighbouring authorities, bus operators, stakeholders, politicians and the general public.	High
4	Characteristics of organisations	Ranked as the second highest barrier to implementation. 15 officers could not indicate the number of teams within the council's transport department who have responsibility for the implementation of bus policies.	A majority of officers did not agree this was one of the greatest barriers. But staffing difficulties such as shortage of staff or over-worked staff was raised on several occasions. Two officers did not know the number of teams responsible for implementation of bus policies.	High
5	Economic, social and political environments	Officers identified key barriers in their area as "bus wars between operators"; "political will of members"; "physical space and layout of roads" and "high car ownership."	Barriers include political constraints and support, the impact of neighbouring authorities, current economic climate and public opposition.	Medium
6	Policy champions	Ranked as having a lesser impact on implementation.	Four officers did not agree with the survey that this had a lesser impact on implementation.	Low
7	Bureaucratic power	Ranked as having a lesser impact on implementation.	Three officers did not agree with the survey that this had a lesser impact on implementation.	Low

8	Collaboration and interaction between those involved in the policy process	Ranked as having a lesser impact on implementation.	A majority of officers highlighted the importance of the interaction between the councils and bus operators and felt it was "key" to have "a good strong partnership arrangement"	Medium
9	Policy remodelling	Ranked as having a lesser impact on implementation.	One officer said policy change prevented their council implementing particular policy measures. Another officer said partners and stakeholder working groups are key so that policy does not change during implementation.	Low
10	Opposition, conflict, and ambiguities	Ranked as having a lesser impact on implementation. Some officers identified key barriers in their area as "bus wars between operators," "public opinion influencing outcomes."	Barriers include conflict and ambiguities between councils and the general public, local bus operators who competed with each other, and neighbouring councils who were fighting amongst each other for budgets.	Medium

Chapter 7: Case study results

7.1 Introduction

The previous two chapters presented the results from the questionnaires and telephone interviews respectively, which were conducted specifically with British local authority public transport officers. This chapter will now present the finding from four case studies with a much broader audience to complement the findings from the questionnaires and telephone interviews and in turn help inform the research questions. The case studies include interviews conducted with industry representatives based on specific bus schemes within the UK. The four schemes chosen include the Quality Contract Scheme in Tyne and Wear, the Fastlink Scheme in Glasgow, Lode Lane Route Enhancement Scheme (LLRE) in Solihull, and the ABC Smart Ticketing Scheme in Dundee. The findings from these case studies also address the third research objective to help meet the aim of this thesis. For ease of reference, the third research objective is addressed in table 7.1.

Table 7.1: Third research objective

Research Objective	
3	To understand the views and experiences of key players/stakeholders regarding the challenges, enablers and barriers associated with the implementation of four different bus schemes within Great Britain.
	This includes the views and experiences of key transport actors (officials from public bodies, public transport operators, local politicians and transport experts/stakeholders/interest groups) in the research process for four bus schemes in Great Britain. These case studies explore the success of these schemes to pinpoint challenges and barriers in the implementation of these schemes.

This chapter begins by describing the research method used to carry out the four case studies. Each case study is then presented separately which discusses the scheme background, interview results, theoretical analysis of results using the new decision support framework and concluding remarks. Finally, this chapter will conclude by combining the finding from each case study to identify the key barriers and enablers for policy implementation. The findings from this chapter will then be triangulated with the findings

from the questionnaires and telephone interviews to develop an overall understanding of bus policy implementation, which is presented in the next chapter of the thesis.

7.2 Case study 1 – Quality Contract Scheme, Tyne and Wear

The first case study examines the QCS in Tyne and Wear. This includes a case narrative, which will help inform issues arising from the case, followed by theoretical analysis and concluding remarks on this case study.

7.2.1 Case narrative

A total of eight interviews were carried out with representatives who were involved in the QCS scheme. Nexus, on behalf of North East Combined Authority (NECA) and the three bus companies (Stagecoach North East, Arriva North East and Go North East) played a key role in the schemes proposal, while the North-East England Chamber of Commerce (NEECC) and INTU had less involvement and therefore remained apolitical during the interviews. A list of interviewees and their role can be seen in table 7.2 below.

Table 7.2: QCS interview participants

Interview	Organisation	Number of participants	Role of participant in organisation
1	Executive body of the North East Combined Authority – NEXUS	1	Partnership Development Manager
2	Bus Company – Stagecoach North East	1	Managing Director
3	Executive body of the North East Combined Authority – NEXUS	1	Corporate Manager of Bus Services
4	Local Businesses Representative – INTU	1	Sustainable Travel Manager
5	Bus Company – Arriva North East	1	Commercial Manager
6	North East England Chamber of Commerce (NEECC)	1	Policy Advisor
7	Bus Company – Go North East	2	Managing Director and Head of Network Analysis
8	Tyne and Wear PTUG	2	Chair of group and member of group

7.2.1.1 Quality Contract Scheme (QCS)

Since the 1985 Transport Act deregulated bus services in the UK, with the exceptions of Northern Ireland and London, bus companies are free to run bus services where they choose and at their own commercial risk. They are responsible for routes, frequencies, fares, ticket types, vehicle types and customer service provision. Meanwhile, local transport authorities identify which routes are not covered by commercial bus companies and therefore invite tenders from them to operate these so-called “socially necessary” services.

Amendments were later made to the 1985 Transport Act and the 2000 Transport Act was introduced following the 1998 White Paper “*A New Deal for Transport: Better for Everyone*”. There have been several amendments to the act, with the latest being made by the Local Transport Act 2008 in England. The amended Acts saw the introduction of the possibility of different forms of partnerships and levels of partnership between bus companies and local authorities. These include Voluntary Quality Partnership, Statutory Quality Partnership, and Quality Contract. According to the 2008 Local Transport Act, a scheme can be made:

“if the relevant authorities are satisfied that it will help implement their bus strategies and policies and will improve the quality of local services by bringing benefits to persons using those services, or reduce or limit traffic congestion, noise or air pollution.”

Nexus, on behalf of NECA, were one of the first areas to put forward proposals to make a Quality Contract Scheme. The Act defines a Quality Contract Scheme as a scheme under which:

“a. the authority or authorities determine what local services should be provided in the area to which the scheme relates and any additional facilities or services which should be provided in that area; and b. local services may only be provided in that area in accordance with quality contracts (subject to some exceptions).”

Amendments to the 2008 Local Transport Act should make it easier for local authorities to enter into quality contracts. Nexus would therefore follow these latest amendments to the Act which include:

- Replacement of the existing requirement that a QCS must be the “*only practicable way*” of achieving the local authority’s policies with a more balanced set of public interest criteria; and
- Replacement of the requirement for schemes in England to be approved by the Secretary of State with a new duty to seek an opinion from an independent “*QCS board*” and to publish a response to that opinion.

The introduction of a QCS in Tyne and Wear would mean the local authority in place would take control of the entire bus networks in Tyne and Wear. The commercial network would be suspended and the local authority would oversee planning the bus services and timetables, and setting fare levels. They would be responsible for marketing the service and running the ticketing system. Bus companies would then bid for a contract to run the bus services and they would be paid by the relevant authority to do so. Fares collected on the bus would be paid to the local authority and competition between bus companies on the street would no longer take place, the competition instead taking place at the contracting stage.

7.2.1.2 QCS proposal

According to the Tyne and Wear Integrated Authority (2012), local bus services make an important contribution to the economy and the environment in Tyne and Wear. However, the Department for Transport (2012) pointed out that there are many long term issues to address when aiming to improve bus services. These issues include the decline in bus passenger numbers, fare prices increasing above inflation, lack of competition between bus companies, and services for communities not well-served by commercial services.

With these issues in mind, the ITA, who were the predecessor body of NECA, produced the 2012 bus strategy for the Tyne and Wear area. This strategy is aligned with current national policy and the third LTP for Tyne and Wear (2011-2021). It sets out the

three overarching objectives of the ITA and a list of specific deliverables derived for each objective. It also includes targets, monitoring, delivery options and action plans to achieve the objectives set out by the ITA. The ITA (2012) had three main objectives which were closely aligned to the Tyne and Wear LTP which were to:

- Arrest the decline in bus patronage
- Maintain (and preferably) grow accessibility
- Deliver value for public money

The 2012 bus strategy also includes three supporting targets that have been chosen to underpin the principal targets by allowing a more detailed examination of the influencing factors when reviewing delivery options and action plans. For example, the strategy mentions the importance of including customer satisfaction with fares and ticketing because research carried out by the Department for Transport (2009) shows that within the Tyne and Wear market, simplifying fares could increase demand by 2.7% and developing a Customer Charter could increase demand by 1.7%. According to ITA (2012), the three bus policy targets include:

- *“Increase total bus passenger journeys in Tyne and Wear from a baseline of 139 million to 149 million by 2022*
- *Maintain or increase the percentage of the Tyne and Wear population within 400m of a frequent (10 minute) daytime service at 56.8% by 2022*
- *Reduce the reliance of the Bus Network on public sector support from the benchmark of £0.49 in 2012.”*

Interviews with Nexus revealed other plans for targets which were not included in the 2012 bus strategy. These targets include accessibility and number of people using buses, while targets for air quality will be considered in the future.

“...we wanted to increase bus punctuality, they were checked every 6 months to see how we were achieving. If you set yourself clear objectives, with targets

and measure against those targets to see if you're achieving or not, you can then decide if your intervention is successful or not." [Interview 1]

The 2012 bus strategy states that reporting on these targets would take place on an annual basis to review the deliverables, as well as any changes. It also states that the strategy would be refreshed annually to take account of changing circumstances.

On 24th November 2011, the ITA directed Nexus to investigate the possibility of developing a QCS across the region as a possible mechanism for achieving the objectives set out in the 2012 bus strategy. This document includes a list of strategic deliverables to help achieve the objectives (ITA, 2012), which include:

- *“Fully integrated, multi-modal public transport network*
- *Unified and consistent customer offer and guaranteed standards of service*
- *Enhanced consultation on network changes*
- *All infrastructure is accessible and of high standard*
- *Adopt accessibility standards and targets*
- *Common brand and accessible, high quality buses*
- *Integrated network*
- *Affordability for the customer and taxpayer*
- *Simplified fares and ticketing offer*
- *Improved environmental standards.”*

The bus policy document also identifies key problems associated with the bus market in the Tyne and Wear area that the QCS was intended to tackle. The key issues include a long-term trend in the decline in bus passenger numbers for full fare paying adults and an increase in concessionary travel. It was proposed that the scheme would cover the 5 districts in Tyne and Wear mentioned in the bus strategy document, including Newcastle, North Tyneside, Gateshead, South Tyneside and Sunderland. However, the scheme would not extend to Durham and Northumberland which are areas covered by NECA. The following figure 7.1 illustrates the areas which the QCS would cover.

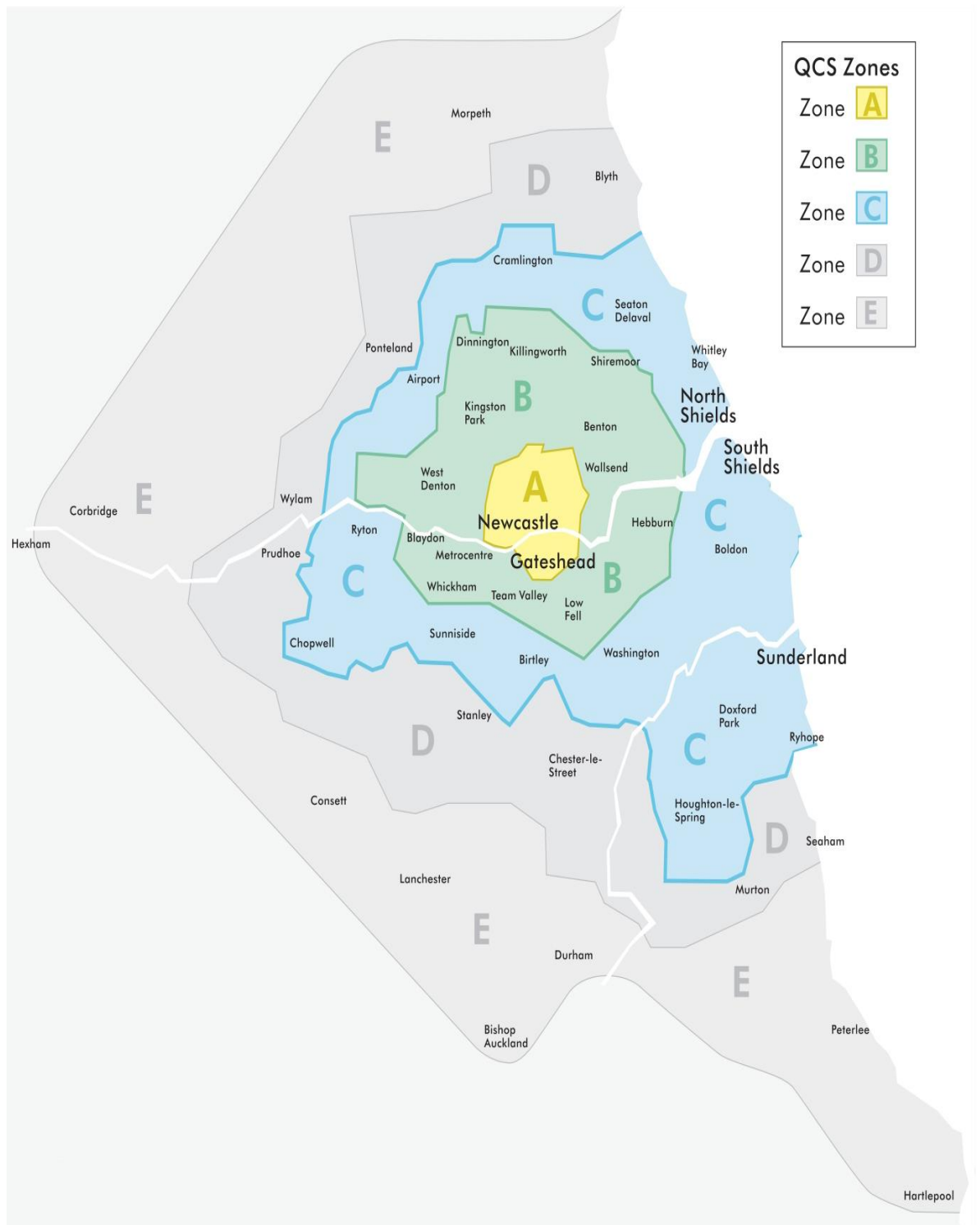


Figure 7.1: Geographical location of QCS bus services (TransportXtra, 2013)

Nexus revealed that having a bus policy document in place to help plan and implement the QCS scheme was “massively important” and “absolutely vital.” They felt this document gave them an opportunity to provide a case to the QCS Board that all policies were a-lined. They also mentioned that one of the statutory requirements of the QCS was to demonstrate that it would contribute towards the bus policy objectives and therefore it was important to have this document in place to demonstrate that.

INTU Group pointed out that they meet with Nexus regularly to discuss the challenges in Tyne and Wear. When the QCS was being proposed, they were keen to improve links to their shopping centre in the city centre and therefore felt that there should be one policy document in place to alleviate the challenges in place.

“You could argue if the QCS was the way forward. It’s important to meet because we are a travel generator and we rely of on the bus companies and they rely on us so we have to work together. I would like to see one document in place and having one common goal has to happen. At the end of the day we need to relieve congestion and get people to our centres.” [Interview 6]

The 2012 bus strategy also demonstrates how the targets would be monitored across Tyne and Wear which can be seen in table 7.3. These targets were designed through ongoing market research conducted both locally and nationally (ITA, 2012). However, a desktop review revealed that there are no specific monitoring reports available to check the progress of these targets.

Table 7.3: Measures, benchmarks and targets (The ITA Bus Strategy for Tyne and Wear, 2012)

Measure	Benchmark	Target 2022
Improve perception of punctuality	68%	78%
Improve actual punctuality of non-frequent services	90%	95% ⁷
Ensure that excess waiting time for frequent services is never more than Traffic Commissioner target of 1.25 mins	0.81	1.25 (mins) ⁸
Improve perception of reliability	65%	70% ⁹
Improve actual reliability	99%	99.5%
Improve overall customer satisfaction	80%	85%
Improve satisfaction with cost of fares	58%	68%
Improve customer satisfaction with range of available tickets	76%	85%
Decrease CO ₂ emissions	88.4 grams per passenger km	80.1 grams per passenger km
Maintain access to main centres within 30 mins (% of households in Tyne and Wear) Day time (10am)	57.1%	57.1%
Maintain access to main centres within 30 mins (% of households in Tyne and Wear) Evening (8pm)	52.1%	52.1%
Maintain access to local Centres within 30 mins (% of households in Tyne and Wear) Day time (10am)	97.7%	97.7%
Maintain access to local Centres within 30 mins (% of households in Tyne and Wear) Evening (8pm)	95.5%	95.5%
Maintain access to key employment sites within 30 mins (% of households in Tyne and Wear) Day time (10am)	62.2%	62.2%
Maintain access to key employment sites within 30 mins (% of households in Tyne and Wear) Evening (8pm)	41%	41%
Maintain access to General Hospital within 30 mins (% of households in Tyne and Wear) Day time (10 am)	67.5%	67.5%
Maintain access to General Hospital within 30 mins (% of households in Tyne and Wear) Evening (8pm)	57.6%	57.6%
Maintain access (within 400m) to frequent (10 mins) Service Day time (10am)	56.8%	56.8%

⁷ Target set nationally by Traffic Commissioner⁸ Target set nationally by Traffic Commissioner⁹ Target set nationally by Traffic Commissioner

Maintain access (within 400m) to frequent (10 mins) Service Evening (8pm)	0.2%	0.2%
Maintain access (within 400m) of a 15min Service Day time (10am)	77.7%	77.7%
Maintain access (within 400m) of a 15min Service Evening (8pm)	17.5%	17.5%

While the QCS was being prepared, it was intended that Local District Boards for the 5 districts would be set up and Nexus would provide regular monitoring reports to these Boards on the performance of the network in terms of how many passengers were being carried, what revenue was being taken, accessibility levels, customer complaints, passenger satisfaction etc. There would also be regular updates on these areas to be monitored which would have been defined in the QCS.

7.2.1.3 QCS preparation

Nexus were instructed to liaise with the bus operators in the area to determine whether a Voluntary Partnership Agreement (VPA) could be an alternative mechanism to a QCS. Amendments to the 2000 Act made by the 2008 Act introduced VPA which is a non-statutory term used to describe any agreement entered into voluntarily by one or more local authorities and one or more bus operators, and possibly other relevant parties. The Act also introduced Qualifying Agreement (QA), which is an agreement ‘certified’ by the Local Transport Authority to permit operators to agree to run services on the same route in a coordinated way (Rye and Wretstrand, 2014). Nexus was then instructed to report to the ITA on both proposals so the appropriate scheme could be chosen.

The key stakeholders involved in the scheme proposal included Nexus on behalf of NECA, 3 bus operators (Stagecoach, Go North East and Arriva), 5 districts (Newcastle, North Tyneside, Gateshead, South Tyneside and Sunderland) and their elected members that sit on the sub-committees. Nexus also revealed that they “...spent over a period of 5 years and 2.5 million on an internal team and advisors.”

While Nexus prepared for a QCS proposal, they followed a “Do Minimum” scenario which sets out a forecast of what would happen if no intervention were made, and

which is used to measure the benefits of the QCS and VPA. They predicted that bus patronage would continue to decline and that there would be severe cuts to bus services and discounted fares. At the time, Nexus completed “accessibility mapping” within each district and found a gradual decline in patronage because in some areas, “buses were re-trenching back to the main roads and you didn’t have the penetration for those services”. There was also concerns over funding from the taxpayer, with Nexus stating:

“The main expenditures are concessionary expenditures and we are paying the bus operators subsidy. These include child concessionary, about 12 million goes of subsidised services and providing services such as night time and Sundays when the bus operator doesn’t see a commercial opportunity for these services.” [Interview 1]

Therefore, they could see many benefits of introducing the scheme such as arresting the decline in patronage, maintaining accessibility and providing good value for money for the tax payer. The scheme would also use public subsidy to improve the bus services in the area. Nexus suggested the amount of public subsidy used to support bus services was unreasonable because “40% of public money is paid to the bus operators to carry the elderly and disabled”. They were also concerned over falling patronage while fares were “continuously increasing above levels of inflation.”

Further motivations for the scheme were recognised by NEECC and the Tyne and Wear PTUG, who felt there was a need to improve bus services. They also felt the motivation for the QCS was driven by local authorities responding to public pressure.

In terms of networks, Nexus would be in charge of the whole network and produce a yearly plan setting out proposed changes to the network on which there would be public consultation. Changes to the network would then take place once a year and there would be board meetings every few months between Nexus, bus operators and members of the public to talk about issues effecting the bus network.

The scheme would include a new governance system involving Nexus, the bus operators and members of the public to talk about issues effecting the bus network. Nexus would contract out every bus in Tyne and Wear with the exception of a number of routes

coming in from Durham and Fulham. These routes would bring people to Newcastle and would be classed as cross-boundary routes and so they would be considered separately. As Nexus owns the Tyne and Wear metro system which operates in all 5 districts, the QCS would introduce integrated bus-metro ticketing, similar to that in use before deregulation in 1986.

Nexus proposed that each bus operator would buy their own buses which last have a service life of approximately 15 years and the network would include a full fleet of Euro 5 buses. They suggested this was a way of bringing forward improvements and environmental benefits for people because the bus operators "...will not reach Euro 5 standards until 2019/20." They also indicated that there would be one set of fares applicable to all services and the QCS would provide simplified fares valid on any bus, with overall fare reductions for adults and significant discounts for children and young people. A single smartcard would also offer a "best price guarantee" for passengers. Other proposed changes included CCTV on board the buses and every bus would be painted the same colour so the buses would look the same to the members of the public.

During the QCS preparation, it was proposed that 5 Local District Boards would be set up in the area and Nexus would provide regular monitoring reports to these Boards on the performance of the network. These reports included passenger numbers, revenue taken, accessibility levels, customer complaints, passenger satisfaction etc. Nexus would also provide regular updates on these areas to be monitored and it would have been chartered throughout the QCS. The QCS was planned for a 10-year term to commence in April 2017.

While Nexus prepared a QCS proposal, the North-East Bus Operators' Association (consisting of three larger bus operators in Tyne and Wear) prepared for a VPA proposal. They argued a VPA would provide several benefits such as reduced multi-operator bus fares, 50 additional buses in the network, improvements to vehicle quality, some reductions in public expenditure on maintaining socially necessary bus services, and a far greater degree of dialogue between bus operators and the NECA.

7.2.1.4 QCS outcome

In July 2013, the ITA selected a QCS proposed by Nexus as the most suitable scheme for Tyne and Wear. Nexus were then instructed to conduct the formal consultation process and on 23 October 2014, the ITA sent a written request to the QCS Board for it to begin the performance of its functions under section 126D TA 2000 in respect of the proposed QCS. The legislation in place (Article 8) required Durham and Northumberland County Councils to be also included in the QCS since the ITA was being replaced by NECA.

In November 2014, Arriva also wrote a letter to the QCS board and contended that “NECA’s interests and those of the previous ITA were divergent in legal and factual terms because NECA was established on a different basis and its responsibilities covered a different geography”. They argued that NECA could therefore not satisfy the statutory test for making a QCS.

The QCS board took both sides into consideration and the Traffic Commissioner, who was the board lead, wrote to the Secretary of State for Transport to confirm the board’s intentions for hearings to take place with Nexus and the 3 bus operators (Arriva North East, Go North East and Stagecoach). The 3 operators were required to provide written statements of evidence, supporting documents and matters of issue by 30 January 2015. Meanwhile, Nexus were required to consider all points raised by the operators and provide their written evidence and matters of issue by 20 February 2015 (Traffic Commissioners for Great Britain, 2014).

The functions of the QCS Board, which consisted of the Traffic Commissioner who was chairperson of the board, were governed by the statutory provisions contained in the amended 2008 Transport Act and the associated Quality Contracts Schemes Regulations. Their role was to:

- *“To form an opinion on whether the conditions set out in the paragraphs of section 124(1) TA 2000 [“the Public Interest Tests”] are met in the case of the Proposed QCS”*
- *“To form an opinion on whether the authority or authorities have complied with the requirements of section 125(1) to (3) TA 2000”.*

On the 3rd November 2015, the QCS Board issued their decision and rejected the scheme proposal for a QCS. They concluded that Nexus failed to meet 3 out of the 5 tests and failed to comply with the statutory requirements on consultation in accordance with the Transport Act 2000. In addition to this, they felt the scheme could not demonstrate it would increase use of bus services, would not have provided value for money, and it would have imposed disproportionate adverse effects on operators. Therefore, the Traffic Commissioners decided the scheme was unaffordable and the councils would eventually have run out of money to keep the buses running. Table 7.4 illustrates the findings of the QCS Board's decisions and where they failed the tests.

Table 7.4: QCS board decision

QCS Board Opinion
The Transport Act 2000
<p><i>Section 125: Nexus fails to comply with the statutory requirements on consultation</i></p> <ul style="list-style-type: none"> • Section 124(1)(a): The proposed scheme cannot demonstrate that it would increase use of bus services because its affordability is not demonstrated • Section 124(1)(b): Service quality would improve • Section 124(1)(c): The proposed scheme would contribute to the implementation of the local transport policies • Section 124(1)(d): The proposed scheme does not provide value for money • Section 124(1)(e): The proposed scheme imposes disproportionate adverse effects on operators

7.2.2 Issues arising from the case

The following sub-sections discuss the issues that arose from the case study in terms of design, existing bus policy document, policy targets, monitoring of bus policies and barriers to implementing the scheme.

7.2.2.1 Issues with scheme design

One of the issues with the scheme design was that Nexus were the first area in the UK (outside of London) to try bring in a QCS and many other areas in the UK wanted to learn

from their experience. For this reason, both interviewees from Nexus felt they were at a disadvantage. One Nexus representative stated;

“...we took this as far as we could and we were testing the water for the whole country. In the court room, we had people from Manchester and Leeds watching to see what happens. So now it’s for someone else to try it and learn from our lessons. When the report came out to say we failed some of the tests, other areas stopped straight away and were turned off by the idea of implementing a QCS.” [Interview 1]

Nexus also encountered problems with the scheme design because they found it difficult to prove the benefits of the scheme outweighed the costs. The QCS Board found the scheme proposed by Nexus would cost more than they anticipated and the cost didn’t match that of the bus operators. Interviews with the bus operators revealed that they were of the opinion scheme would “cost millions and that’s the main reason it didn’t work.” They also indicated that the Quality Contract Board decided that Nexus hadn’t taken account of the risks properly and their numbers were “basically flawed”.

Nexus could have potentially made better predictions for the costs and benefits of the scheme if they had access to financial data by the bus operators. They revealed during the interviews that they had to “make some guesses about bus services and revenue being made by each of the services”. They also mentioned that “in an ideal world” the operators would have provided them with the data. However, the bus operators were not duty-bound or legally required to provide financial data to Nexus. While Nexus did ask for this financial data, one bus operator interviewee pointed out that:

“Possibly if they had our financial data, it would have verified their projections more accurately. A lot of the work our financial advisors did was proving the QCS wasn’t sustainable and Nexus’ figures were wrong based on our financial data.” [Interview 7]

Nexus admitted that there were avoidable problems when making a case for a QCS and this would have contributed to the scheme not being implemented. In their methodology, Nexus made changes along the way and they felt these changes were held against

them. As a result, the bus operators believed Nexus were “making it up as they went along” and there were mistakes made by their consultants. This in turn made the bus operators believe Nexus were plugging the gaps as they went along and developed a new plan for the scheme.

“As they realised the first idea wasn’t going to work, they came out with the second scheme which was basically the network of Tyne and Wear as it is, split up into 11 contracts.” [Interview 9]

With a lack of access to data and changes made during the methodology, the bus operators were then able to demonstrate to the QCS Board that Nexus had underestimated the costs of the scheme. The bus operators also believed that Nexus failed to carry out optimism bias correctly and “put the most optimistic view on it to deflate the cost of the QCS”. This was picked up by the QCS Board and therefore can be identified as another barrier which prevented the scheme from being implemented.

Although the scheme was rejected, Nexus declined the opportunity to appeal the decision by the transport commissioner because of the cost implications, stating;

“...it’s very risky if you’ve been told by an independent panel that you didn’t pass the tests, there would be massive legal challenges. It would be very costly and another 2 or 3 years of court cases and arguing and that’s not delivering anything for the passengers.” [Interview 1]

Another issue with the scheme design was evident where Nexus were unable to predict the outcome of the scheme. According to the bus operators, Nexus said their risk model could prove for most scenarios that they would be “making a surplus” and that they had steps in place if the scheme were to struggle financially in the long term. However, this was overturned by the QCS Board and they felt the scheme proposal from Nexus was financially unsustainable. In contrast to this, the bus companies argued that the QCS failed because Nexus were looking for new ways to generate cash and there was less emphasis on the importance of the customer and passenger.

“It was funding issues that we thought generated what they were after...they saw it a way forward of driving the economy. They saw the operators making profit and they felt they should tap into that. My view is that it was all about funding. As we went through the QC proposal and went to the public inquiry, it became more apparent to me it wasn’t about the customer. In some of the documents, the word “customer” or “passenger” were never mentioned.” [Interview 9]

“They just see the profits bus companies make each year and think that will shoot up some of the finances. But when you actually look at the finances of what they are wanting, it’s just not feasible.” [Interview 4]

Nexus said they were aware of the implications of the scheme design and that bus drivers might have to move companies. They were also aware that this could cause conflict between trade unions and drivers. They felt it was a “...big risk because drivers don’t like change”. Nexus also pointed out that this move would create industrial relations issues due to the different prices in wages for doing the same job. Meanwhile, the bus operators pointed out the implications of the scheme design and believed they would lose subsidy and revenue on their bus routes and it would have “*confiscated*” their business. They were also concerned with the impact of the cross-boundary services on their business if one of the companies did not win any of the franchise networks.

A document review also revealed that Nexus had difficulties with designing the scheme due to the legislation in place. While the policy in place was seen as “sound”, the legislative requirements were undoubtedly an issue and Nexus in turn failed three out of the five tests. This is particularly noticeable where a document review revealed that no QCS has been implemented in the UK since it was introduced in the 2000 Transport Act, which therefore indicates concerns about the legislation currently in place. An interview with INTU revealed “looking from the outside...the policies look tricky and hard to get by” which suggests the level of difficulty for implementing a QCS. Meanwhile, one interviewee from Nexus pointed out:

“...there were 3 tools, and if there were other options available or different models then it couldn't have been different. There were probably tools we could have used but we had to stick by legislation and we could only deliver what the legislation would let us deliver.” [Interview 1]

7.2.2.2 Existing bus policy document, policy targets and monitoring of bus policies

As previously mentioned, in November 2011 Nexus were instructed to consider alternative structures to deliver the bus strategy for Tyne and Wear and to investigate the possibility of developing a QCS across the region as a possible mechanism for achieving TWITA's objectives. Nexus also mentioned in the interviews that the QCS was designed to deliver the 2012 bus policy objectives and it “*fits very snugly*” within the policy document. The 2012 bus strategy also indicates that these supporting targets have been chosen to underpin the principal targets by allowing a more detailed examination of the influencing factors when reviewing delivery options and action plans. However, Nexus pointed out the new strategy is looking to see if they need to set new targets. Therefore, more work is needed on these targets to help improve the transport system in the area.

“We do have some targets, such as accessibility and the new strategy is looking to see if we need to set new targets. We have targets for the number of people using buses where we subsidise the buses and the operators themselves will have targets too. One of the things we will look at in the near future is air quality in city centres so in future there will probably be targets. We can't illuminate pollution but we can reduce it with cleaner buses.” [Interview 5]

The 2012 bus strategy states that reporting on these targets would take place on an annual basis to review the deliverables, as well as any changes. It also states that the strategy would be refreshed annually to take account of changing circumstances. However, interviews with Nexus revealed that the 2012 bus strategy which led the QCS has not been updated since and there are no documents available to check the progress of the targets set out in the bus strategy. Nexus said they failed to meet some of their targets due to “funding cuts” and were unaware of the current progress of meeting the targets.

“In hindsight it would have been good to measure our targets. I think that’s why we didn’t meet a lot of our targets and it just gets brushed to one side. If it was transparent, you would put that document out each year to check. What actually happens is we don’t recognise these missed targets and we decide not to talk about them. We did set targets in previous LTP but since then you won’t find any document to show you the progress against those and actually we have stopped checking now because of funding cuts. I couldn’t tell you now where we are against those targets and that’s a downside of all this.”

[Interview 1]

Nexus felt setting targets is an important part of the policy process because it “determines the success of the policy”, however they also believe having less targets was more realistic for implementing bus policy because “...there is a temptation to set a lot of targets that are unattainable”.

Nexus are currently developing a new bus strategy for Tyne and Wear, which is a daughter document of NECA’s LTP, with the involvement of local bus operators. However, they pointed out that they “don’t want the bus operators to write it” but we want their “involvement and endorsement for the plan.” During the preparation of this document, the NECA area were unable to decide on the election of a new mayor which is a significant barrier to developing a new bus strategy for the Tyne and Wear area. This also indicates a political barrier which has an impact on developing a new bus strategy.

“There was a problem were the NECA area was supposed to get a new mayor and they would have received a lot of money but all the seven areas couldn’t agree on the package from Government. They asked the Government for more money and the Government then scraped the deal. It’s very political and everyone wants to be the leader. Now there won’t be a mayor or a joint authority for the whole seven.” [Interview 1]

It was quite evident from the interviews that monitoring in place would help aid the implementation of bus policy measures in Tyne and Wear. Furthermore, setting targets from the start of the policy process and then periodically checking the performance of

these targets would help to inform future policy making decisions “because you have an idea of what’s working and what’s not.”

INTU agreed from an apolitical position that monitoring is important if it is used correctly and as a benchmark to work towards. However, the interviews revealed that there are concerns over monitoring in general because it is seen as an expensive process and time consuming. There were also concerns over the relevance of some targets being monitored and Nexus stated that they no longer track accessibility. Although the majority interviewed suggested it was important for monitoring to be in place to aid the implementation of bus policy measures in Tyne and Wear, they did not necessarily agree that if stricter monitoring was in place, the QCS would have increased chances of being implemented. They feel the QCS failed for other reasons such as affordability, risks involved and access to data from the local bus operators. For example, one interviewee from Nexus said;

“If you have lots of data that can demonstrate bus fares are going up, patronage is going down, the bus company is contracting and getting smaller around the edges, then that helps to build a case. That’s the power of monitoring. A, you know where you are and B, you got the evidence to show how buses are operating in an area. We had that in place for the QCS which suggested for the board to think our scheme wasn’t going to get to where we wanted to be.”

[Interview 5]

A document review on previous and current bus policy for the Tyne and Wear area has revealed that there were positive intentions to deliver bus policy by setting objectives and targets to achieve these objectives, as stated in the LTP3 and 2012 bus strategy. In particular the 2012 Bus Strategy was developed as an alternative structure to deliver the bus strategy for Tyne and Wear and to investigate the possibility of developing a QCS across the region as a possible mechanism for achieving TWITA’s objectives. However, the interviews have revealed concerns over the relevance of some of those targets listed in the strategy and uncertainty as to whether there is monitoring in place. Coincidentally, there are no monitoring documents available to check the performance of the specific

targets mentioned in the bus strategy which could suggest there has been less interest in bus policy since the QCS rejection.

7.2.2.3 Policy Implementation and barriers to implementation

A key barrier for the implementation of the QCS was that Nexus were unable to gain access to data from the bus operators. This clearly demonstrates opposition from the bus operators who were unwilling to share this data and as a result the relationships between Nexus and the bus operators were “damaged”. Resources in place were also seen as a barrier for Nexus because the bus operators were more successful at using what they had to fight the case for a QCS. Nexus admitted this was a key barrier stating the bus operators also “...committed a lot of time and resources to fighting...” and were ultimately successful.

Meanwhile, the bus operators felt the relationship with the bus operators was “pushed” and the interviews revealed that there were statements from one of the bigger bus operators about “burning down bus operators than giving it over to Nexus if the scheme happened”. However, following the rejection of the QCS, the bus operators suggested a “fresh start” and to “move on” would help improve this broken relationship, stating:

“The relationship between the bus operators and council was a problem but we need to start fresh and we need to move on now. The only way we can do that is if we work together. Quite a few of the offices we deal with have accepted that and are starting to work with us and we’re working together.” [Interview 4]

From an outside point of view, an interview with INTU suggested both Nexus and the bus operators were actually trying to deliver the same thing but arguing over who was better placed to do so. Meanwhile, NEECC pointed out that both Nexus and the bus operators got lost in the debate and ultimately missed out on important parts of the QCS proposal, which was the provision of an improved bus service. They also indicated the breakdown in the relationship between Nexus and the bus operators was obvious through press coverage. A desktop review of previous newspaper articles supported this statement

and according to The Guardian (2015), the QCS proposal was a "...culmination of a bitter, drawn-out battle..." between Nexus and the local bus operators.

Public opposition was also a key barrier for the implementation of the QCS and according to NEECC, the QCS was driven by local authorities responding to public pressure. They also believe this public pressure is due to a lack of competition and bus operators are making significant profits out of the service. However, they suggested the bus companies would argue otherwise because some areas are served well by the network.

While some people were in favour of the scheme, other people wrote to Nexus to express their opposition to the scheme because they felt Nexus were trying to take too much control. Nexus felt opposition was a key barrier for the scheme because "the bus drivers, bus companies and a lot of passengers didn't want change." Meanwhile, the bus companies understood the opposition from the public and believed there would be greater opposition if the scheme went ahead. For example, they mentioned:

"The public know what they currently got. The local authority suggested it would be helpful to control the bus service but ultimately, they can't afford to give everyone what they want which is a bus from door to door for whatever journey. It's just not sustainable." [Interview 4]

"It's really difficult for the average person to understand how buses work and are financed. Nexus got that wrong in terms of fleet replacement because they never had to do it. In the public mind, bus operators make lots of profits and don't put that back into the services to create more buses." [Interview 7]

In contrast to this, the Tyne and Wear PTUG were in favour of the scheme and therefore were reluctant to communicate with the bus companies. An interview with the bus operators revealed that:

"Through the process, we had the public transport users group opposing. We invited them in to talk to us, we invited them to presentations but the difficulty was that didn't want to listen and they didn't want to hear what we had to say – they had already made their minds up... If it had come in, I think there would

be a lot of opposition because it wasn't going to deliver what it promised in the proposal." [Interview 9]

Meanwhile, INTU revealed that they didn't see public opposition because "...people thought they were getting the London [system] and the Oyster card". Similarly, an interview with NEECC suggested there wasn't any public opposition because they didn't feel the public were "engaged with the debate". They also suggested that:

"...where you do have public opposition, it is the scepticism about the ability of the council to run any service and if you look at any of the debates online you would notice the scepticism coming up time and time again. They might be unhappy with a private bus operator running it but they aren't necessarily assured a council running it is going to be any better." [Interview 8]

Nexus felt a new governance system was needed because in some areas, local councillors "have no say at all" and they need to approach Nexus to resolve complaints or issues from the public. Meanwhile, they feel "the private bus company can do what they want." According to Nexus, there would be a more stable network because changes would only occur "through a democratically accountable process". Nexus also pointed out the motivation for less changes, stating:

"Each operator is responsible for designing their own network. They tend to change the network 8 or 9 times a year reflecting changes in demand such as a new shopping centre opening. This creates a lot of instability in the network and then people can't rely on the services. People can make big decisions based on bus services, for example buying a house or going to work, you check which buses go past it." [Interview 1]

An interview with INTU revealed that they believed the QCS would bring "more customers, easier access and congestion alleviation". They also believed it could have helped improve certain bus routes and improve currently poor public transport accessibility in some locations, for example:

“In East Gatehead, you have to change once and there doesn’t seem to be appetite to make the journeys across these regions. We would like to experiment with these links but there are places you can’t get the bus from.” [Interview 6]

Other proposed changes included CCTV on board the buses and every bus would be painted the same colour so the buses would look the same to the members of the public. Nexus pointed out the importance of these changes stating:

“Here if you want to make a five minute journey up the road you could pay three different prices. That’s quite confusing for passengers so we thought let’s have a model like Edinburgh and use 3 zones as it’s a much bigger area than Edinburgh...” [Interview 1]

The characteristics of the organisations involved also had an impact on the implementation of the QCS. For example, Nexus drafted in people from key departments at a senior level. They believed they were competent staff for delivering the scheme, however, they did admit to making changes to their methodology when preparing the QCS proposal. Mistakes were also made by their consultants which were in turn picked up by the QCS Board which was one of the reasons why they rejected the scheme. It would therefore appear that Nexus struggled to compete against the bus operators because they had a smaller organisation with less skilful and competent staff. One interviewee from Nexus pointed out that:

“We are a small firm with a small legal team and economic advisers. The 3 bus companies are much bigger firms than us and corralled much bigger legal teams to take us on. Ultimately, when we got in front the QCS board, we took about a year to educate 3 people on the work we had done for the previous 5 years.” [Interview 5]

In comparison to Nexus, it would appear that from the decision of the QCS Board, the bus operating companies held were stronger in terms of size and competency of staff and were able to present a stronger case to the QCS Board on the prediction of the scheme. Nexus also admitted it was difficult to compete with the bus operators, stating:

“The staff are commercially minded and had some clever people to work against what we were trying to do. If we had more of a commercial background, we could have had stronger arguments that we later got challenged on.” [Interview 1]

The interviews also revealed the bus operators could see these weaknesses with Nexus in terms of characteristics. For example, the bus operators said there needs to be “a whole army of people” to run a bus network and Nexus didn’t have that because they had to “slim down in recent years”. They also felt Nexus was short of skilled people and some staff were employed because there is a current shortage of people who specialise in bus management within the UK. An interview with the operators revealed that:

“When you’re in a commercial business, particularly for buses where there is a shortage of skilled people across the UK, it’s not difficult to find a job in bus management. The likelihood is that the people working in the commercial field in Tyne and Wear would go work somewhere else than Nexus. It was rather optimistic to assume all the expertise would suddenly go and work for Nexus. Nexus are actually short of that expertise.” [Interview 7]

Although the bus operators felt size of staff and competency were key barriers, they did however mention that they were working with “good people” at Nexus. However, they felt that in terms of preparing a QCS, many of the people working there “...would be way out of their depth and they wouldn’t have the expertise to deal with this.”

The availability of resources was also another barrier for the implementation of the scheme and was one of the key reasons why the QCS Board rejected the scheme proposal from Nexus. They felt the bus operators should be compensated if the scheme was introduced. The interviews revealed that the bus operators also felt this was a barrier and said it was “...simply not financially sustainable”, would “...cost the local tax payer a huge amount of money with no real benefits”, and involve “...issues in the future in terms of pension liabilities”. However, Nexus were reluctant to say resources such as funding were an issue and said the decision came down to modelling predictions and they couldn’t convince the QCS Board that the scheme was affordable.

In terms of preparing the actual scheme, resources were not a barrier for Nexus and they revealed that they “...spent over a period of 5 years and 2.5 million on an internal team and advisors.” Given the recent cutbacks and a lack of funding in local authorities across the UK, this would undoubtedly have been a barrier for other local authorities. Nexus did however highlight the importance of having support from the five districts in Tyne and Wear and said:

“At the time, money wasn’t an object. They could see the prize at the end and were willing to chuck money at it. We spent millions putting this business case together and making sure it was legally sound.” [Interview 1]

7.2.3 Theoretical analysis of Quality Contract Scheme

In line with the theoretical analysis carried out on the questionnaires and telephone interviews, this section will also analyse the results obtained in the interviews carried out with representatives from the Tyne and Wear on the QCS. The 10 variables of the decision support framework are used to analyse the results of the interviews and this in turn will help determine the barriers and enablers which have an impact on bus policy implementation. Furthermore, it will address the third research objective to help meet the aim of this thesis.

- 1. Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.*

The results of the interviews indicate that at the time of the QCS proposal, a written bus policy document was in place which included a bus strategy document prepared on behalf of the Tyne and Wear Integrated Transport Authority. This document covered bus policy for the 5 districts in Tyne and Wear which includes Newcastle, North Tyneside, Gateshead, South Tyneside and Sunderland. Interviews with Nexus revealed that they had taken into consideration policy objectives, measures and setting and monitoring of targets. They mentioned that policy documents are “absolutely vital to have in place” and that the motivations for the QCS was to meet the three objectives of the bus strategy.

In terms of policy targets, both interviewees from Nexus believed targets have an impact on how bus policies are implemented in the Tyne and Wear area. The current bus strategy includes targets while a new bus strategy will look to see if they need to set new targets. However, it would also appear that targets can sometimes be perceived as a “nuisance” and this was noticeable when Nexus said “...there is a temptation to set a lot of targets that are unattainable but our view is to have less targets but more realistic.” Furthermore, it would appear targets are less important now that the QCS didn’t follow through. This was noticeable when Nexus revealed “...a lot has changed since that work was done on the QCS so you could question how relevant some of those targets are to what we’re currently working on.”

The interviews revealed that monitoring was an important stage of the policy process and that monitoring would have been in place for the QCS. It was proposed that there would be regular updates on areas to be monitored and it would have been chartered throughout the QCS. Nexus believed setting targets from the start of the policy process and then periodically checking the performance of these targets would help to inform future policy making decisions “because you have an idea of what’s working and what’s not.” Similarly, an interview with INTU agreed from an apolitical position that monitoring is important if it is used correctly and as a benchmark to work towards, saying “You can have the policy in place but what’s the point if you don’t monitor it.”

However, there would appear to be a lack of interest in the current bus policy for Tyne and Wear because the 2012 bus strategy which led the QCA has not been updated since. Therefore, the bus policy objectives remain the same which were included in in the 2011-2021 LTP. This could also suggest that the policy in place was tailored to suit the requirements of the QCS proposal. In line with this, one bus operator mentioned that Nexus were “making it up as they went along”. However, Nexus mentioned they are currently refreshing the bus strategy with the involvement of local bus operators. Overall it is evident that there were some issues with the policy and legislation in place because a board chaired by the Traffic Commissioner for the North East found that Nexus failed to comply with three out of the five statutory requirements in accordance to The Transport Act 2000. It is also evident that there was an unclear link between designing the policy,

setting targets and suitable measures to achieve those targets, and monitoring those targets for a QCS to be implemented.

Interviews with Nexus, the bus operators and NEECC indicated a key barrier for why the QCS failed to be implemented was actually due to the legislation in place at the time and not the actual policy. They believed that the policies in place were “sound” and that there was general agreement between Nexus and the bus operators about the objectives they were trying to achieve. With most interviewees suggesting the legislation was a barrier and with no other QCS implemented in the UK over the past 15 years, it is quite evident that there are flaws within the Local Transport Act which provide the statutory requirements to implement a QCS at the time.

2. Availability of resources: Resources such as financial support are important; however, where resources are limited, it is necessary to maximise the use of available resources.

The interviews revealed Nexus had the resources in place in terms of funds to promote the scheme. They felt policy resources may have been an issue for other local authorities to promote the scheme but their Managing Director did a “good sales pitch” and they “spent millions putting the business case together and making sure it was legally sound”. However, there appeared to be concerns over the costs of running the scheme. When question 1 of the interview asked how much the scheme would cost, there was some discrepancy between the answers. The cost of the scheme indicated by Nexus did not match that of the bus operators and therefore the bus operators believed this was a key reason why the scheme was not implemented.

In contrast to the opinions of Nexus who felt resources were not an issue, all three bus operators felt strongly that policy resources were a key barrier to the implementation of the QCS. They believed it wasn’t financially sustainable, would cost the local tax payer a huge amount of money with no real benefits, and involve issues in the future in terms of pension liabilities. Furthermore, the bus operators suggested Nexus would take away the resources of the bus operators if the QCS was to come into effect. They felt Nexus

could “just see the profits bus companies make each year” and it would “help their funding gap that they were going to have in the future”.

After the decision by the Traffic Commissioner that Nexus failed 3 out of the 5 tests, Nexus declined the opportunity to appeal the decision because it would have been “very costly”. This highlights the importance of policy resources because if Nexus went for a VPA in 2009, they would have saved a lot of their resources. On the contrary, if they had the funding in place to appeal the decision by the Traffic Commissioner, they could have won their case and gained more in terms of resources.

3. Intra-organisation support and communication: Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.

The result of the QCS being rejected would suggest the bus operators had stronger intra-organisation and communication in comparison to Nexus. Nexus felt the bus operators “corralled much bigger legal teams” to take them on which indicates they had more support. Several mistakes were made by Nexus which would also indicate a lack of support and communication. For example, they admitted to making “changes along the way” and these changes were held against them by the QCS Board. They also admitted to having “weaker parts” of their case and “some mistakes” made by their consultants. Furthermore, they could not prove to the QCS board the affordability of the scheme, which was one of the tests they failed. Meanwhile, the bus operators had the support and communication to work against Nexus and to find their flaws. One bus operator said, “A lot of the work our financial advisors did in proving the QCS wasn’t sustainable and Nexus’ figures were wrong based on our financial data.” This higher level of support and communication of the bus operators was therefore one contributing factor to the rejection of the QCS.

4. Characteristics of organisations: Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).

Both Nexus and bus operators felt the characteristics of their organisation was not a barrier for the implementation of the scheme. Nexus felt they were “quite lucky” because they were “quite a big organisation and drafted in key people and from a very senior level”. They also believed these people were “competent in what they do”. However, Nexus contradicted themselves when one interviewee from Nexus said, “it took about a year to educate 3 people” on work they had done in the past 5 years. Therefore, this shows that they may not have had the staff capacity in place that they had originally stated.

Nexus also indicated that a key reason for why they failed to meet the requirements of the QCS was due to being a “small firm with a small legal team and economic advisers.” They also felt that the bus operators had staff who were “commercially minded” and “clever people” who worked against their case for a QCS. The fact that this was a key reason for why the scheme was not implemented proves that the bus operators held stronger characteristics within their organisation, in comparison to Nexus. This also supports the opinions of the bus operators who felt Nexus lacked important characteristics within their organisation. Although the bus operators felt Nexus were “short of expertise”, they mentioned that there were some staff from Nexus that were “good people” and who they would work with regularly. However, they felt that “certainly size and competency of staff” was an issue.

5. Economic, social and political environments: Current and future economic, social and political environments play an important role on the outcome of the policy process.

This case study revealed several barriers associated with economic social and political conditions. Economic barriers were evident when the QCS Board rejected the scheme because Nexus could not prove its affordability and value for money. In line with this, the bus operators stated that Nexus had spent “£2.4 – 2.6 million of “tax payer’s money” to prepare the proposal for the scheme.

In terms of social barriers, Nexus said one of the motivations for the QCS was to create a more stable network for the people living in Tyne and Wear. They feel the current

network “...creates a lot of instability...and then people can’t rely on the services” because the bus operators “tend to change the network 8 or 9 times a year reflecting changes in demand such as a new shopping centre opening”. Meanwhile, an interview with INTU revealed that their only concern was with getting people to their shopping centre regardless of how the bus services were run, stating “At the end of the day we want people to get to our shopping centres by a public or private company – we would support either.” Although Nexus pointed out many benefits of the QCS for serving the area, it was evident in the proposal that their services would not extend to Durham and Northumberland which are areas covered by NECA. Therefore, this could have created another social barrier if the scheme was implemented.

Political barriers were also evident during the QCS proposal. For example, Nexus pointed out that the NECA area was unable to decide on the election of a new mayor which was a barrier to developing a bus strategy for the Tyne and Wear area. They suggested it was “very political and everyone wants to be the leader”. They also mentioned that NECA asked the Government for more money and the Government then scraped the deal because they couldn’t decide on a Mayor.

6. Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.

It is quite evident from the interviews that there were two lines of policy champions. These include both the team from Nexus and the 3 main bus operators, including Go North East, Stagecoach and Arriva. Interviews with Go North East said Arriva had a lesser role because they were the “minority player in the market” and therefore Go North East and Stagecoach were the main policy champions who worked together. The interviews suggested that both Nexus and the bus operators worked equally hard dealing with the QCS inquiry, however it was the bus operators who saw the case follow through from beginning to end. An interview with the bus operators revealed they were successful because they decided to tackle Nexus “from a critical point of view” and to determine that the QCS was “unaffordable and not practical”.

- 7. *Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.***

Issues with bureaucratic power was raised during an interview with Nexus who revealed that extra data provided by the bus operators could have helped to inform people about what the scheme would deliver. However, they suggested that they didn't want to share this data because "it also adds another layer of bureaucracy with meetings and the bus companies aren't used to that exposure". No further issues in terms of bureaucratic power or hierarchical control were highlighted in this case study.

- 8. *Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.***

Collaboration and interaction were important factors for the preparation of the QCS. This was evident where the Tyne and Wear ITA directed Nexus, on behalf of NECA, to investigate the possibility of developing a QCS across the region as a possible mechanism for achieving the objectives set out in the 2012 bus strategy. Further collaboration and interaction took place between Nexus and the 3 main bus operators in the area (Stagecoach, Go North East and Arriva) to determine whether a VPA could be an alternative mechanism to a QCS. During the lead up to the QCS inquiry, regular meetings were also held with local councillors, INTU and NEECC.

In terms of the QCS development, Nexus proposed that Governance arrangements be set up where local councillors would have regular meetings with Nexus, the bus operators and members of the public to talk about issues effecting the bus network. This indicates that Nexus were willing to collaborate and interact with key actors involved in the scheme.

However, it was also evident from the onset that collaboration and interaction were barriers to the implementation of the QCS. This was particularly noticeable when Nexus said the relationship between themselves and the bus operators was “damaged” during the QCS process. Furthermore, they stated that the bus companies were unwilling to share data and this in turn prevented the scheme from being implemented. In response to this, the bus operators were unwilling to share data because they felt the Combined Authority wanted to take “control” of the bus services in Tyne and Wear and to “make profits” from these services. This clearly indicates poor collaboration and interaction between those involved in the policy process can dictate the outcome of the implementation process. This is also evident where the QCS proposal was seen to take off due to good collaboration and interaction between those involved, and then slowly deteriorated towards the end due to poor collaboration and interaction between Nexus and the bus operators, resulting in the scheme not being implemented.

9. Policy remodelling: Limited changes to the policy should occur from the design stage right through to the implementation stage.

A contributing factor to the QCS not being implemented was due to changes which occurred during the design stage. Nexus admitted that there were avoidable problems when making a case for a QCS and this would have contributed to the scheme not being implemented. They said they made “changes along the way” which were held against them. This in turn made the bus operators believe Nexus were plugging the gaps as they went along and developed a new plan for the scheme. Nexus also pointed out that the general public did not welcome changes and this was a barrier for during the QCS proposal because “nobody likes changes” and “there’s a natural resistance to change”. This indicates the importance of having limited changes to the policy from the design stage right through to the implementation stage.

10. Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

From the early stages of conducting the interviews, it was quite clear that opposition, conflict and ambiguities had a negative impact on the QCS proposal. In terms of opposition, the Tyne and Wear PTUG supported Nexus and were in favour of the scheme, however they strongly opposed the opinions of the bus operators about the scheme. The bus operators pointed out that they "...invited them to presentations but the difficulty was that didn't want to listen and they didn't want to hear what we had to say - they had already made their minds up...".

Meanwhile, opposition from the public was mixed and Nexus felt it was "50/50" because some people bought into the idea of the QCS, while "some people even wrote into us to tell us how much they objected." An interview with INTU revealed that they didn't see public opposition because "...people thought they were getting the London and the Oyster card". Similarly, an interview with NEECC suggested there wasn't any public opposition because they didn't feel the public were "engaged with the debate". This broad range of answers identified in the interviews suggest that people were not fully aware of the intentions of the scheme and therefore resulted in mixed opinions from many people.

Conflicts and ambiguities also played a key role in the rejection of the QCS. This was particularly evident with the relationship between Nexus and the local bus operators. While Nexus stated the relationship was "damaged" during the QCS process, they also suggested there were originally "good links" but the QCS had resulted in the bus operators using "a lot of time and resources" to "fighting" their case and ultimately, they were successful.

Similarly, the bus operators felt this relationship was damaged and conflict and opposition was particularly evident during the interviews when one bus operator said, "There were statements from one of the big operators about burning down bus operators than giving it over to Nexus if the scheme happened...". This indicates the enormity of conflict between Nexus and the bus operators and the level of opposition for the scheme. However, the bus operators also suggested that relationships between Nexus and themselves have improved since the QCS proposal and that they are "...trying to build the relationship..." and have started "...working together".

On the contrary, it was interesting to hear the opinions of NEECC and INTU who remained apolitical throughout the interviews. They suggested that this “serious breakdown in the relationship” was obvious through press coverage and that there actually “...trying to deliver the same thing but arguing over who were better to implement the scheme”. Consequently, these interviews have revealed that the level of opposition, conflict and ambiguities are key barriers which prevented the QCS being implemented.

7.2.4 Summary of case study 1

The first case study has examined the QCS in Tyne and Wear that was rejected in 2015. In order to understand why this scheme was not implemented, a theoretical analysis was carried out using the decision support framework. Eight of the ten variables identified barriers to this scheme. Firstly, there were barriers associated with the *policy objectives* and it was found that the 2012 bus strategy which led the QCA has not been updated since. As a result of this outdated document, Nexus expressed concerns over the current targets in place and doubt whether some of the targets are still “relevant”. Meanwhile, the interviews revealed that monitoring was an important stage of the policy process and that monitoring would have been in place for the QCS. It is therefore evident that there was an unclear link between designing the policy, setting targets and suitable measures to achieve those targets, and monitoring those targets for a QCS to be implemented. Another key barrier which had an impact on the scheme includes the legislation that was in place. Prior to the QCS proposal in Tyne and Wear, no other QCS was implemented in the UK over the past 15 years. This clearly indicates that there are flaws within the current Transport Act which provides the statutory requirements to implement a QCS – it is “too difficult” to use.

Next, a document review and interviews revealed that there were many concerns over the availability of resources for the scheme. On the 3rd November 2015, the QCS Board issued their decision and rejected the scheme proposal for a QCS because the scheme was unaffordable and the councils would eventually have run out of money to keep the buses running. Nexus argued that resources were not an issue, however all three bus operators strongly felt policy resources was a key barrier to the implementation of the QCS. They believed it was financially unsustainable, would cost the local tax payer a

huge amount of money with no real benefits, and involve issues in the future in terms of pension liabilities. Furthermore, the bus operators suggested Nexus would take away the resources of the bus operators if the QCS was to come into effect.

It is evident from the interviews that Nexus lacked intra-organisation and communication in comparison to the bus operators. The bus operators “corralled much bigger legal teams” to take them on which indicates they had more support. Nexus admitted to having “weaker parts” of their case and “some mistakes” made by their consultants. Furthermore, they could not prove to the QCS board the affordability of the scheme, which was one of the tests they failed.

Both Nexus and bus operators felt the characteristics of their organisation was not a barrier for the implementation of the scheme. However, it is clear from the interviews that Nexus lacked important characteristics because they mentioned “it took about a year to educate 3 people” on work they had done in the past 5 years. They also mentioned they had a “small firm with a small legal team and economic advisers.” Therefore, this shows that they did not have the competent staff in place, which they had originally stated. Meanwhile, the operators appeared to have stronger characteristics within their organisation where it was revealed that they had staff who were “commercially minded” and “clever people” who worked against their case for a QCS.

This case study revealed several barriers associated with economic social and political conditions. Economic barriers were evident when the QCS Board rejected the scheme because Nexus could not prove its affordability and value for money. Social barriers were evident where the QCS proposed by Nexus would not extend to Durham and Northumberland which are areas covered by NECA. Meanwhile, political barriers were also evident during the QCS proposal when the NECA area was unable to decide on the election of a new mayor which was a barrier to developing a bus strategy for the Tyne and Wear area. This political complexity was summed up by one interview who said that in Tyne and Wear “it’s very political and everyone wants to be the leader”.

Collaboration and interaction between those involved in the policy process were also key barriers for the QCS. This was particularly noticeable when Nexus said the relationship between themselves and the bus operators was “damaged” during the QCS process. Furthermore, they stated that the bus companies were unwilling to share data and this in turn prevented the scheme from being implemented. Another implementation challenge associated with the QCS was policy remodelling, where Nexus made several changes during the design stage which were held against them.

Finally, it was evident that opposition, conflict and ambiguities had a negative impact on the QCS proposal. The Tyne and Wear PTUG particularly opposed the opinions of the bus operators and were very much in support of Nexus and their plans for a QCS. There was also some opposition from the public and the interviews suggested that this was because some people were not fully aware of the intentions of the scheme. Conflicts and ambiguities also played a key role in the rejection of the QCS. The interviews revealed that bus operators used a lot of time and resources” to “fighting” their case and ultimately they were successful. This in turn “damaged” the relationship between NEXUS and the bus operators.

In contrast to the eight variable of the framework which highlighted the barriers, two variables were less problematic. The interviews revealed that policy champions were in place to help develop the case for a QCS by Nexus. The Union set up by the 3 main bus operators (Go North East, Stagecoach and Arriva) also included key policy champions to help prepare a proposal for a VPA. Another variable which was a lesser barrier for the QCS included *bureaucratic power* or hierarchical control.

7.3 Case Study 2 – Fastlink Scheme, Glasgow City

The second case study examines the Fastlink bus rapid transit (BRT) Scheme in Glasgow City, Scotland. The following sub-sections include a case narrative, which will then help inform issues arising from the case, followed by theoretical analysis and concluding remarks on this case study.

7.3.1 Case narrative

The following sub-section presents a narrative of the second case study on the Glasgow Fastlink Scheme. A total of eight interviews were carried out with 11 representatives who were involved in the scheme. These include representatives from Strathclyde partnership for Transport (SPT), Transport Scotland, Scottish Association for Public Transport (SAPT), Confederation of Passenger Transport (CPT), Strathclyde Bus Quality Partnership Board, Stagecoach, First Group, and the National Health Service (NHS). A list of interviewees and their role can be seen in table 7.5.

Table 7.5: Fastlink Scheme interview participants

Interview	Organisation	Number of participants	Role of participant in organisation
1	Strathclyde partnership for Transport (SPT)	1	Bus Development Manager
2	Transport Scotland	1	Regional Transport Partnership Policy Advisor
3	Scottish Association for Public Transport (SAPT)	2	President and Chairman
4	Confederation of Passenger Transport (CPT)	1	Managing Director
5	Strathclyde Bus Quality Partnership Board	1	Chairman
6	Bus Company - Stagecoach	2	Managing Director and Commercial Director
7	Bus Company - First Group	1	Network Planning Manager
8	National Health Service (NHS)	1	Senior Researcher
9	Glasgow City Council	1	Assistant Group Manager

7.3.1.1 Statutory Quality Partnership (SQP)

SQP schemes were introduced by the Scottish Government under Section 3 of the Transport (Scotland) Act 2001 as amended by the Transport (Scotland) Act 2005, as the preferred mechanism to improve quality of bus service provision. The development of a SQP scheme is also a specific objective contained within the document “Moving into the

Future: An Action Plan for Buses in Scotland (Bus Action Plan)” which promotes and shares best practice with a view to raising the standard of quality in the bus industry. A SQP is a statutory agreement and a partnership arrangement whereby a transport authority provides “specified facilities” and sets quality standards to be observed by bus operators for using those facilities. These specified facilities can include extensive bus priority measures along the routes, improved bus stop and access measures, improved bus shelters and enhanced bus route monitoring (Scottish Government, 2009).

According to the “Statutory Quality Partnership Best Practice Guidance” document produced by the Scottish Government (2009), the 2001 Act empowers a transport authority, or two or more authorities acting jointly, to make a SQP scheme covering the whole or any part of their area, or combined area. For an authority to establish a SQP scheme, it must be able to demonstrate that it will:

- *To any extent implement their relevant general policies in the area that the area to which the proposed scheme relates; and:*

either:

- *improve the quality of local services and facilities provided in the area to which the proposed scheme relates in such a way as to bring material benefits to persons using those services and facilities or;*
- *reduce or limit traffic congestion, noise or air pollution.*

Before a SQP can be implemented, the transport authority must address seven key stages for establishing a SQP, as highlighted in figure 7.2. The first stage includes a review which identifies the aims and objectives of bus policy in the area, a review of the existing partnerships in the area, the aims and objectives of a SQP and how the transport authority help achieve a SQP. The next stage involves pre-consultation where the transport authority agrees to develop a SQP and an informal consultation is carried out. This is followed by the next stage which includes the delivery of SQP and a draft is prepared on the governance and resolution of the scheme. Formal consultation can then take place with the bus operators, transport authorities, bordering transport authorities, chief office of police, Scottish traffic commissioner and other transport bodies. The public are

also provided notice of the proposed scheme. The final stages involve publishing and implementing the scheme, followed by monitoring and reporting on the outcome of the scheme.

Bus operators wishing to participate in the SQP must give a written undertaking to the Traffic Commissioner that they will provide the specified standard of service when using the facilities. This will become part of the conditions of registration and the Traffic Commissioner has the power to act against any operator who fails to meet the conditions. The following sections discuss the Fastlink SQP, which is the fifth such agreement to be implemented in the Strathclyde area and was jointly made by SPT and Glasgow City Council (GCC).

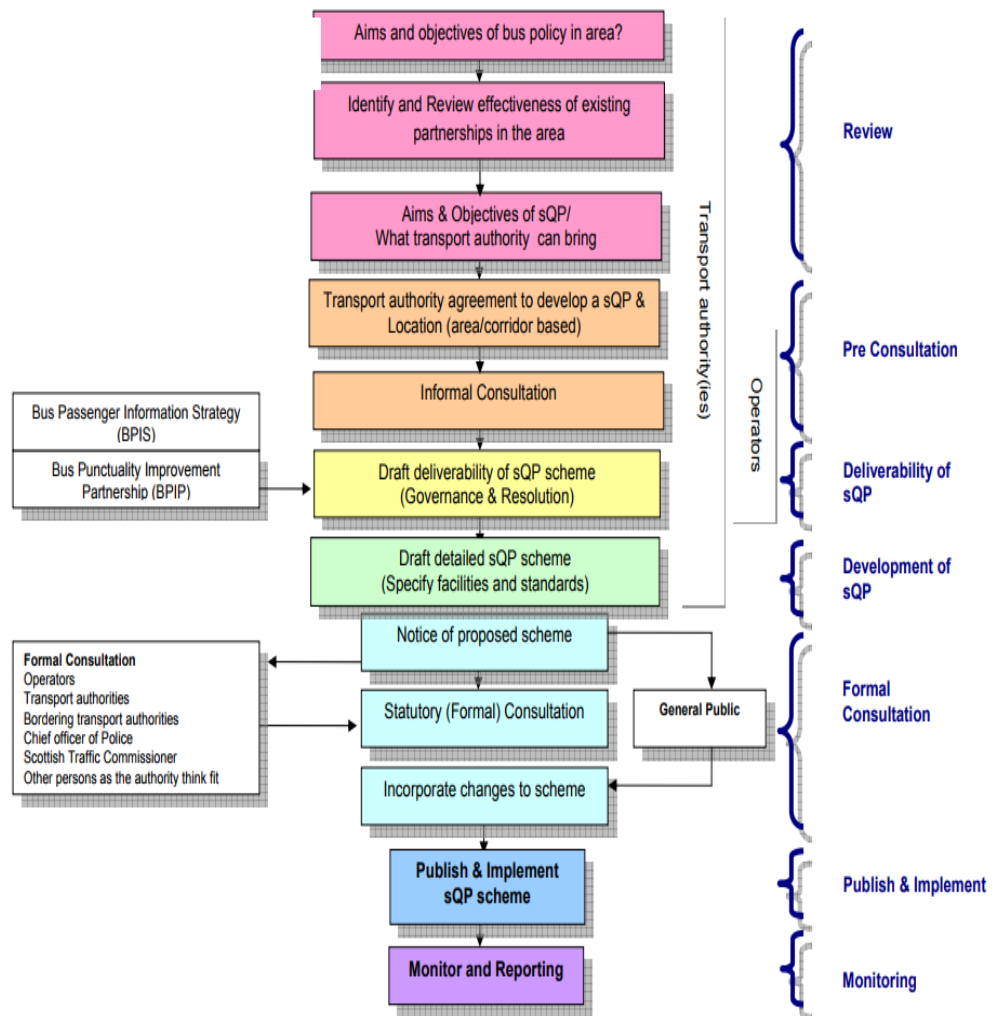


Figure 7.2: Stages in establishing a SQP (Scottish Government, 2009)

7.3.1.2 Fastlink proposal

The origins of the Fastlink proposal date back to the mid-1990s when SPT published a set of plans for the reintroduction of trams in Glasgow. This was known as the Strathclyde Tram Project and included a 20-kilometre route using disused railway lines and tunnels as well as running in part on some roads in the city alongside other traffic. The proposal also included plans for future expansion of the tram network to stretch across the Greater Glasgow area. However, there were many objections to the proposed tram and the parliamentary Commissioners ruled against the scheme.

Next GCC and SPT developed a working partnership and the Clyde Translink project was developed. A study was carried out known as the Clyde Corridor Transport Study (CCTS) which identified the need for enhanced public transport along the Clyde Corridor and therefore a bus rapid transit (BRT) metro system was recommended. BRTs have been implemented around the world for decades as a solution for moving large numbers of people at a relatively fast speed in densely populated urban areas (Hensher and Golob, 2008). According to Wright and Hook (2007), a BRT can be defined as:

“A high-quality bus based transit system that delivers fast, comfortable, and cost-effective urban mobility through the provision of segregated right-of-way infrastructure, rapid and frequent operations, and excellence in marketing and customer service. BRT essentially emulates the performance and amenity characteristics of a modern rail-based transit system but at a fraction of the cost.” (Wright and Hook, 2007)

The ‘Clyde Fastlink’ was designed and it was proposed that this new BRT system would include “high quality, quick and frequent services operating with trained drivers, quality shelters and priority over other traffic along its route including segregated roadway, bus lanes and traffic signal priority” (Glasgow City Council, 2010).

In 2006, an Outline Business Case (OBC) was completed and planning permission was approved for the Northern Corridor - Phase 1 route from the city centre to the west of Glasgow Harbour at an estimated cost of £32m. An initial section of the route was constructed, however a lack of funding meant the route could not be continued.

In 2007, the Scottish Government was approached for funding to extend the project into a Regional Scheme incorporating Clydebank in the north and Renfrew and Glasgow Airport in the south. There were also several key stakeholders including Renfrewshire Council, West Dunbartonshire Council and NHS Greater Glasgow and Clyde. In 2008, further feasibility studies were carried to consider inclusion of an eastern extension to include the Commonwealth Games Athletes Village and Clyde Gateway.

However, in 2009, the Scottish Government carried out a review known as the Scottish Government's Strategic Transport Projects Review (STPR) and found the Clyde Fastlink to be 'not of national significance' and rejected it from its list of priority schemes. The review indicated that there was a lack of regional impact, failure to tackle congestion around Glasgow Central station and there was a lack of clear impact on reducing emissions. Subsequently, following representations by SPT and GCC, Clyde Fastlink was accepted by the Government to be a priority element of the STPR.

In 2010, another OBC was submitted to the Scottish Government and sets out the Fastlink scheme in 3 phases (figure 7.3) with budgeted construction costs (including optimism bias, inflation and fixed contract allowance):

Table 7.6: OBC budget construction costs

Phasing Option	Cost	Benefit to Cost Ratio
Regional Scheme: Glasgow City Centre to Clydebank and Renfrew Ferry	£183m	3.04
Inner Regional Scheme: Glasgow City Centre to Braehead and Riverside Museum	£60m	3.82
Core Scheme: Glasgow City Centre to Sothorn General Hospital and SECC	£37m	1.82

Low economic growth for the corridor was assumed to reflect the current economic downturn at the time of the feasibility study. The Benefit to Cost Ratios (BCR) identified the Regional and Inner Regional Schemes as 3.04 and 3.82 respectively, which indicated strong economic justification in both cases. Meanwhile, the BCR for the Core Scheme was 1.82 indicated lower, but still acceptable, economic justification. The Core Scheme

had a lower ratio as a result of its costs disproportionate to its length due to the minimum quantity of vehicles required to deliver the intended high levels of service. Following this analysis, the Inner Regional Scheme was identified as the best performing option to meet the scheme objectives. The Fastlink scheme included six objectives in line with both national, regional and local policy considerations. These objectives were also used for evaluating and monitoring success of the scheme. These included:

- *“To reduce travel time (target 20%) and the cost of travel to existing and new developments along the Clyde corridor;*
- *To improve accessibility, and thereby help to reduce social exclusion, to key areas, facilities and services along the Clyde corridor such as healthcare, education, employment and tourist attractions;*
- *To support growth, development and regeneration along the Clyde corridor in the residential, commercial and retail sectors;*
- *To ensure high quality integration of new and existing public transport along the Clyde corridor;*
- *To improve safety, particularly for vulnerable public transport users, along the Clyde corridor; and*
- *To reduce the adverse environmental effects of transport along the Clyde corridor through modal shift, sustainable trip patterns and reducing the growth rate of congestion on main corridors.” (BRT UK, 2015).*

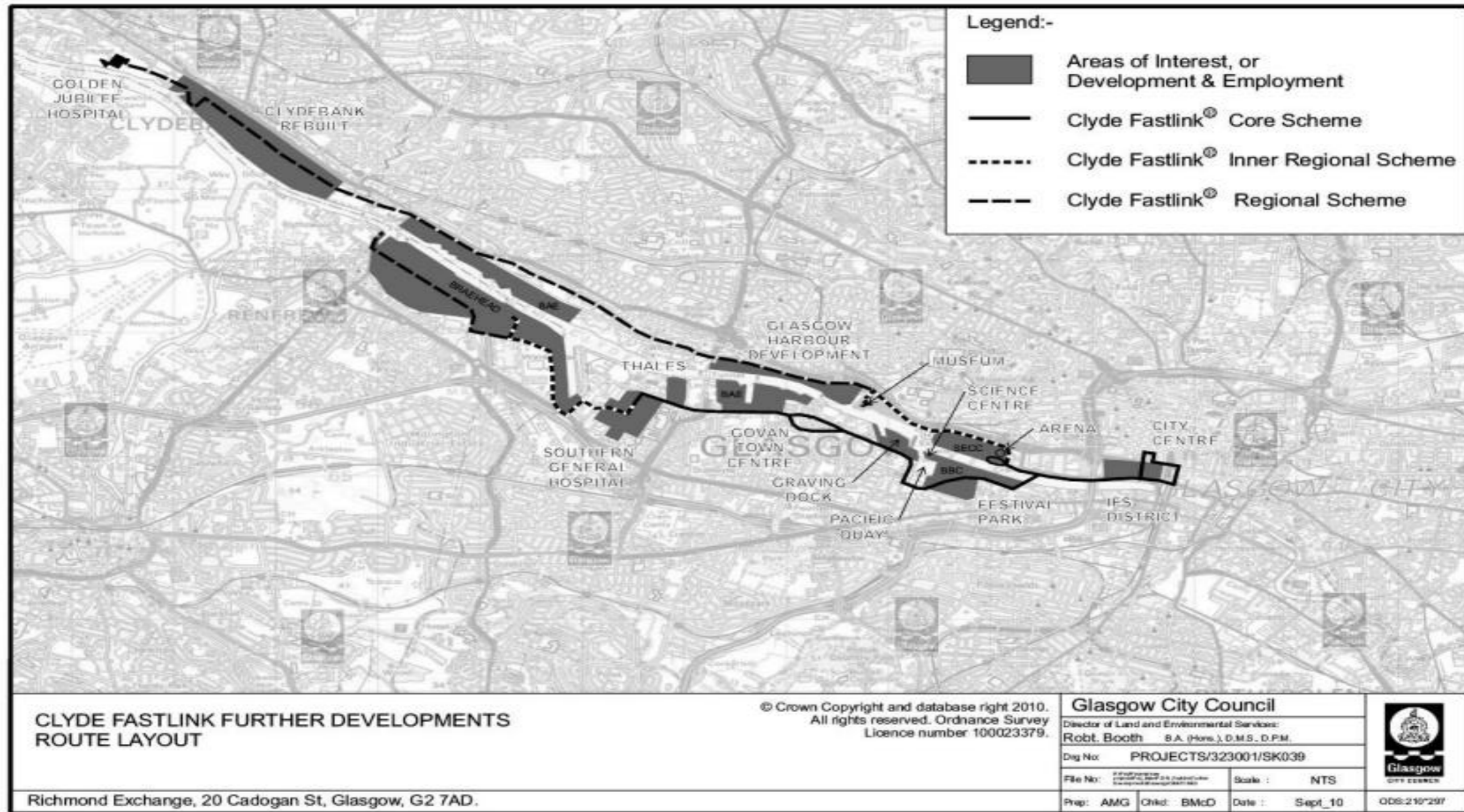


Figure 7.3: Clyde Fastlink route layout (GCC, 2010)

In 2011, the final business case was submitted and SPT advised the Scottish Government that the Inner Regional Scheme was the preferred option and requested funding to deliver the Fastlink Scheme. SPT also requested for £24 m to the European Regional Development Fund to help support the scheme. Two major contributing elements of the Fastlink Scheme included public transport provision for the 2014 Commonwealth Games and the new Queen Elizabeth University Hospital (QEUH) to be opened in 2015. While SPT were successful in obtaining the funding required for the Fastlink Scheme, there were however delays as the money was delivered in phases much later than planned.

7.3.1.3 Fastlink preparation

The key route connections of the Fastlink were proposed for within Glasgow's city centre. The route connects with Central Station, Queen Street Station and Buchanan Bus Station, and then runs along the Clydeside via the International Financial Services District, the ClydeArc Bridge, Digital Media Quarter and Govan to the QEUH (figure 7.4). To encourage modal shift to public transport, the route was designed to incorporate a number of key bus priority features, including:

- Segregated Busways
- Bus Lanes
- Bus Priority Traffic Signalling
- Automatic Number Plate Recognition (ANPR) bus lane enforcement
- Junction bypasses for buses.

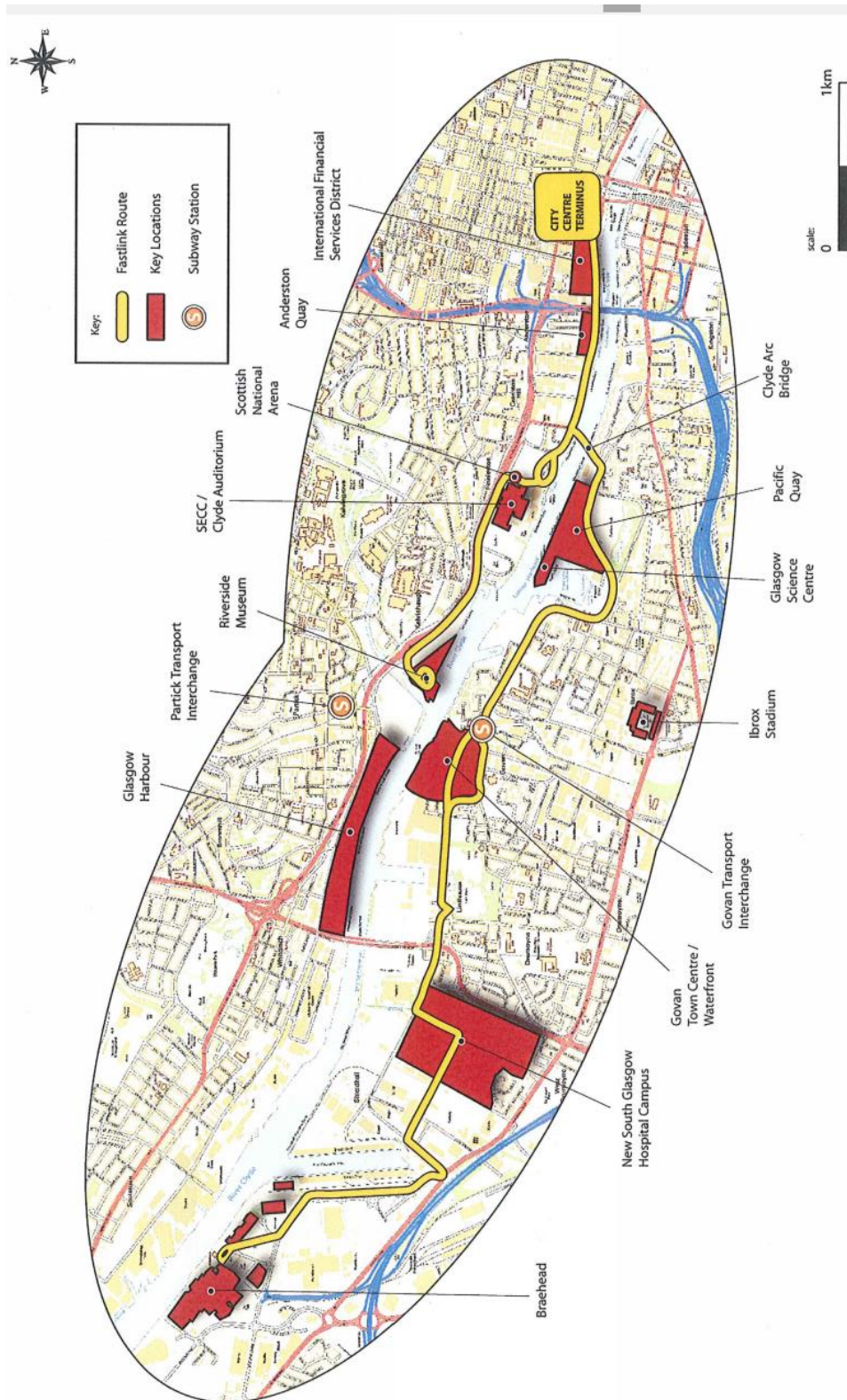


Figure 7.4: Fastlink route connections (SPT, 2015)

An example of a bus priority measure can be seen in the following figure (7.5) which shows an aerial plan of a roundabout in Govan which has been signalised and modified to include a west bound contraflow bus only link.

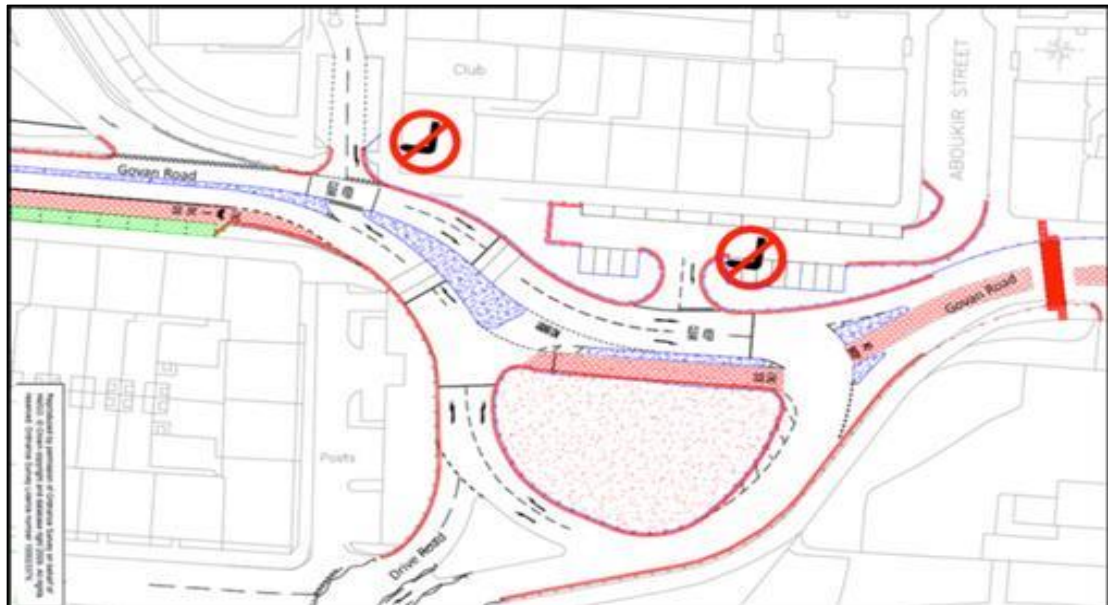


Figure 7.5: Aerial plan of a roundabout in Govan (Wright and Hook, 2007)

The scheme also includes passenger facilities such as high quality interchange, safety lighting, CCTV, signage and travel information and distinctive “Fastlink” branding. There are also new Fastlink halts which include help points, high access kerbs and RTPi. The following image shows a Fastlink halt during being constructed on Union Street in 2017.



Figure 7.6: Fastlink halt during construction (Source: Author's image)

However, a desktop review revealed that there were no plans for walking or cycling infrastructure included within the scheme design. This resulted in public opposition and opposition from cycling activists such as a campaigning group from the Strathclyde area known as 'Gobike' who objected to the Fastlink proposals because of the exclusion of cycles and the potential danger posed to people on bikes by the new traffic layout. To resolve this issue, GCC prepared a package of measures to improve the connections for walking and cycling in relation to the Fastlink project and presented it to SPT.

7.3.1.4 Fastlink outcome

SPT led the steering group involved in delivering the scheme. The steering group were responsible for overseeing various duties were satisfied to meet grant conditions with agreement between the organisations involved. These organisations included GCC, Renfrewshire Council, Transport Scotland, NHS Greater Glasgow & Clyde and CPT. Meanwhile GCC and SPT would meet regularly via the Fastlink Working Group to monitor progress on a 'day by day' basis and report to the Steering Group and respective corporate governance requirements within SPT and GCC.

The final business case also stated that there was a need to kick-start funding for the initial operations. Therefore, SPT invited local bus operators to participate in a mini competition which offered capital support for environmentally-friendly buses as part of a wider drive to establish sustainable, high-quality commercial bus services on the Fastlink corridor and associated routes to the QEUH. Both McGill's Bus Service and Stagecoach Western Buses responded to the mini-competition SPT Partnership Board approved the following awards for Fastlink Network Enhancement;

- *“The award of Network Enhancement Grant (NEG) to Stagecoach Western Buses at a cost of approximately £1,150,000 for a 4 year period commencing 31 August 2015, or a date thereafter to be agreed with SPT.*
- *The award of Network Enhancement Grant to McGill's Bus Service at a cost of approximately £1,300,000 for a 4 year period commencing 31 August 2015, or a date thereafter to be agreed with SPT.” (SPT, 2015)*

Contracts were then exchanged between SPT and Stagecoach. This included funding for 7 brand new Euro 6 vehicles and for Stagecoach to commit to a four year period commencing 31 August 2015. These new vehicles would be operated on their frequent (every 10 minutes during M - F) X19 Fastlink Service, and extend the route to QEUH, Govan, City Centre, Glasgow Royal Infirmary and Easterhouse. This in turn would secure the requirements to have a high quality, frequent (every 10 minutes), attractive and environmentally friendly service delivered on the full Fastlink route, backed by a four year agreement with the operator. However, McGill's did not take up their offer of funding and indicated that they were unlikely to do so following a review of their services operating on the Fastlink corridor to the QEUH.

It was proposed that the Fastlink scheme would be completed by the time the new hospital - which has 10,000 staff and 750,000 visitors and patients per annum - opened in April 2015. The new bus priority infrastructure and passenger facilities at the hospitals Arrivals Square transport hub are fundamental in providing suitable access to the jobs and services located at the site by fast, frequent and high quality local bus services. However, the scheme encountered several delays. This included delays in the city centre where there were traffic changes to give buses priority and delays due to the upgrade of the Govan

bus-Subway interchange. Further delays were experienced during the implementation of the scheme where interviews revealed safety concerns over the Fastlink design, which were not apparent through a desktop review. For example, Transport Scotland pointed out that there was a section of the Anderson Quay that collapsed into the river Clyde, while CPT pointed out the bus drivers who were concerned for the safety of people because there had been incidences of people walking along or off the side of the segregated busway along the river Clyde. Meanwhile, other delays occurred on the Fastlink route where there were problems with traffic lights and buses weren't given priority, resulting in added extra time to bus journeys. Both McGill and Stagecoach drivers stopped using the Fastlink bus lanes because they were too slow.

While the hospital opened in April 2015, a further 1km of construction works were to be completed. According to the NHS, the construction works meant that it was “extremely difficult” for people to travel to the hospital because public transport provided by the Fastlink was not in place as planned. Furthermore, the parking restriction of 1 km around the site of the hospital resulted in congestion problems near the site as staff, patients and visitors of the hospital were parking nearby in residential areas. This in turn created opposition from local residents. For example, local residents living in Linthouse, which is located beside the hospital, feared that having new bus lanes and parking restrictions enforced would damage local businesses in the area. According to SPT, the design of a scheme like the Fastlink will “always be a challenge” because road space is required and parking spaces are taken away. This in turn creates opposition, particularly where people are not bus users in some cases.

To help overcome these issues associated with opposition, several changes were made to the scheme based on the feedback from the public. Extensive Stakeholder consultation was completed on the scheme from public exhibitions, presentations to affected housing associations, statutory consultation within the TRO process and councillor briefings. While it is known that the scheme involved amendments, details of the exact amendments are unknown and were unobtainable from both the interviews and a desktop review.

A month later, the Fastlink was opened and a number of local bus services registered with the Traffic Commissioner for Scotland to operate on the Fastlink in accordance with the Fastlink SQP. Some of these bus services operate fully on the Fastlink, while some operate on parts of the Fastlink route serving nearby local communities. Table 7.7 shows that the largest number of services on the Fastlink operates between the QEUEH and Glasgow City Centre, while a further significant number of services operate between the QEUEH and other destinations. The majority of these services operate via the new Arrivals Square transport hub at the QEUEH which incorporates bus priority infrastructure and passenger facilities which are part of the Fastlink SQP.

Table 7.7: Bus services in operation between QEUEH and Glasgow City Centre (SPT, 2015)

Operator	Service	Route	Days of Operation	Hours of Operation	Peak buses per/hr
Stagecoach Western	X19	Easterhouse-Glasgow BBS-QEUEH (via Fastlink)	Mon-Fri	0518-0001	6
			Sat	0608-0001	
			Sun	0603-0006	
McGill's	F1	Glasgow BBS-QEUEH (via Fastlink)	Mon-Fri	0600-2353	6
			Sat	0600-2353	
			Sun	0600-2353	
McGill's	23	Glasgow Renfield St – Erskine (via Govan, QEUEH, Renfrew)	Mon-Fri	0600-2353	4
			Sat	0600-2353	
			Sun	0600-2353	
McGill's	26	Glasgow Renfield St -Paisley Nethercraigs (via Govan, QEUEH, Renfrew)	Mon-Fri	0600-2353	4
			Sat	0600-2353	
			Sun	0600-2353	
Total					20

Interestingly, an interview with the NHS revealed that there are “no particular peak times and very often there are buses that are empty”. They indicated that there are outpatient appointments every 15 minutes throughout the day and for the number of appointments over a year, “the number of buses available are tiny”. A desktop review of the

current Fastlink timetable which indicates a high frequency of services, contradicts the opinion of the NHS representative where they suggest there are not enough services to suit out-patient appointments.

SPT (2015) highlighted there was an uplift in services, including Fastlink routes, to the QEUH from approximately 14 to 86 buses per hour, during the main day Monday to Friday, to a wide spread of destinations. Furthermore, a survey undertaken by NHS Greater Glasgow & Clyde found that over 65% of respondents felt that there had been an improvement in bus services since the new hospitals opened. They also felt it was easy to access the hospital by bus, including by Fastlink Services.

The Transport (Scotland) Act 2001 indicates that a SQP scheme must set out the specified facilities provided by the transport authority and the specified standards of local services to be delivered by operators (Transport Scotland, 2017). These facilities and standards are required to secure improvements in bus services. SPT therefore developed a regime to assess the on-going effectiveness of the Specified Facilities and Bus Operator Standards to help deliver and sustain the required benefits and to identify areas for potential improvement. This regime tracks the operation of the Scheme against key outputs and associated targets. The key outputs to be monitored include:

- Punctuality and reliability of bus services;
- Bus patronage;
- Bus service quality and passenger satisfaction;
- Route traffic performance.

However, an interim monitoring report was published in 2015 on the Fastlink Scheme, and it appears that the key targets associated with the Fastlink Scheme are heavily focused on reducing travel time (target 20%) and the cost of travel to existing and new developments along the Clyde Corridor. This includes an initial reduction target of 15% and a final goal of 20% on completion of the scheme including City Centre. An update on the performance of the Fastlink Scheme provided by SPT in 2015 in terms of journey time performance compared to both the reference case (i.e. without Fastlink) and the project targets. According to SPT, this data was estimated using a combination of traffic modelling, snapshot surveys, limited operator data and timetable schedules. They also

indicate that these findings are aligned with positive feedback they had received from operators and the public following the upgrades and modifications to traffic signalling along the route. A monitoring plan is illustrated in table 7.8 which was developed by the partners involved in the scheme including SPT, GCC and the local bus operators.

Table 7.8: Fastlink Scheme monitoring plan (SPT, 2015)

Element	Responsibility	Period of reporting	Outputs
Bus patronage	Bus operator	6 months	Bi-annual bus operators scheme review report
Service quality	Bus operator	6 months	Bi-annual bus operators scheme review report/ Revised schedule 6
Hot spots and defects	Bus operator	Within 21 days/14 days	Due process
Punctuality and reliability	Council/SPT/Bus operators	6 months	Technical note/ Service reliability trend
Journey times	Bus operator	Upon request	Technical note
Route traffic performance	Council	6 months	Route traffic performance report
Facilities update	Council	6 months	Revised schedule 2
Passenger satisfaction	SPT	Annually	Passenger satisfaction reports
Inspections	SPT	6 months	Inspection reports
Overall scheme review	Council and SPT	Annually	Annual scheme review report
Scheme updates	Council and SPT	Annually (if required)	Revised SQP

A final outcome of the Fastlink Scheme includes a £3.14 million package of works which was agreed between GCC and SPT, to deliver bus priority measures and improved passenger facilities within Glasgow City Centre. These works are currently underway and include the delivery of further journey time savings for all bus services operating in the City Centre (e.g. up to 180 buses per hour in Union Street) in alignment with the targets set out in the final business case.

7.3.2 Issues arising from the case

The following sub-sections discuss the issues that arose from the case study in terms of design, existing bus policy document, policy targets, monitoring of bus policies and barriers to implementing the scheme.

7.3.2.1 Issues with scheme design

A key issue that was not raised during the interviews but was discovered during a desktop review was that there were no plans for walking or cycling infrastructure included when the scheme was designed. This resulted in public opposition, especially from cycling activists, because of the exclusion of cycles and the potential danger posed to people on bikes by the new traffic layout.

Further issues with the scheme design occurred which caused delays to implement the scheme. These delays occurred because of a section of the Anderson Quay that collapsed into the river Clyde, the upgrade of the Govan bus-Subway interchange and further road works and traffic management requirements. This in turn meant the scheme was not delivered on time for the opening of the new hospital. Similar delays occurred when the Fastlink was expected to be in operation for the Commonwealth games held in Glasgow in 2014.

While the new hospital was opened, more design issues appeared where 1km of construction works were still to be completed. Parking restrictions of 1km around the site of the hospital resulted in congestion problems near the site and opposition from local residents. According to SPT, there has been no mechanism implemented to this day to help alleviate the congestion caused by the parking restrictions since the Fastlink route was completed. From a public health perspective, the NHS revealed that the council have policies on limiting the car parking and they “don’t want to be responsible for paying for private car parking” and instead want to encourage people to walk and cycle to work.

Another example of design issues with the scheme occurred where there were problems with traffic lights and buses weren’t given priority, resulting in added extra time to bus journeys. Therefore, both McGill and Stagecoach drivers stopped using the Fastlink bus lanes for a period because they were too slow. Given the barriers associated with the

scheme design, the Chair of Strathclyde Bus Partnership believes if SPT had a bigger budget, then “the scheme would have been designed better”.

7.3.2.2 Existing bus policy document, policy targets and monitoring of bus polices

At a regional level, the current bus policy document in place is ‘A Catalyst for Change’, the statutory Regional Transport Strategy (RTS) for the west of Scotland 2008-21 and was approved by Scottish Ministers in 2008. This document includes a range of solutions across Strathclyde to enhance and develop the transport network, infrastructure and services, and to promote sustainable development and travel choices. At a local level, the latest bus policy document for the Glasgow City area was published by GCC in November 2013 called ‘Getting Ahead of Change’, the Glasgow City Centre Strategy and Action Plan 2014- 2019. This strategy is aimed at tackling the city centre’s economic, planning, environmental and traffic issues. Both the RTS and LTS outline the commitments to supporting the delivery of Fastlink and to delivering traffic management measures to facilitate the movement of all buses, including the Fastlink services, through the city centre.

According to SPT, there is a section on buses in the LTS which flows from the RTS and sets out “...broader principals supporting accessibility, improving the network and reliability of the network.” SPT also points out that the Fastlink scheme fits within the RTS and there is a direct reference to the scheme in the strategy. In terms of the importance of having this document in place, SPT believe:

“It is absolutely crucial to have these documents in place. They set out your direction of travel in terms of you of how you allocate your funds and take these things forward. We’ve just started the process of looking into refreshing our strategy. This is to help get more people onto the bus.” [Interview 1]

Similarly, GCC pointed out that it is “important” to have bus policy documents in place. However, there were some discrepancies in opinions about the importance of having a bus policy document in place. According to the Chair of Strathclyde Bus Partnership, these documents are necessary, but not sufficient, stating:

“They give you some kind of framework to make political agreement and to make priorities. That’s the story of transport in the UK for 60 or 70 years.

Glasgow's LTS says lots of worthy things and it doesn't look very different from other LTS's. The Fastlink is just a bus, it's not much more than an exciting new bus and just does what it has to do." [Interview 5]

The Chair of Strathclyde Bus Partnership pointed out that the targets set by SPT are "... mostly about passenger satisfaction and usage but there is a big long comprehensive list of targets for monitoring which is part of the quality partnership." They also believe targets have an impact on how bus policies are implemented in Glasgow/SPT area, stating:

"...we continue to fail to meet targets and this make things worse. This reinforces the decline in patronage and you can argue this isn't smart travel. The data is based on raw passenger numbers, which is one measure that doesn't necessarily tell you how the buses are responding to changes in the economy. We have a danger that we continue to reinforce how bad things are." [Interview 5]

This clearly indicates that there are some concerns with the targets set in the Glasgow/SPT area. However, SPT pointed out that they maintain an adequate network using the RTS as a guideline in terms of targets and that they are "...trying to get modal shift and improve accessibility" so the cases they put forward to "...help build a better case at a local level, such as the Fastlink." In response to targets which are met in the area, they believe it is the bus operators who hold responsibility to meet these targets, stating:

"The board principles impact on how we deal with policy. 97% of the registered mileage is commercially operated and it's up to the operator to decide the frequency, fares and times. The final 3% we end up throwing in supported networks such as weekends, evenings." [Interview 1]

Most interviews carried out for this case study indicated it is important for monitoring to be in place to aid the implementation of bus policy measures. SPT believe monitoring is "very important" and "absolutely essential" in terms of what was done and what could be done. They also indicate the importance of board meeting to monitor the performance, stating:

“We work closely at a ground level with bus operators in the area. At an individual level we pick up what’s working well and not working well and where we can make improvements. For the quality partnership scheme, they have boards and governing bodies. We will meet next February and we will comment on various aspects of the quality partnership scheme, and look at how it is performing.” [Interview 1]

Similarly, they pointed out the importance of monitoring, stating:

“Monitoring of the success of any scheme is important in order to provide support for future expansion and implementation.” [Interview 9]

While the Chair of Strathclyde Bus Partnership points out the importance of monitoring, they suggested there are many concerns over the monitoring that is in place for the Fastlink Scheme, such as commercial confidentiality issues and access to data from the bus operator.

“Monitoring is always important and we’re not very good at it. I think if we had better monitoring in place it would have a successful impact on buses because the infrastructure isn’t that very expensive, in comparison to rail”.

“I think monitoring is a good thing and we don’t tend to do enough of it or do it particularly well. That said, monitoring in the bus sector is much more difficult because of commercial confidentiality issues and getting data from the operators can sometimes be hard, and that doesn’t help the industry’s case.” [Interview 5]

SPT believe more bus policy measures such as the Fastlink Scheme would be implemented as planned and without problems, if stricter monitoring was in place. They suggested it is “important” to demonstrate success and monitoring is therefore “...absolutely essential for further investment”. They also indicated that they are monitoring the Fastlink scheme in a “sustainable way”. However, the Chair of Strathclyde Bus Partnership disagreed with the opinion of SPT and did not believe bus policy measures would be implemented as planned and without problems, if stricter monitoring was in place. They suggest it would depend on what the stricter monitoring regimes indicate. For example;

“If the Fastlink was generating new journeys and benefits then there would be a strong case, but they’re not. So I don’t think it matters how well they are monitoring. They should stick to the general investment case and measure it, which is quite weak at the minute. But that’s because of the level of car ownership and money put into new roads.” [Interview 5]

In terms of what constitutes good practice in monitoring a scheme like the Fastlink, the Chair of Strathclyde Bus Partnership suggests monitoring should be more focused on “...how many people are on that actual route, how many buses they travel on, how much they pay and what are the satisfaction levels are.” However, they also indicate the difficulties for SPT to collect this data due to the expenses involved, stating:

“SPT does make an attempt to measure this but it’s expensive because it largely qualitative data and takes a lot of passenger survey data to do it. I would like to see monitoring on what the investment does to the economy and does it produce the jobs that it says it would do. It’s very hard and very expensive to do but that’s best practice.” [Interview 5]

7.3.2.3 Policy implementation and barriers to implementation

It would appear that the greatest barrier to implement the Fastlink Scheme came from public opposition. An interview with First Group revealed that this opposition was a result of the public not seeing the benefits of the scheme. In Linhouse, where part of the route was being constructed, residents were unhappy with the idea of having new bus lanes and parking restrictions enforced. Furthermore, it was feared that the new route would damage local businesses in the area. Transport Scotland pointed out public opposition was evident where there were concerns over the number of services running. However, they now believe public perception has improved because people “like the new buses because they are clean and tidy”. According to SPT, public opposition is “inevitable” due to the size of the scheme, however they felt it was important to take the views of the public on board. To help over these issues associated with opposition, a number of changes were made to the scheme based on the feedback from the public. Extensive

Stakeholder consultation was completed on the scheme from public exhibitions, presentations to affected housing associations, statutory consultation within the TRO process and councillor briefings. As a result, a number of amendments were made to the scheme.

While SPT were successful in obtaining the funding required for the Fastlink Scheme, there were however delays as the money was delivered in phases much later than planned. According to the Chair of Strathclyde Bus Partnership, it made the delivery longer than it should be and “a lack of money was a barrier in that sense”. However, they suggested it was implemented quite well in comparison to other schemes in the UK. In response to this, Transport Scotland said they do not pay out money in advance and they only paid out what SPT anticipated they would spend. SPT therefore felt “fortunate to secure the funding from Scottish Government and European funding” because it took several years to get to that point.

A lack of local government interest and support for the Fastlink also appeared to be another key barrier for the implementation of the scheme. SAPT believe politicians tend to be interested in schemes that give “publicity” such as road schemes for lorries and cars, but not buses. They also believe politicians like to fund schemes where they “can cut a ribbon afterwards and they don’t get opportunities like that for extending bus lanes”. Therefore, they don’t want to spend money on schemes like the Fastlink. As a result of this, SAPT doesn’t believe the Fastlink was the best option of schemes to be implemented. Instead, they would have preferred to see bus corridors or buses that co-ordinated with the rail. They also feel there should be more emphasis on parking charges because they argued that currently the car parks owned by the councils charge low prices for short stay parking. They suggested the Fastlink Scheme was implemented due to a “panic over the new hospital” being built. The Chair of Strathclyde Bus Partnership also shared a similar view and believed “...funding for the fastlink was very political” and it was “...one of those projects that was in the right place at the right time”. They also felt it was “...another cheap and nasty transport system designed to solve the problem of a major public investment in the wrong place”.

With a lack of support from politicians, SAPT believed that the councils in the area had given up supporting buses and as a result it was SPT who had to deal with the

Fastlink Scheme. Another reason for this lack of support could be due to local authorities experiencing spending cuts and reduced staff numbers in recent years. According to SAPT, it is much easier to get funding for tram and rail schemes in comparison to bus, partly due to their being a lack of support for the bus operators. The Chair of Strathclyde Bus Partnership also believes it is much easier to get funding for rail because it "...runs quite well and attracts people away from the bus". However, this contradicts earlier findings in the case study where it was found that SPT published a set of plans in the mid-1990s for the reintroduction of trams in Glasgow but the parliamentary Commissioners ruled against the scheme and in turn the scheme was downgraded to the BRT Fastlink.

Nevertheless, SAPT believed SPT were short staffed and "stressed" while preparing the scheme. SAPT suggested that "SPT are [run by] appointed members and coming up to elections they tend to listen to the people so they can get voted back in." Instead, they suggested Glasgow City needs a stronger transport governance system in place like in Manchester. Other barriers highlighted by SAPT included a lack of internal expertise and the current legal framework in place. They also felt the bus operators don't have enough staff to look at radical plans to put in integrated transport systems and SPT don't have the full powers for regulation either.

An interview with SPT revealed that the greatest barrier to making the scheme a success was "having the support of the bus operators and the public". Therefore, they felt it was important to make sure the offer was right and demonstrated that the "vehicles would run reliably and all the things the passengers expect (good shelters, CCTV, safely, security, good information provided, both written and electronically at stops) was absolutely key".

According to CPT, another barrier for the scheme was that "people didn't fully understand the business case" and were unsure as to why they signed up to the scheme. Some of the operators had to buy new vehicles to operate the service due to the Euro standard that was required and to meet the new interior design criteria. Therefore, at different stages during the preparation of the scheme, there was "potential for someone to pull out because they didn't understand the business case". Meanwhile, CPT felt there

was a “love hate” relationship between public and operators until people understood overall what the scheme would achieve.

An interview with SPT also highlighted other barriers associated with the scheme. These included an “image problem” and this is related to the “reliability and quality of services, cleanliness, smart ticketing etc.” of buses. In general, they believe local implementation is “challenging” talking between all parties involved “continues to be a challenge”.

7.3.3 Theoretical analysis of Glasgow Fastlink Scheme

In line with the theoretical analysis carried out on the questionnaires and telephone interviews, this section will also analysis the results obtained in the interviews carried out with representatives from the Glasgow City area on the Fastlink Scheme. The 10 variables of the decision support framework are used to analyse the results of the interviews and this in turn will help determine the barriers and enablers which have an impact on bus policy implementation. Furthermore, it will address the third research objective to help meet the aim of this thesis.

- 1. Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.*

The Fastlink scheme included six key objectives in line with both national, regional and local policy considerations. Under the SQP scheme, a regime was developed to track the operation of the Scheme against key outputs and associated targets. However, a desktop review of such monitoring reveals the ‘Fastlink Route Performance Report’ published on 28th October 2015 was the last time such monitoring took place and no further monitoring reports have been published since then. An interview with CPT revealed that a lack of monitoring is not only evident for the Fastlink Scheme, but also for other transport policies within Scotland. In particular, they felt that there is a lack of monitoring for the current LTS, stating “someone needs to check what is done against the key objectives in the strategy”. They suggested the reason for this lack of monitoring comes back to the “availability of resources” and the money isn’t there to carry out such monitoring. Similarly, an

interview with CPT revealed that while the National Government set objectives, there is no strict regime in place to deliver these objectives and "...they don't have to deliver them". They suggested there needs to be a radical overhaul on how to deal with transport in Scotland and acknowledged that The Scottish Government, Transport Scotland, RTP, and local authorities are doing their bit but "...somebody somewhere needs to pull these together". With regards the Fastlink Scheme, they felt the biggest problem is getting the buses through traffic congestion but there is a lack of realistic targets in place to help improve this situation. SPT also indicated other policies can get in the way of the success of the scheme. For example, a lack of parking restrictions at the QEUH delayed buses to and from the hospital and in moving through junctions nearby. As a result, both McGill and Stagecoach drivers stopped using the Fastlink bus lanes for a period during 2015 when the hospital first opened. These barriers indicate that there was an unclear link between designing the policy, setting targets and implementing suitable measures to achieve those targets, and monitoring those targets for implementation of the Fastlink Scheme.

2. Availability of resources: Resources such as financial support is important; however, where resources are limited, it is necessary to maximise the use of available resources.

The Fastlink Scheme was successful in securing funding from the Scottish Government which included £40 million to deliver the core route between Glasgow City Centre and the QEUH. A further £3.14 million package of works was also agreed between GCC and SPT, to deliver bus priority measures and improved passenger facilities within Glasgow City Centre. An interview with Transport Scotland pointed out that they provided funding based on what SPT anticipated they would spend. However, an interview with SPT revealed that there were in fact delays in obtaining this funding which then resulted in delays with the delivery of the scheme. An interview with the Chair of Strathclyde Bus Partnership suggested this delay in receiving the funding was a key barrier to implementing the scheme on schedule. However, they also pointed out the scheme was implemented quite well in comparison to other schemes in the UK where some bus schemes remain unfinished due to a lack of funding. Similarly, an interview with CPT suggested that without the various bodies involved in the steering group, the scheme may not have been implemented. They believe there is an appetite to implement such schemes in the UK,

however a lack of resources is preventing the schemes from being implemented. They also indicated that without the Government stepping in to provide the funding for the Fastlink Scheme and the various resources in place to push the project forward, it would be impossible to implement the scheme.

3. Intra-organisation support and communication: Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.

While it would appear SPT were successful in delivering the Fastlink Scheme, the interviews revealed that there were barriers associated with intra-organisation support and communication. For example, an interview with SAPT revealed that SPT “don’t have the internal expertise compared to bus operators and the legal framework isn’t helping”. They felt the current framework in place isn’t working and the bus operators don’t have enough staff to look at radical plans to put in integrated transport systems. SPT also don’t have full powers for regulation which is also a key barrier for their organisation, especially when dealing with the complexity of the policy issues involved. Similarly, while SPT were the scheme promoter, they were dependant on GCC for implementing anything on the roadway since GCC are the roads authority. This highlights the importance of relevant training, supervision and support within their organisation. However, Stagecoach felt they were “quite fortunate to be dealing with SPT” because they didn’t experience any problems while working with them and felt that the staff at SPT were “very experienced transport professionals”. An interview with GCC also revealed that external consultants were employed to help SPT with several tasks to deliver the scheme, which highlights the importance of providing support when dealing with complex issues.

4. Characteristics of organisations: Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).

An interview with SAPT revealed that local authorities experienced big spending cuts and reduced staff and therefore had given up supporting buses in the area. They indicated that it was SPT who were then responsible for buses and the Fastlink scheme, however

the extra workload created stress for the staff. They also gave another example of where SPT received £288 million in funding for the upgrade of the Glasgow underground metro system, however “they only have one person” in charge of the project. An interview with SPT supports the opinions of SAPT because they highlighted that characteristics of their organisation was a barrier due to the “...size of the scheme the level of engagement with the public transport authority and the operators”. This would suggest that while SPT were successful in delivering the Fastlink Scheme, there were some key barriers which their organisation experienced in terms of the workload and limited numbers or capacity of staff to deliver the scheme. Meanwhile, GCC did not mention any problems associated with workload and limited staff which were raised by SAPT.

5. Economic, social and political environments: Current and future economic, social and political environments play an important role on the outcome of the policy process.

Economic, social and political environments play an important role in the Fastlink Scheme. From a political perspective, it was quite clear that the support was there and this is evident through the steering group led by SPT involved, which included support from GCC, Renfrewshire Council, Transport Scotland, NHS Greater Glasgow & Clyde and CPT. However, the interviews revealed that there were some concerns associated with the social environments surrounding the Fastlink Scheme. In particular, several interviewees mentioned an image problem associated with using the bus. An interview CPT revealed that buses don't get the same acknowledgement or support as rail and “...the balance is wrong somewhere”. Similarly, an interview with the Chair of Strathclyde Bus Partnership indicated that the biggest problem in Glasgow and the west of Scotland is the competition between buses and rail. They feel that rail “...runs quite well and attracts people away from the bus”. Therefore, they believe the Fastlink Scheme was a “bad idea” and isn't of “...high quality in comparison to those kinds of schemes you see all over Europe”. They also felt the Fastlink “looks and feels terrible to use”.

On a related note, SAPT highlighted a socio-demographic issue: in comparison to Edinburgh, where people with a wide range of incomes use the bus, wealthier residents of the east side of Glasgow tend to use the train over bus services. They also suggest

“people with lower incomes don’t complain and don’t know how to push it, whereas the people with higher incomes can make this push which is generally for rail”. Additionally, they believe that while recent studies show travel demand is expected to increase in the coming years, rail is in a better position for modal shift than bus. SAPT also pointed out other barriers associated with the social environments surrounding the Fastlink. For example, they suggest the while most people can understand discussions about buses, there are a lot of “jargon words” used. They also feel that there is less press coverage on buses and the “bus operators and user groups are partly to blame for this”, indicating there are no informative Bus User Group in the Glasgow area. This suggests that these barriers could be avoided if there were active bus operators and user organisations to help encourage and promote good practice, and to represent the views and interests of operators who run the Fastlink service and passengers who use the service.

6. Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.

Policy champions played an important role in the Fastlink Scheme. It would appear it was SPT who were the influential drivers to implement the scheme, while the motivation and commitment from other champions were also very important. An interview with SPT indicated the importance of the relationship they had with the bus operators and felt they “couldn’t have made it work otherwise”. However, according to the Chair of Strathclyde Bus Partnership, the scheme would not exist without SPT’s involvement, stating “I doubt that local government would find it that big of a deal to go and spend £60 million on it”. They felt the local government would be in a position to improve bus corridors but would lack “technical and professional willingness to focus on that type of project”. According to Transport Scotland, they felt they had a good relationship with the steering group involved and they “sought commitments” that the Fastlink would be running by the time the new hospital would be running and there were deadlines to meet. However, an interview with CPT revealed that there were often “...heated debates but at the end of the day we shook hands and made it work”. It is therefore evident that policy champions who are committed and willing to work together on a project are crucial for implementation.

- 7. *Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.***

The interviews revealed that there were no issues associated with bureaucratic power with the organisations involved with the Fastlink Scheme.

- 8. *Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.***

An interview with SPT revealed the importance of collaboration for the Fastlink Scheme. They felt collaboration with locals who supported the development, political buy-in, partnerships working with the public transport agencies (the roads authority) and the operators was “absolutely crucial”. They believed it was important to work together regularly and to “build support for what you are trying to achieve”. Similarly, they felt it was important to engage with the public, bus users and operating staff who were for and against what they were trying to achieve and so they “took time to plan appropriately”. SPT further pointed out that they were “very thankful” to GCC for their support for the Fastlink while working closely with them. They highlighted key barriers such as the size of the scheme and the engagement with the public transport authority and the operators (in terms of making sure traffic lights were working appropriately and the services were in place) as “challenges” which may have prevented the scheme from being implemented. Therefore, they suggested that collaboration between all parties involved is vital because “local implementation continues to be a challenge”.

From a bus operator perspective, Stagecoach said they had a “good relationship” with the staff at SPT who were heavily involved in the project. They felt this in turn “prevented any misunderstandings or lack of action” and expressed personal relationships and the relationship between people who work for the operator and local authority is very important. Therefore, they felt this relationship was “part of what helped” the scheme to

succeed. Similarly, GCC felt a “...good partnership, hard work and determination to complete the works by all parties involved including the staff from SPT, GCC, external consultants, contractors and public utility companies” enabled the scheme to succeed.

9. Policy remodelling: Limited changes to the policy should occur from the design stage right through to the implementation stage.

Some changes were made during the implementation process of the Fastlink Scheme to alleviate issues that arose. According to SPT, public opposition was “inevitable” due to the size of the scheme and given the importance of the public to use the scheme, they felt it was “important to take their views on board”. Therefore, SPT made several changes to the scheme based on the feedback from the public to help improve the scheme. An interview with GCC also indicated public opposition was a “primary barrier” and a number of amendments were made to the scheme as a result based on public exhibitions, presentations to affected housing associations, statutory consultation within the Traffic Regulation Orders (TROs) process, and councillor briefings.

10. Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

It is quite evident from the interviews and a desktop review that public opposition was a key barrier for the Fastlink Scheme. Several newspaper articles online outlined this opposition and suggested that delays meant that the improved journey times anticipated with the new bus lanes was not being realised (Daily Record, 2015). An interview with the NHS revealed that it was “extremely difficult” for their staff to get to work because of these delays. Furthermore, bus operators temporarily stopped using the partially-segregated bus lanes in a dispute over hold-ups along the Fastlink route.

According to Transport Scotland, the biggest complaint from the public was concerns over the number of services running. They believed once the public were aware of these services, “public perception was good, people were happy and they like the new

buses because they are clean and tidy”. Similarly, an interview with CPT revealed that there was a “love hate relationship” between the public and the bus operators but this was a lesser barrier once the public understood what was being achieved. They mentioned this was particularly a barrier for the bus operations because “people on the buses complain to the bus companies, not the council”. However, they believe the bus operators overcame this barriers because of the huge increase in the number of buses to the hospital. In contrast to this, an interview with the Chair of Strathclyde Bus Partnership suggested public opposition occurred because some people thought it was a “...waste of money because it wasn’t a road they were building”. They believe the real issue was that SPT were “trying to make better bus priority of existing roads” and therefore this attracted opposition. From a bus operator perspective, Stagecoach mentioned that the public were concerned over the appropriateness of spending a large amount of money on a busway that is relatively lightly used. However, they felt these concerns were a less important factor in terms of Fastlink.

An interview with SAPT revealed that a key barrier included a “lack of local government interest” and they believed politicians only tend to be interested in schemes that give publicity, for example road schemes for lorries and cars, not buses. They believe politicians prefer to fund things “where they can go cut a ribbon afterwards”. They also suggested there is a lack of political interest because “they don’t get opportunities like that for extending bus lanes and they don’t like to spend money like that.” Furthermore, they believe it is easier for politicians to get funding for tram and rail schemes in comparison to bus. However, they pointed out that leading up to elections, the politicians “tend to listen to the people so they can get voted back in”. This highlights the overarching impact of political power on schemes like the Fastlink.

7.3.4 Summary of case study 2

The second case study has examined the Fastlink BRT Scheme in Glasgow City. To help understand the success of the scheme, the barriers and enablers were identified by carrying out a theoretical analysis using the decision support framework. Seven variables of the framework were useful in identifying the barriers to the scheme. Firstly, there were barriers associated with policy objectives. While the scheme included six key objectives in line with both national, regional and local policy considerations, there was little focus

on targets outside passenger satisfaction, speed and usage. Meanwhile, a monitoring report was published on 28th October 2015 but no further monitoring reports have been published since then. It is therefore evident that there is an unclear link between designing the policy, setting targets and implementing suitable measures to achieve those targets, and monitoring those targets for implementing the Fastlink Scheme.

Next it was found that the availability of resources was a barrier for the scheme. While SPT obtained funding for the scheme, there were in fact delays in obtaining this funding which then resulted in delays with the delivery of the scheme. Intra-organisation support and communication was also seen as a barrier where it was revealed that SPT “don’t have the internal expertise compared to bus operators and the legal framework isn’t helping”. Similarly, while SPT were the scheme promoter, they were dependant on GCC for implementing anything on the roadway since they are the roadway authority. Characteristics of organisations was also identified as a barrier when SAPT revealed that local authorities experienced big spending cuts and reduced staff and therefore were less able to implementing policies to support buses. They indicated that it was SPT who were then responsible for buses and the Fastlink scheme, however the extra workload created additional pressures for SPT staff.

The framework also revealed economic, social and political environments as a barrier to the implementation of the scheme. For example, the interviews revealed that incomes in Glasgow City are skewed towards the lower end of the scale. According to SAPT, “people with lower incomes don’t complain and don’t know how to push it, whereas the people with higher incomes can make this push which is generally for rail”. Those who live in the east side of Glasgow tend to use the train over bus services and this therefore suggests there is an image problem associated with using the bus and Fastlink.

Another barrier associated with the scheme included policy remodelling where several amendments were made to the scheme as a result based on public exhibitions, presentations to affected housing associations, statutory consultation within the TROs process, and councillor briefings. A final barrier for the implementation of the scheme included opposition, conflict and ambiguities. A desktop review revealed that there were no plans for walking or cycling infrastructure included within the scheme design. This resulted in

public opposition and opposition from cycling activists such as a campaigning group from the Strathclyde area. Further opposition was seen when the Fastlink was still being constructed when the hospital opened in May 2015. This created difficulties for staff, visitors and patients travelling to the hospital, and therefore opposition occurred from residents because people were parking in the residential areas. Meanwhile there was conflict and opposition from the bus drivers who were concerned for the safety of people because there had been incidences of people walking along or off the side of the bus paths along the river Clyde. Finally, there was evidence of opposition, conflict and ambiguities when an interview with SAPT revealed that a key barrier included a “lack of local government interest” and they believed politicians only tend to be interested in schemes that give publicity. They believe politicians prefer to fund things “where they can go cut a ribbon afterwards” and leading up to elections, politicians “tend to listen to the people so they can get voted back in”.

In contrast to the seven variables of the framework which highlighted the barriers, three variables identified the enablers which helped to implement the scheme. First, policy champions played an important role in the Fastlink Scheme. It would appear that SPT were the influential drivers to implement the scheme, while the motivation and commitment from other champions were equally important. Second, the interviews and a desktop review revealed that there were no issues associated with bureaucratic power with the organisations involved with the Fastlink Scheme. Finally, it was quite clear from the interviews that the success of the scheme was a result of collaboration and interaction between those involved in the policy process. An interview with GCC pointed out that the collaboration between all parties involved was vital because “local implementation continues to be a challenge”. They also felt that a good partnership, hard work and determination to complete the works by all parties involved including the staff from SPT, GCC, external consultants, contractors and public utility companies enabled the scheme to succeed.

Overall, the Fastlink Scheme appeared to be in a state of some flux from the design stage right through to delivery. From an early stage, SPT did not have from everyone the full support they needed to deliver the scheme. They lacked political support partly because not everyone fully understood the intentions of the scheme. SPT addressed this in

part by trying to make the scheme work as they went along. The design of the scheme was also problematic and this is particularly noticeable given part of the scheme has yet to be completed. These design problems resulted in delays and modifications such as those to accommodate walking and cycling while restrictions at the hospital created opposition and reduced the effectiveness of the scheme. Meanwhile the distribution of funding for the scheme was also problematic. Although the funding was there, it was delivered in stages which created further delays. If SPT had the support and funding in place, unnecessary problems which occurred during the implementation stage such as delays, could have been prevented. The state of flux could also suggest that there was a lack of guidance in place and there was insufficient planning to deal with many of the barriers that were faced as the scheme was being implemented. Many of the issues which occurred during the implementation of the Fastlink scheme could have been avoided if more planning and guidance were initially in place.

7.4 Case Study 3 – Lode Lane Route Enhancement Scheme, Solihull

The third case study examines the LLRE Scheme in Solihull, England. The following sub-sections include a case narrative, which will then help inform issues arising from the case, followed by theoretical analysis and concluding remarks on this case study.

7.4.1 Case narrative

The following sub-sections present a narrative of the third case study on the LLRE Scheme. A total of seven interviews were carried out with seven representatives who were involved in the scheme. These include representatives from Solihull Metropolitan Borough Council (MBC), Solihull Ratepayers, Transport for West Midlands (TfWM), National Express West Midlands and Jaguar Land Rover (JLR) Plant. A list of interviewees and their role can be seen in table 7.9 below.

Table 7.9: LLRE Scheme interview participants

Interview	Organisation	Number of participants	Role of participant in organisation
1	Solihull Metropolitan Borough Council	1	Solihull Connected Lead - Transport Strategy and Programmes
2		1	Solihull Council Lead Member - Capital Programme and LTP Chairman
3	Solihull Ratepayers	1	Secretary of the Solihull Ratepayers' Association
4	Transport for West Midlands	1	Network Development and Delivery Manager
5		1	Bus Scheme Development Manager
6	National Express West Midlands	1	Commercial Manager
7	Jaguar Land Rover Plant	1	Acting UK Transport & Planning Manager

7.4.1.1 Lode Lane Route Enhancement Scheme Proposal

On 29 January 2015, the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) announced the expansion of its Local Growth Fund with an extra £21.4m to be invested in the area between 2016 and 2021. While this Growth Fund was to be spent in later years, it also provided some opportunities to bring forward project expenditure if required.

Meanwhile, Centro, West Midlands Passenger Executive, National Express West Midlands and the local bus operator were working together to form new ideas to improve public transport along the radial corridors into the town centre. According to TfWM, they carried out a series of bus network reviews across the region in the seven districts in the past eight years. They examined the local bus network and interventions to improve services and change routes. Solihull was of interest because it has the most productive economy in the Midlands and includes important assets such as Birmingham Airport, the NEC, Jaguar Land Rover, Birmingham and Blythe Valley Business Parks and Solihull Town Centre. Solihull is also a central location on the national motorway and rail networks which provides access to key sectors such as automotive manufacturing, ICT, business

and professional services, creative industries and construction. Moreover, the Lode Lane corridor provides direct access to 12,500 jobs at Jaguar Land Rover and 19,000 jobs within Solihull Town Centre, including Solihull Hospital (Solihull Metropolitan Borough Council, 2015).

Solihull MBC were at the early stages of preparing the LLRE Scheme at the time of the Local Growth Fund announcement. Although they submitted a detailed business case with a bid to GBSLEP, it was expected that funding for the scheme could become available sooner due to underspend within the GBSLEP's Local Growth Fund programme for 2015/16. According to Solihull MBC (2015), the scheme "attracted a high level of interest from the GBSLEP's funding team" and therefore the Council was encouraged to submit the scheme for early delivery. Subsequently, the scheme was put forward and a funding award of £1,790,000 was confirmed in April 2015 for delivery in 2015/16. Centro and National Express West Midlands also recognised the schemes potential and the bid was further supported by a £450,000 contribution from Centro towards scheme delivery and £1,800,000 contribution from National Express towards the replacement all of their buses on the route with brand new Euro VI standard vehicles.

Since the scheme was brought forward, the detailed design, costing and procurement had to progress simultaneously instead of sequentially. This resulted in further design work and consultation which identified the potential for bus priority and cycle improvements between Rowood Drive and Solihull Bypass. As these improvements fell outside the original scope of the scheme, it was proposed that they would be delivered as part of a later scheme phase. Therefore, it was proposed that the scheme would be delivered in two phases.

The proposed LLRE Scheme consisted of corridor improvements along the B425 Lode Lane corridor, between Hobs Moat Road and Solihull Town Centre, but with a particular objective of enhancing connectivity between North Solihull and the UK Central Hub area to Solihull Town Centre. The corridor carries approximately 32,000 vehicles daily and forms the busiest bus corridor in the Borough. It has a total of nine bus services operating along the route, providing a total of 32 inbound bus services per hour in the peak period and 28 bus services per hour in the inter-peak period. The B425 Lode Lane

is the busiest bus corridor in Solihull, however it is heavily congested. According to the Solihull MBC (2015), the route includes over 1600 inbound bus passengers between 07:30 - 09:30, representing over 30% of total person trips into Solihull along the Lode Lane corridor in the AM peak. Meanwhile, the mode share for bus for trips into Solihull Town Centre has remained steady at approximately 17% in recent years, despite a continued downward trajectory in bus use across the UK, outside London. As a result of this congestion, the bus services experience significant delay, particularly inbound to Solihull Town Centre during the AM peak. A study by Solihull MBC (2015) shows that vehicles were experiencing more than 60 seconds delay per mile on the B425 Lode Lane corridor. These delays hinder the ability of the operators to run a service that is both competitive and reliable. Furthermore, it was expected that these delays would worsen in time due to further traffic growth.

According to TfWM, the operators also identified key congestion points and indicated that they would commit to improve services if the issues were addressed. They also highlighted that they had different reasons for implementing the scheme but shared the same objective. For example, the bus operators wanted to “save money” in the long term while TfWM wanted the scheme to be implemented “for the interest of the passenger”.

Solihull MBC (2015) also carried out an exercise called ‘Traffic Master’ to forecast bus journey time savings along Lode Lane between a point 200m north of the Lode Lane/Dovehouse Lane junction and Poplar Road, Solihull Town Centre. Figure 7.7 illustrates the predicted bus journey time savings along the route (in blue).

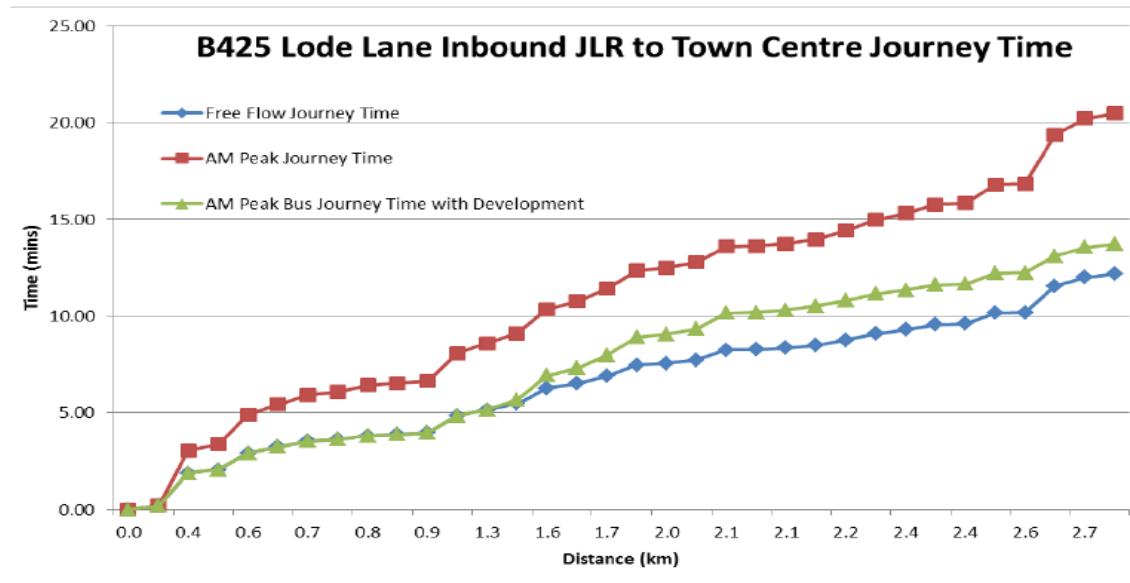


Figure 7.7: Lode Lane predicted journey saving times (Solihull MBC, 2015)

Meanwhile, several other issues were highlighted by Solihull MBC (2015) in their business case to GBSLEP. They indicated the B425 Lode Lane was the worst performing corridor in Solihull in terms of bus reliability (including punctuality) and journey time delay in the peak hours. This in turn caused journey time delay, affected expansion plans in the town centre and affected the attractiveness of public transport as a viable alternative to the car. There was poor accessibility in terms of bus journey times between North Solihull and East Birmingham Regeneration areas which in turn reduces access to jobs and services in Solihull Town Centre and other economic activity in the south of the Borough. The existing transport system was also unable to cope with increased traffic levels. They believed new transport infrastructure and services were urgently needed to assist with the delivery of the future Town Centre Local Plan and UK Central growth. An interview with Solihull MBC highlighted the importance of taking advantage of national investment in the area and to exploit the role Solihull plays regionally. Therefore, they felt it was important to accommodate future growth by making use of infrastructure in place, reallocating road space and recognising that there is a corridor there for public transport which is “far more efficient than just trying to achieve that through cars”. Furthermore, a new high-speed railway called the High Speed 2 (HS2) will be implemented in the coming years. This will include the development of the UK Central Hub Solihull (the Hub) and the creation of the first high speed rail interchange outside London. This

will bring new opportunities for economic growth in the area and therefore the LLRE Scheme is needed to assist with the delivery of the UK Central Hub area which proposes an additional 20,000 jobs and 250,000 square metres of residential uses around the HS2 Interchange area alone.

Further key benefits were also outlined by Solihull MBC (2015) for the proposed LLRE Scheme. For example, in the short to medium term, it was expected the scheme would enhance transport connectivity between HS2 Interchange and Solihull Town Centre. It would also improve public transport access into the town centre and Jaguar Land Rover, which would help unlock infrastructure barriers to realising Solihull Town Centre's economic growth potential. The scheme also proposed to create 45 construction jobs and an additional 1,982 jobs in the town centre and Jaguar Land Rover, in addition to 137 new homes. Meanwhile, it was predicted that further development of Solihull Town Centre would include a further 11.75 hectares of development with the potential to deliver 7,400 more jobs and 263 more homes. Improved mobility could increase access to employment, education and leisure/retail opportunities, whilst giving employers access to larger labour markets and more customers. There is also the opportunity to improve economic growth by attracting new business and increasing global competitiveness.

The LLRE scheme was also predicted to play an important role in accommodating travel demand and buses are one of the most efficient movers of people and one of the only modes of transport that can rapidly accommodate increases in travel demand. The LLRE scheme also includes quantifiable benefits such as a decrease in delays at junctions along route and improved bus journey times and bus patronage. Non-quantifiable benefits include journey quality and ambiance and increase of physical activity and access to services.

Meanwhile, in the long term, it was expected the scheme would provide the initial stages of a future rapid transit corridor between these two strategic nodes. The scheme also forms part of the UK Central Growth and Infrastructure Plans (shared strategy for investment and growth between public and private sector stakeholders within the area) which will make a major contribution to economic growth in the LEP area (The newly West Midlands Combined Authority (WMCA) comprises of 19 local authorities and three

Local Enterprise Partnerships (LEPs), which includes Greater Birmingham and Solihull LEP). This has the potential to triple the area's contribution to LEP Gross Domestic Product (GDP) by more than £14.2bn per annum by 2040.

7.4.1.2 Scheme Preparation

The LLRE Scheme would include new bus lanes along three sections of the road on the Solihull bound side only and use Lode Lane's relatively wide carriageway to accommodate an additional traffic lane. The proposed sections of new bus lane are between:

- Dovehouse Lane and Rowood Drive
- Moat Lane and Hermitage Road
- Keresley Close and Poplar Road

The following infrastructure improvement measures were also expected from the LLRE Scheme:

- *introduction of a new bus gate;*
- *new bus and cycle only lanes;*
- *signals with priority green for bus movements;*
- *optimisation of current timing at signalised junctions including provision of selective vehicle detection (SVD);*
- *enhanced cycle crossing facilities;*
- *removal of red route clearway and replaced with red route carriageway markings;*
- *improvement in crossing facilities to bus stops;*
- *maintenance works to enhance highway assets along the corridor;*
- *improved bus stop infrastructure including new shelters and RTPI; and*
- *quality and frequency improvements to service numbers 957 and 71 bus fleets.*

Figure 7.8 illustrates the LLRE Scheme area and figure 7.9 contains the original drawings prepared by Atkins titled "Solihull MBC B425 Route Enhancement".

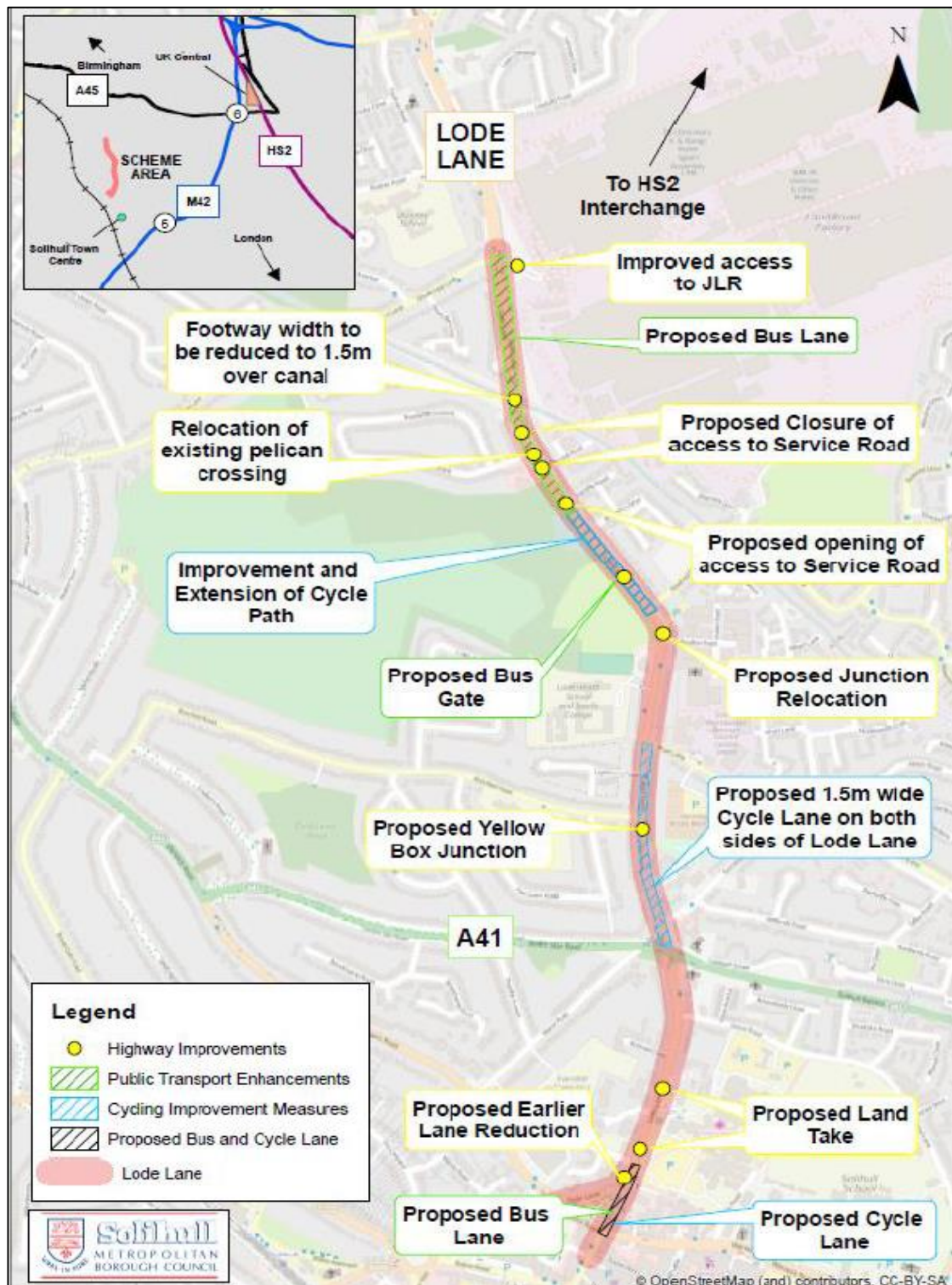


Figure 7.8: LLRE Scheme area (Solihull MBC, 2015)

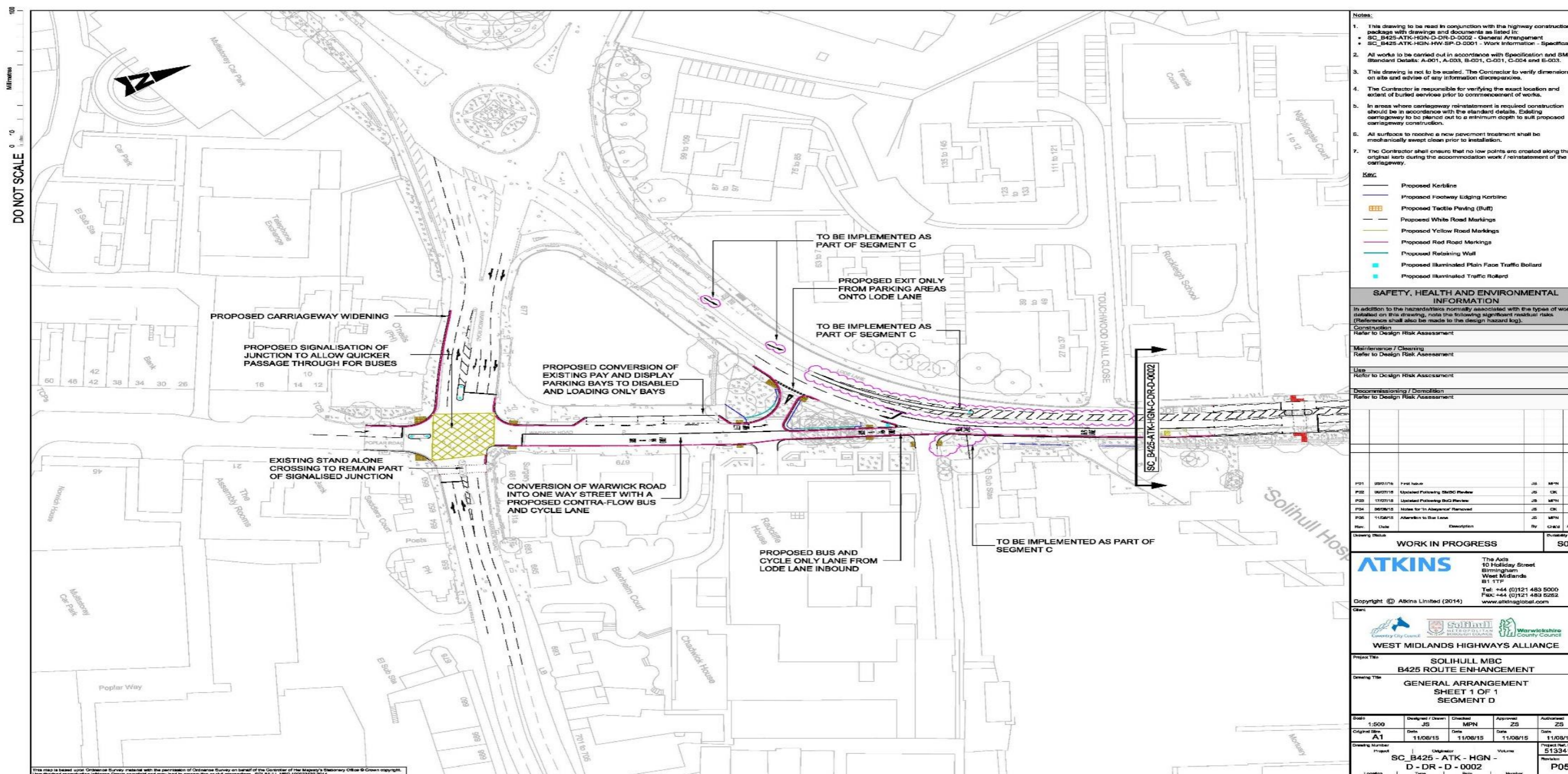


Figure 7.9: Solihull MBC B425 route enhancement (Solihull MBC, 2015)

In terms of the delivery team, Solihull MBC was the project sponsor but also undertook the project management, detailed design, contract preparation and supervision of the scheme. A policy champion from Solihull MBC, who was the project manager of the scheme and lead contact, was responsible for undertaking regular project control meetings, liaising with those involved with the delivery of the scheme, ensuring timescales and budgets were met and any issues were identified early. The champion also played an important role to try overcome obstacles such as local Councillors who were initially against the scheme and could not see its benefits. TfWM, formally known as Centro, supported Solihull MBC with data and provided bus infrastructure and bus shelters for the scheme. Atkins (a consultant) carried out the initial feasibility and preliminary design and worked with TfWM. Solihull MBC were proactive in engaging with JLR Plant and an interview with JLR indicated that they were "...happy to work with Solihull MBC and the National Express..." to encourage more bus usage. According to TfWM, it was a collaboration of partners that brought the scheme forward. At the delivery stage, Solihull MBC consulted with TfWM to help deal with customers and general queries along the way. They also helped with bus stop infrastructure and getting information out to bus operators about disruptions that would be caused with works.

In order to achieve the benefits of the LLRE Scheme, it was proposed that the scheme would meet the following key objectives:

- *To contribute to a high quality public transport system in Solihull Town Centre;*
- *To ensure a reliable and safe bus service;*
- *To support the future and further growth of Solihull Town Centre;*
- *To complement the emerging connectivity package at the Hub (including HS2) and Solihull Town Centre as part of the UKC Master Plan;*
- *To provide quality bus access and interchange into Solihull Town Centre;*
- *To improve connectivity from the East Birmingham North Solihull Regeneration Areas to Solihull town centre; and*
- *To improve air quality.*

These objectives have also been set to support local transport policy objectives. This includes related performance aims for 2015/16 set out in the West Midlands LTP3 2011-2026 by Centro (2011), including:

- *Increase bus patronage by 5% from 2010/11 baseline levels by 2015/16 (July 2013 annual results show 8% decline from base);*
- *Increase the proportion of trips by public transport into the 9 Strategic LTP centres during the AM Peak by 50% by 2015/16;*
- *80% of bus services operating between '1 minute early and 5 minutes late' by 2015/16; and*
- *Improve access to employment.*

The LLRE Scheme also addresses 4 key ambitions of the bus policy document called 'Transforming Bus Travel' by Centro (2009) and entails:

- *Promotion of space-efficient modes of transport, including local bus services;*
- *Smoothing traffic flows and improving journey time reliability for all users;*
- *Promotion of low carbon modes of transport, including local bus services; and*
- *Increasing public transport network capacity, including bus network capacity.*

It also aims to meet the bus visions as part of this document, including:

- *Reversing the recent decline in bus use, and then establishing healthy, sustainable increases in bus patronage are integral to the overall strategy if increased travel demand is going to be successfully accommodated; and*
- *Buses are particularly important for local journeys into main centres.*

A feasibility study was carried out by Solihull MBC which identified three principal scenarios to assess the benefits of providing bus priority along the radial corridors into Solihull Town Centre. The three scenarios include do-nothing, do-something and do-maximum. Table 7.10 illustrates the qualitative option testing was carried out on all scenarios.

Table 7.10: Qualitative advantages and disadvantages of the 3 scenarios (Solihull MBC, 2015)

Scenario	Advantages	Disadvantages
Do-nothing	<ul style="list-style-type: none"> • Does not cause any disruption associated with construction; • Maintains existing capacity levels for all traffic; • Maintains minimum crossing widths for pedestrians. 	<ul style="list-style-type: none"> • Corridor already exhibits high degree of congestion during the peaks; • Does not offer a pilot opportunity to trial public transport measures as part of the UKC/HS2; • Limited modal shift.
Do-something	<ul style="list-style-type: none"> • Offers a pilot opportunity to trial public transport measures as part of the UKC/HS2; • Provides significant journey time savings; • Minimal impact to other traffic; • Provides very high value for money; • Deliverable in one financial year; • Opportunity to provide holistic improvement along entire corridor; • Up to 7% modal shift onto bus. 	<ul style="list-style-type: none"> • Requires land acquisition at Solihull Hospital; • Significant loss of trees and visual screening they offer outside Solihull Hospital; • Significant diversion of utilities outside Solihull Hospital.
Do-Maximum	<ul style="list-style-type: none"> • Offers a pilot opportunity to trial public transport measures as part of the UKC/HS2; • Provides significant journey time savings; • Opportunity to provide holistic improvement along entire corridor; • Up to 9% modal shift onto bus; • Likely to provide high value for money. 	<ul style="list-style-type: none"> • Requires compulsory purchase order at JLR; • Significant costs associated with diversion of 600mm water main; • A six lane carriageway outside JLR could cause problems for pedestrians; • Removal of off-carriageway cycle lane; • Relatively high capital cost; • Requires land acquisition at Hospital; • Loss of trees and the visual screening they offer outside Hospital; • Significant diversion of utilities outside Hospital; • Could not be implemented within one financial year.

Based on the qualitative advantages and disadvantages of the 3 scenarios, the ‘do-something’ option was the preferred way forward for a LLRE scheme. This option delivers journey time savings of up to seven minutes for bus passengers whilst delivering minimal detriment to other modes such as private vehicles. It ensures that all modes benefit

from the infrastructure changes, given it contains a fewer number of ‘dis-benefits’ than a more extensive ‘do-maximum’ scheme. Furthermore, it ensures value for money in comparison to the other options. The following table (7.11) presents the cost estimate for the do-something option:

Table 7.11: Cost estimate for the do-something option (Solihull MBC, 2015)

Cost heading	Cost
Design	£125,000
Construction	£992,600
Site supervision	£99,260
30% Optimism bias (construction)	£297,780
Utilities	£1,100,000
Land Acquisition	£250,000
Bus Investment	£1,800,000
Total	£4,664,640

When the LLRE Scheme was being proposed, the off-peak journey time along the route was 12.2 minutes while the AM peak period increased to 20.5 minutes. It was predicted the implementation of the LLRE Scheme would reduce the AM peak journey times to 13.7 minutes and in turn provide a reduction of 6.8 minutes per bus per passenger. The forecasted reductions in journey times on patronage are outlined in table 7.12. This table also shows that the proposed scheme could increase patronage levels by 7% on average.

Table 7.12: Modelled effects on patronage resulting from journey time reductions (Solihull MBC, 2015)

Service Number	Existing journey time (minutes)	Do-something journey time (minutes)	Modelled patronage increase
58	56.7	49.9	9%
70	113.4	106.6	5%
71	106.05	99.25	6%
72	109.2	102.4	6%
73	65.1	58.3	8%
957	55.65	48.85	9%
966	91.35	88.35	3%
S1	15.75	12.75	9%
Average Forecast Increase in Patronage			7%

According to Solihull MBC (2015), the business case for the LLRE Scheme outlines the monitoring and evaluation process which is measured against the key objectives. It was proposed that Centro would liaise with the bus operators for data already available to avoid incurring additional costs. Meanwhile monitoring and data collection would be synchronised with wider Council data collection where possible and would be undertaken at regular intervals, associated with LTP and wider planning exercises. The scheme outcomes are measured against the following data:

- Existing bus journey times
- Junction performance including queues at junctions where highway modelling indicates measurable change
- Cycle number survey
- Bus journey time data
- Environmental data
- Existing patronage
- Existing satisfaction levels (all modes)

It is proposed that the evaluation for the LLRE Scheme would be assessed through the following three phases:

1. Data collection;
2. Evaluation of collected data for technical assessment; and
3. Benefit realisation.

7.4.1.3 Scheme Outcome

Several obstacles were experienced when the LLRE scheme was being implemented. For example, a dedicated right turn lane was required where there were concerns for the safety at a crossing where there were several lanes of traffic. There were also slight adjustments to the TRO at Ratcliffe House because residents objected to the bus lane affecting access to the frontage of their property. Furthermore, cycle lanes were removed which were originally planned to be included in the scheme. This in turn created opposition and particularly negative perceptions around reallocation of road space, priority at junctions and impact on traffic. To overcome these barriers associated with opposition, Solihull MBC carried out consultations with local residents and ward members to assess the best options to deal with issues raised in petitions.

The purchase of land from the nearby hospital was also required to complete the LLRE Scheme. Meanwhile, amendments were made during the scheme design where there was a proposal put to JLR for the transfer of some land adjacent to the highway for the scheme. However, they were unable to agree terms on the cost of the purchase and the transfer was rejected.

Further obstacles were experienced when several structural defects were discovered during waterproofing of the canal bridge on Lode Lane as seen in figure 7.10. The bridge therefore required eight weeks of repairs which involved strengthening of the bridge from above as well as repair of a bridge beam from below. Solihull MBC were also required to replace trees which were removed along Lode Lane as part of this scheme.



Figure 7.10: Canal Bridge on Lode Lane (Solihull Observer, 2016)

In June 2016, the first phase of the LLRE scheme was completed which included two stretches of bus lane located between the canal bridge and the junction with Rowood Drive and between the junction with Grove Road and Poplar Road. The second phase was completed in November 2016 which consists of a new bus lane on Lode Lane, between Moat Lane and Hermitage Road. According to TfWM, a major scheme similar to the LLRE would take approximately 2.5-4 years to implement, from inception right through to delivery. However, as the LLRE scheme exploited specific funding opportunities the scheme was delivered under two years. A total of £4.5m was invested, including £1.1m from Solihull Council and TfWM, £1.7m from Central Government through the Greater Birmingham and Solihull LEP Growth deal and £1.8m contributed by the National Express.

As the LLRE scheme was implemented at the end of 2016, monitoring of the scheme is still being carried out. According to TfWM, there has been "... an increase in speed by around 6 minutes..." although they are "...trying to compare it as a percentage because it's easier to quantify the improvements then". TfWM also indicated that there is "...around 60% reduction in journey time but it's still being monitored". Therefore, this scheme can be judged a success because it is on target to meet its key objectives identified

in section 7.4.1.2, and to reduce congestion, improve connectivity, reliability and bus speed on the B425 Lode Lane corridor.

7.4.2 Issues arising from the case

The following sub-sections discuss the issues that arose from the case study in terms of design, existing bus policy document, policy targets, monitoring of bus polices and barriers to implementing the scheme.

7.4.2.1 Issues with scheme design

A time limit to design the LLRE scheme was a key barrier for implementing the scheme. According to Solihull MBC there was a time limit that they had to work towards and the availability of local growth funding also had a time limit which meant they had to “pack a lot into the timescale”. However, this time limit can also be seen as an opportunity because Solihull MBC felt they worked well with the timescale and the scheme attracted funding which was matched funded with the LTP, local growth funding and contributions from TfWM. However, they pointed out that they would have preferred more time to design the scheme because there were a number of factors which affected the timescale of the scheme which meant design amendments occurred during the implementation stage of the scheme. An interview with Solihull MBC revealed that several modifications were required to address local concerns. For example, a dedicated right turn lane was required where there were concerns for the safety at a crossing where there were several lanes of traffic.

Another key barrier discovered during a desktop review and the interviews was the need to purchase land for the scheme. For example, an interview with JLR revealed that amendments were made to the scheme design where the transfer of land was rejected, stating:

“There was a proposal put to JLR for the transfer of some land adjacent to the highway for the scheme. However, whilst the business was amendable, it was not possible to agree terms on the cost of the purchase. The scheme was then amended.” [Interview 7]

A similar problem occurred when Solihull MBC mentioned that they needed to purchase land from Solihull Hospital, "...which went ok in the end". They also mentioned that a local resident rejected the purchase of their garden frontage, stating:

"We also had problems with one particular local resident where we had to buy some front gardens. The resident wasn't going to play ball but we got over that in the end. We only found this out while we were doing the scheme."

[Interview 1]

Meanwhile, an interview with Solihull Ratepayers Association indicated that they had "...mixed feelings about the scheme because the road doesn't lend itself easily to put in bus lanes". Therefore, they believed that the design team were required to "...fudge the road space". They also felt congestion is still a barrier in the area, contrary to the findings by TfWM and Solihull MBC who indicated that the LLRE scheme alleviated congestion within the area.

"The peak period tends to be coming in than going out. There is much more congestion coming in to Solihull than going out. There are cars parked in the residential areas for the last few years." [Interview 3]

7.4.2.2 Existing bus policy document, policy targets and monitoring of bus polices

Both the interviews and a desktop review revealed that Solihull does not have a specific bus strategy. The latest transport document includes the 'Solihull Connected Transport Strategy 2016' and according to Solihull MBC this document includes "greater emphasis around the role of sustainable transport and public transport" for the area. The 'Solihull Connected Transport Strategy Delivery Plan 2016-2036' also discusses the proposed LLRE Scheme. A desktop review revealed that Solihull also does not have a LTP, however the area is covered in the 'West Midlands Local Transport Plan 2011-2026' and bus policy for Solihull is captured within this document. However, TfWM pointed out that the LTP is "...quite light on buses unfortunately". At a regional level, the guiding strategy for the TfWM area is the Strategic Economic Plan (SEP), while the West Midlands Strategic Transport Plan, 'Movement for Growth' supports this SEP. However, TfWM pointed out that "there is nothing defined around the strategy" in relation to bus policy within these documents.

According to TfWM, the transport strategy in place accommodates the anticipated increase levels of trip demand. They believe it is "...very difficult to build in more road capacity and it's probably not the right policy direction to build in new capacity for cars". Therefore, they indicated that the philosophy taken for the LLRE Scheme was very much about maximising and optimising the use of existing road space. Thereby, they concentrated on the B425 Lode Lane corridor as having potential for intervention. This is due to the corridor having links to key growth areas and moreover the opportunity to improve the highways where there were "...dead carriageway and space that wasn't doing very much, especially with high levels of peak congestion".

Although Solihull does not have a specific bus strategy, an interview with Solihull MBC suggested that it is very important to have some form of bus policy documents in place because it helpful for "...setting out the case for investing in the area". They also suggested that there needs to be strong political leadership in place because there is often a "...lack of understanding around the policy..." and not everyone understands what the council is trying to achieve. Furthermore, they suggested having a political champion for local bus policy and early engagement with stakeholders all lead to success.

TfWM also pointed out that there are other helpful mechanisms in place for implementing bus policy. This includes a strong partnership with the bus operators through the bus alliance, which is an organisation which includes the bus operators and other key stakeholders such as district councils, police etc. They also indicated that TfWM have a group who "...effectively sets policy for buses..." but is not included in the LTP. However, a desktop review and the interviews revealed no further information on this group who set targets for buses. Interestingly, TfWM mentioned in the interview that they don't feel a bus policy documents are as important as having an economic strategy in place, stating:

"I don't think a bus policy document is important at all. I think it's really important to have an economic strategy because that's the drive for schemes and I think too many transport planners focus on output around different modes. It's about saving journey time and it's all the means instead of the ends." [Interview 4]

TfWM therefore believe it is most important in a regional context for the West Midlands area to have a SEP which sets out the growth agenda for the region which then “...filters down from a transport perspective what you need to deliver”. They believe this is “...far more important than having a bus strategy”.

In terms of targets, the LLRE scheme did not set targets which it was required to meet. However, the modelled predictions outlined in table 6.12 could be construed as targets given the scheme was approved based on these predictions. According to Solihull MBC, they instead measure the outcomes of the scheme in terms of “increasing social and economic activity and the number of jobs in the town centre”. They also indicated that they work with TfWM to “identify priority in interventions” to put an attractive public transport in place but they feel they are currently “not in a position” where they need to set targets. Meanwhile, TfWM pointed out that the bus alliance sets targets for the West Midlands region and the LLRE Scheme helps to meet these targets. However, these targets were set before the implementation of the scheme.

The interviews revealed mixed opinions about the importance of setting targets for the LLRE Scheme. The Solihull Ratepayers Associations believe targets are important and that “...it’s not good enough them saying they don’t set targets”. In contrast to this, TfWM “...don’t think targets are the right way to go”. Instead they believe there should be less focus on delivering the means, stating:

“We are just focused on delivering the means, but it’s all about the ends. I’d happily take a decline in targets and still have significant increases on patronage on some really important corridors where local residents have a really good bus services and have really good access to economic activity.” [Interview 5]

Monitoring appears to be an important component of the LLRE Scheme. An interview with Solihull MBC revealed that they are required to show that they are achieving

outcomes¹⁰ and that they need to focus on monitoring and evaluation. They also mentioned that they will “...probably go through identifying a monitoring framework and report one year after its implementation”. Currently, the LLRE Scheme is largely monitored through traffic flows and the National Express also carry out monitoring and provide TfWM with their data. According to TfWM, they have a “...good monitoring system in place” and can do comparisons with the data provided by the bus operators. This is a result of having “...a good relationship with the bus operators, particularly the National Express”. Meanwhile Solihull MBC pointed out that their transport team monitor bus patronage and they receive feedback from local members to pick up any problems such as where motorists are held up in traffic. There are also passenger champions who twice a year they do a survey on satisfaction which is then monitored.

“We also have passenger champions who monitor and check on reliability, bus shelters and attitude of drivers. They do make themselves known to the drivers and they chat to the passengers to see how clean the buses are and if they are driven properly”. [Interview 2]

However, Solihull MBC believe in general “monitoring and evaluation can have less focus” as soon as they move onto other projects. Instead, they believe monitoring and evaluation should be more focussed because “if you don’t monitor, you don’t know what’s working and so by monitoring it gives us a good indication of what we need to do with other schemes to make them a success”. Similarly, TfWM pointed out that there is a need for continuous monitoring in place, stating:

“If we had this continuing monitoring in place, we would have been able to evaluate where things aren’t working and really target investment where we do know bus priority is working. We need to look at the bigger picture especially where things aren’t working and there is no opportunity to mitigate the problem or make it work better. It’s absolutely important for the success of new schemes like Lode Lane.” [Interview 4]

¹⁰ Outcomes are the end results that are achieved by meeting the objectives, whereas, targets are an indicator established to determine how successfully you are achieving the objectives.

TfWM therefore believe if stricter monitoring was in place, more schemes like the LLRE scheme would be implemented, stating:

“Because we monitor the route, we were able to use it as an example for other places. There’s a lot of bus priority on the network that’s been in there a long time and it’s just not working. We will now start carrying out a review and collect evidence so I can say to colleagues and districts this isn’t working and I have a scheme where I can make it work a bit better and Lone Lane will be helpful in that regard.” [Interview 5]

They also believe the scheme would be politically easier to implement which may in turn give them more support from local businesses, stating:

“If stricter monitoring was in place, I think it might make some of the politics easier. We could do with more support from the businesses such as in Solihull town centre where they would benefit from it. I don’t think they are aware of this.” [Interview 5]

TfWM also pointed out the importance of stricter monitoring to help review bus policy measures in place, stating:

“Once you implement bus policy measures, it needs to be under constant review. Its poor bus policy measures that perpetuate perceptions of bus lanes you get from the general public. If some bus lanes are on a network not doing much and not helping traffic, then we should be taking decisions because they shouldn’t be there in the first place.” [Interview 4]

Other barriers were also identified in relation to bus policy. An interview with the National Express indicated that although a council can have a policy, decisions are still driven by local politicians. They believe that while there can be agreement about a bus policy, “the actual implementation of it is still down to one individual to decide whether it can happen” and find this “...frustrating”. TfWM shared a similar view and believe there is a “political issue” when it comes to long term plans and policies. They also indicated that it is difficult to find someone in the council to translate policy into practise, stating:

“Even if the funding is available, it can be hard to find someone in the council so focused on delivering it. It’s easy say it but when it comes around to delivering it, suddenly it’s more difficult for them and I think it’s a challenge for them to translate some of those policies into practical schemes on the ground.”
[Interview 5]

TfWM also pointed out that there is an issue with the regulatory framework in place. They find it challenging to deal with policy where they don’t have control over bus measures whereby the bus operators have the control, stating:

“Sometimes there might be a policy measure we want to implement. For example, we are about to have an election for a new mayor in the West Midlands and some of the mayor candidates are saying they want to reduce fares. But we can’t reduce fares in policy because the fares aren’t in our control. That would be up to the operators. If we want to improve emissions we can’t do that either because they are not our buses. Same with WIFI.” [Interview 5]

7.4.2.3 Policy Implementation and barriers to implementation

A desktop review and all seven interviews revealed that public opposition was a key barrier associated with the implementation of the LLRE Scheme. According to Solihull MBC, there were particularly negative perceptions around reallocation of road space, priority at junctions and impact on traffic. They believed this was linked to declining patronage around public transport and was unlikely to improve until the “...right infrastructure is put in place”. They also indicated that demonstrating the scheme would involve “...little or no material impact on general traffic...” and “...addressing local concerns...” were key challenges associated with the scheme. However, they identified that bus priority needs road space which leads to problems with residents and car users. They indicated that “car users especially don’t like hold-ups so with road space you can get conflict”. Therefore, they suggested there needs to be “...better engagement with residents...” and getting the public and stakeholders on board is equally important. TfWM shared a similar view and believed there is a negative perception from the public when bus priority is introduced, stating:

“There needs to be a change in mind set about buses. It doesn’t help that buses are privatised and people think bus companies just want to make money. That’s not the case and we have a very good relationship with them. There is a perception that we are just trying to help the buses make money. Actually, it’s for the public good.” [Interview 4]

Several examples were provided during the interviews where public opposition was a key barrier for the implementation of the LLRE Scheme. Solihull Ratepayers Association indicated that there was a lot of objections to cutting down trees and there were strong objections to getting access to various locations. For example, “...delivery vehicles couldn’t get into the car parks” of the JLR site and therefore the traffic lights had to cope with all that. Solihull MBC also pointed out that there were “...major problems with big businesses at Radcliffe House...” and there were objections to TROs to stop vehicles going into their properties. Therefore, Solihull MBC were “threatened with judicial review...” but negotiated their way out of it.

Meanwhile, Solihull MBC pointed out that there was particularly a lot of rejection from local residents due to the “...right turn into Bayfield Road and that also goes to a school”. They believe that “there is a need to satisfy local residents along the route...” especially to avoid objections when TROs are being implemented as this can “...cause great unrest amongst residents”. They also feel public opposition is the greatest barrier to overcome and people don’t like change or buses. TfWM also shared a similar view, stating:

“I think anything you do will create opposition. If we change a load of bus services, 99% will see the benefits but the 1% will be the loudest. Sometimes you just have to accept there is going to be opposition and just have to carry on. People don’t like change.” [Interview 5])

TfWM also pointed out that they “...seldom get public opposition...” when they are consulting on a bus strategy but it mainly occurs when they are “...trying to implement the scheme”. This could suggest that there is a greater change of opposition when a scheme has been agreed or expected to be implemented, which reverts back to people not liking change.

Furthermore, public opposition occurred for the implementation of the LLRE Scheme as a result of buses having a poor image, stating:

“It’s a massive issue in Solihull because in the south of the borough in particular, people are generally well educated and like to get involved in local issues. Those type of people don’t generally use the bus. Those using the Lode Lane are generally coming from the north side which is quite deprived in comparison with low levels of car users and low levels of education. So public opposition was a massive barrier to us and that then manifested into political issues.” [Interview 2]

To overcome these barriers associated with opposition, Solihull MBC carried out consultations with residents and ward members to assess the best options to deal with issues raised in petitions. They also indicated that it was helpful to be working with Solihull MBC, stating:

“We did find it quite challenging to get any bus measures in and around the region due to opposition. Working with Solihull Council was quite refreshing. They were keen to deliver it and could see the benefits of putting in bus lanes. We have a good relationship with the bus operators too.” [Interview 2]

Time limitations to prepare the scheme were another key barrier and TfWM pointed out that they were under pressure to complete various stages of the business case such as stakeholder consultation, additional consultation, TROs and leading times for land acquisition. They also indicated that having to complete these stages of the scheme at one time created problems. However, TfWM felt they were successful in meeting the timescale because the key stakeholders worked together efficiently, stating:

“One thing that frustrates me, particularly working in a local authority environment, there’s a lot of people trying to pull the brakes and we couldn’t do that so it was useful in getting the job done. We all had to pull together to meet the timescale.” [Interview 5]

They also indicated that their time management can be an exemplar for other districts who are planning to implement bus priority like the LLRE Scheme.

“I’m very much focused now on bringing forward schemes which are more quick-win, below five million and improving bus journey times and speed. Lode Lane has been helpful with that and it is proving to be an exemplar. I can now speak to other districts about maximising road space and try get segregation in for buses without affecting cars and traffic.” [Interview 5]

Reshaping or changes to bus policy during implementation also appeared to be a barrier for the implementation of the LLRE Scheme. TfWM pointed out that several changes occurred when the scheme was passed onto other members with different roles for implementing the scheme.

“Reshaping or changes to policy do happen quite a lot when it comes to implementation when you have a transport planner with a concept of a scheme and that might change from a design perspective with the highways team. That happened a lot with this scheme, where we would come up with the scheme. It would be passed on to the highways team and they would assume the client role and go in changing loads of things and it loses its scope. If there were any changes you would have to revert back to the client”. [Interview 4]

Political support was another key barrier associated with the LLRE Scheme. TfWM pointed out that Lode Lane has more people using buses in the morning peak hour than there are people using cars. They believe it is important to show that the LLRE Scheme is about moving people and not traffic, and that they are trying to help or speed up the majority of those people during the peak hours in the morning to access employment and economic activity. However, they feel “people in general don’t like bus lanes and bus users are a voice that is not heard by politicians”. For this reason, they believe the biggest barrier to implementing schemes like the LLRE Scheme is “...political”. They indicated that, politically, bus priority is quite difficult to implement because it affects car users. Therefore, they believe there should be more of a desire to do smaller scale schemes like the Lode Lane bus priority and getting support from politicians is important.

Solihull MBC shared a similar view and believe it is important to have a “...stable political administration because if you don’t, you could go from one scheme to another with different politics and different views of doing it”. Meanwhile, TfWM believe that

once the schemes are implemented, it is important to demonstrate that they are successful and to act as an exemplar to show that they are working well. They also feel that “there needs to be really strong enforcement of bus lanes that are kept under constant review” but political support is needed to help achieve that.

A final barrier associated with the LLRE Scheme included priorities of staff. TfWM pointed out that at a local level, all local authorities have staff to deliver the scheme but “...too many authorities are delivering road schemes that benefit car drivers”. However, they feel that the support from the policy champion from Solihull MBC was helpful because they “...wanted to drive change”. They also highlighted the importance of having a political champion for the implementation of the LLRE Scheme, stating:

“Lode Lane had a champion who could see the benefits of the scheme but it wasn’t without challenge because there were lots of local members who were against the scheme and couldn’t see the benefits. Too few politicians and decision makers use the bus and that’s also a massive obstacle which is why we sometimes still focus on the wrong priorities. There is always funding and you just need the priorities right and political champion to do it.” [Interview 5]

7.4.3 Theoretical analysis of Lode Lane Route Enhancement Scheme

This section will analysis the results obtained in the interviews carried out with representatives from the Solihull area on the LLRE Scheme. The 10 variables of the decision support framework are used to analyse the results of the interviews and this in turn will help determine the barriers and enablers which have an impact on bus policy implementation. Furthermore, it will address the third research objective to help meet the aim of this thesis.

- 1. Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.*

A contributing factor to the LLRE Scheme was evident where those involved with the policy process shared the same policy objectives. While the bus operators want to save money, TfWM wanted to tackle congestion issues in Solihull and to improve connectivity for passengers. Therefore, those involved had different reasons for wanting to implement

the scheme but they shared the same policy objective for the scheme to succeed. However, there appeared to be some challenges in place to deliver the scheme and it was noted that it was difficult to translate some policies into practice because of a lack of political support to help deliver the scheme. The interviews revealed that although a council can have a policy, decisions are still driven by local politicians. Furthermore, while those involved can agree on a policy, the actual implementation of the scheme still comes down to one individual to decide whether it can happen.

Both the interviews and a desktop review revealed that Solihull does not have a specific bus strategy or a LTP. However, bus policy for Solihull is captured within the 'West Midlands Local Transport Plan 2011-2026' but according to TfWM, it focuses lightly on buses. Meanwhile, at a regional level, the guiding strategy for the TfWM area is the SEP, while the West Midlands Strategic Transport Plan, 'Movement for Growth' supports this SEP. However, it was discovered that there is nothing defined around the strategy in relation to bus policy within these documents. Therefore, while it is evident that there is a lack of bus policy documents in place to support the LLRE schemes, it would appear that the scheme was supported in terms of an economic development policy context, not specifically a transport or bus policy context.

In terms of policy measures, there appeared to be issues around the regulatory framework which can have a negative impact of bus measures being implemented. For example, during the election for a new mayor in the West Midlands, candidates were wanting to reduce fares. However, candidates cannot reduce fares because they at that time did not have that control. Similarly, they cannot improve emissions or introduce WIFI because they don't have control over these measures either. TfWM also pointed out that while they have a good relationship with the bus operators, the delivery of some bus measures can be a challenge due to a lack of direct control.

A desktop review and the interviews revealed that LLRE scheme did not set specific targets which it was required to meet. Instead, the outcomes of the scheme were measured in terms of increasing social and economic activity and the creation of jobs in the town centre. Meanwhile, the bus alliance sets targets for the West Midlands region and the

LLRE Scheme helps to meet these targets. However, these targets were set before the implementation of the scheme.

Monitoring also appears to be an important component of the LLRE Scheme. Currently, the scheme is largely monitored through traffic flows and the National Express also carry out monitoring and provide TfWM with their data to perform comparisons. Solihull MBC also have a transport team who monitor bus patronage and they receive feedback from local members to pick up any problems such as where motorists are held up in traffic. There are also passenger champions who twice a year they do a survey on satisfaction which is then monitored. However, while monitoring appears to be an important component of the LLRE Scheme, the interviews revealed that in general monitoring and evaluation can have less focus when they move onto other projects and it is therefore important to have a strict monitoring regime in place.

Overall, the Scheme appeared to be successful in setting scheme objectives, however the scheme does not set specific targets and some measures were difficult to implement. In contrast to this, monitoring of the scheme appears to be successful. Therefore, this indicates that there is an unclear link between designing the policy, setting targets and suitable measures to achieve those targets, and monitoring those targets for implementing the LLRE Scheme.

2. Availability of resources: Resources such as financial support is important; however, where resources are limited, it is necessary to maximise the use of available resources.

In general, funding is a key barrier for the implementation of bus schemes because of the bidding process in place and recent cuts to council funding. However, it would appear that Solihull MBC maximised the use of available funding because while there was no one major fund available for the scheme, they were required to assemble funding from a variety of sources. Meanwhile, the availability of resources appeared to be an enabler for implementing the scheme due to an unexpected underspend within the GBSLEP's Local Growth Fund programme for 2015/16. This meant Solihull MBC received funding sooner than anticipated and were required to spend it quite quickly. This in turn put pressure on Solihull MBC to be focused on delivering the scheme at a fast pace. On the contrary, the

delivery of the scheme may not have worked out so well if there had been less time pressure on staff.

3. Intra-organisation support and communication: Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.

Intra-organisation support and communication were key components which helped to implement the LLRE Scheme. The case study revealed that there was strong support and communication between Centro, West Midlands Passenger Executive, National Express West Midlands and the local bus operator. This was also evident prior to the LLRE Scheme when the organisations worked together for many years when they carried out a series of bus network reviews across the region. Therefore, this support and communication between the organisations involved may be because of having previous experience of working together. Further evidence of support and communication were identified with the bus operators through the bus alliance and this included collaboration between the bus operators and other key stakeholders. While there were many challenges faced during the implementation of the scheme such as public opposition, it was vital for the existence of support and communication between those involved in delivering the scheme.

4. Characteristics of organisations: Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).

Characteristics of the organisations involved in the LLRE Scheme appeared to be a barrier in the form of the workload with which staff had to deal. As the scheme was brought forward, the detailed design, costing and procurement had to progress simultaneously instead of sequentially. Therefore, staff were faced with time limitations to prepare the scheme and were under pressure to complete various stages of the business case such as stakeholder consultation, additional consultation, TROs and leading times for land acquisition. Other barriers associated with the characteristics of the organisations were raised during the interviews including competency of staff and priorities of staff. However, this case study has revealed a strong relationship between the operator, JLR and a policy champion at Solihull MBC which highlights the importance of having a good working

relationship within and out with their own organisation. This also highlights that both formal structural features and informal attributes played an important role in delivering the LLRE Scheme.

5. Economic, social and political environments: Current and future economic, social and political environments play an important role on the outcome of the policy process.

Economic, social and political environments played an important role on the outcome of the LLRE Scheme. At the time of the scheme being proposed, economic conditions were particularly helpful for developing the business and to demonstrate the expected impact of the scheme as a result of having the economic conditions which were in place. Solihull was of particular interest because it has the most productive economy in the Midlands and includes important assets such as Birmingham Airport, the NEC, Jaguar Land Rover, Birmingham and Blythe Valley Business Parks and Solihull Town Centre. Solihull is also a central location on the national motorway and rail networks which provides access to key sectors such as automotive manufacturing, ICT, business and professional services, creative industries and construction. The Lode Lane corridor also provides direct access to jobs at JLR, Solihull Hospital and within Solihull Town Centre. Furthermore, the new HS2 will bring new opportunities for economic growth in the area and will assist with the delivery of the UK Central Hub area which proposes new jobs and residential areas. The scheme also forms part of the UK Central Growth and Infrastructure Plans which will make a major contribution to economic growth in the LEP area.

Social environments appeared to be a barrier for the implementation of the LLRE Scheme. For example, car users especially are a key barrier for implementing the scheme because there are some drivers who don't like hold-ups and road space being taken away from them. Therefore, there is negative perception from drivers when a scheme like the LLRE Scheme is introduced. Meanwhile, there is an image problem with buses which was identified as a "...massive issue..." in Solihull. TfWM indicated that people living in the south of the borough are generally well educated and like to get involved in local issues. By comparison, they suggested those travelling on the Lode Lane corridor are generally coming from the north side which is quite deprived in comparison with low

levels of car users and low levels of education – yet they were less vocal than those from the south, even though they would benefit from the scheme.

Political conditions were also another key barrier associated with the LLRE Scheme. This was evident when TfWM explained that Lone Lane has more people using buses than cars in the morning peak, however people fail to understand that the LLRE Scheme is about moving people and not modes, and that they are trying to help or speed up most of those people during the peak hours in the morning to access employment and economic activity. TfWM believe bus users are a voice that is not heard by politicians and for this reason, they believe the biggest barrier to implementing schemes like the LLRE Scheme is political. They also indicated that, politically, bus priority is quite difficult to implement because it affects car users. Overall, the case study has revealed that a lack of political support results in a lack of understanding around bus policy, uncertainty about what the council is trying to achieve and a lack of support to keep under constant review enforced bus lanes. Therefore, there is a desire to implement smaller scale schemes like the LLRE Scheme but getting support from politicians is vital.

6. Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.

A key policy champion from Solihull MBC played an important role in implementing the LLRE Scheme. Many of those interviewed could see this policy champion as responsible, competent and motivated and as someone who could see the benefits of the scheme and wanted to drive change. The champion was responsible for undertaking regular project control meetings, liaising with those involved with the delivery of the scheme, ensuring timescales and budgets were met and any issues were identified early. The champion also played an important role to try overcome obstacles such as local member who were against the scheme and couldn't see the benefits. However, it would appear that the champion received strong support from those involved in the scheme and who worked at Centro, West Midlands Passenger Executive, National Express West Midlands and the local bus operator. Meanwhile, there was also support from passenger champions who twice a year do a survey on passenger satisfaction.

- 7. *Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.***

The case study provided limited evidence of hierarchical control or power within the organisations involved. TfWM revealed that several changes occurred to the scheme design when the scheme was passed onto other members with different roles for implementing the scheme. For example, the highways team “...assumed the client role...” and therefore they had the power to make changes or control other changes which occurred during the scheme”. However, it is not known from the data collected for this case study if changes by the highways team had an impact on the scheme.

- 8. *Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.***

Collaboration and interaction between the key actors involved in the LLRE Scheme were important factors for implementing the scheme. This was evident prior to the initial scheme proposal where Centro, West Midlands Passenger Executive, National Express West Midlands and the local bus operator were working together to develop new ideas to improve public transport along the radial corridors into the town centre. Following the decision to implement the scheme further collaboration and interaction between the key actors involved was identified. For example, TfWM supported Solihull MBC with data, Atkins worked with TfWM on the initial feasibility and preliminary design, Solihull MBC were proactive in engaging with JLR about their site and the National Express shared their data with Centro to carry out monitoring and evaluation of the scheme which in turn avoided incurring additional costs. Solihull MBC also collaborated with TfWM to help deal with customers and general queries along the way. This case study therefore revealed the importance of collaboration and interaction between the key actors involved to deliver the scheme.

9. Policy remodelling: Limited changes to the policy should occur from the design stage right through to the implementation stage.

A number of changes occurred during the implementation of the LLRE Scheme and this in turn created challenges. Changes included the removal of cycle lanes, repairs to the canal bridge on Lode Lane and adjustments to the TRO at Ratcliffe House. Meanwhile a proposal was put to JLR for the transfer of some land adjacent to the highway for the scheme, however they could not agree terms on the cost of the purchase and the scheme was therefore amended. Reshaping or changes to bus policy during implementation was also identified as a barrier when the scheme was passed onto other members with different roles during the implementation process. For example, when the transport planner has a different concept of the scheme and this then gets changed by the highways team with a different concept from a design perspective. These changes resulted in delays for delivering the scheme and are therefore identified as barriers which hindered the success of the scheme.

10. Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

Public opposition was identified as one of the key barriers associated with the implementation of the LLRE Scheme. Although Solihull MBC could demonstrate that the scheme would involve little or no material impact on general traffic, there was still opposition from the public. This opposition was associated with cutting down trees, getting access to various locations and TROs to stop vehicles going into properties of residents. Therefore, public opposition was identified as a major barrier for the implementation of the LLRE Scheme and created unrest amongst residents. To overcome these barriers associated with opposition, Solihull MBC carried out consultations with local residents and ward members to assess the best options to deal with issues raised in petitions.

In terms of political power, it was noted that too few politicians and decision makers use the bus and this can create a massive obstacle as they are focused on the wrong priorities. Nonetheless, given the success of the LLRE Scheme it would appear there was

enough political power to help deliver the scheme. Therefore, political power is a key component which can influence schemes such as the LLRE Scheme. It would also appear that there were no real concerns related to bus wars or open-access to data by bus operating companies for the implementation of the LLRE Scheme. Instead, it was apparent that the National Express were helpful in sharing data with Centro to carry out monitoring and evaluation of the scheme. Meanwhile conflicts between neighbouring authorities over budgets did not appear to be a barrier for the implementation of the LLRE Scheme. Although TfWM discussed the bidding process in place and the importance of winning bids to implement schemes like the LLRE Scheme, the interviews did not reveal any conflicts between neighbouring authorities over budgets.

7.4.4 Summary of case study 3

The third case study has examined the LLRE Scheme in Solihull. To help understand the success of the scheme, the barriers and enablers were identified by carrying out a theoretical analysis using the decision support framework. Six variables of the framework identified the barriers to the scheme which include policy objectives, characteristics of organisations, social and political environments, bureaucratic power and policy remodelling. In contrast to these six variables of the framework, four variables identified the enablers which helped to implement the scheme. These include the availability of resources, a policy champion, intra-organisation support and communication and collaboration and interaction between those involved in the policy process. Overall, the LLRE scheme proves to be an exemplar of successful bus policy implementation.

7.5 Case Study 4 – ABC Scheme, Dundee City

The fourth and final case study examines the ABC Multi-Operator Smart Ticketing Scheme, Scotland. The following sub-sections include a case narrative, which will then help inform issues arising from the case, followed by theoretical analysis and concluding remarks on this case study.

7.5.1 Case narrative

The following sub-section presents a narrative of the fourth case study on the ABC Multi-Operator Smart Ticketing Scheme in Dundee. A total of five interviews were carried out

with eight representatives who were involved in the scheme. These include representatives from Xplore Dundee, Stagecoach, Dundee City Council (DCC), Transport Scotland and Tactran. A list of interviewees and their role can be seen in table 7.13 below.

Table 7.13: ABC Scheme interview participants

Interview	Organisation	Number of participants	Role of participant in organisation
1	National Express Xplore Dundee - National Express West Midlands	3	Operations Manager, Engineering Manager,
2	Stagecoach East Scotland	1	Project Manager
3	Dundee City Council	1	Sustainable Transport Team Leader
4	Transport Scotland	2	Head of Concession Travel & Integrated Ticketing,
5	Tactran	1	Non-Councillor Member of Partnership Board

7.5.1.1 Smart ticketing and voluntary partnership agreements (VPA)

Smart ticketing is an important element of a modern public transport system. The Integrated Transport Smartcard Organisation (ITSO) supplies smart ticketing to transport authorities and bus operators and provides specification to deliver smart, integrated and interoperable ticketing across Great Britain. An ITSO smartcard is an electronic travel ticket which can be loaded onto a micro-chipped smartcard or mobile phone which then allows passengers of public transport to seamlessly hop on and off buses, trams or trains without having to use cash or a purchasing a paper ticket (ITSO, 2017). According to Transport Scotland (2012) all 7,100 buses in Scotland are equipped with ITSO smart ticket machines and were installed between 2006 and 2010.

In 2011, a study was commissioned by Transport Scotland to help improve policy towards smart and integrated ticketing. As part of the study, PricewaterhouseCoopers LLP (PwC) produced an Outline Business Case (OBC) for smart & integrated ticketing in Scotland. The OBC indicated that there were fundamental uncertainties around the achievability of benefits for smart and integrated ticketing. Furthermore, it was found that the bus operators had shown limited appetite for discussions about integrated ticketing.

Other concerns with smart ticketing were also highlighted by ITSO (2017) and they indicated that the original equipment on buses have a credible lifespan of at least 5 years and therefore will need to be replaced. The equipment also does not contain dual readers which means they cannot read EMV (contactless bank cards). Meanwhile, bus operators have expressed some concerns about the quality and speed of repairs by suppliers.

To help deal with the issues associated with smart ticketing, the “2012 Smart Ticketing Delivery Strategy” was published by Transport Scotland, (and which is currently under review). The objective of this document was to bring all interested parties up to a common level of understanding around smart ticketing, in non-technical language, and to stimulate interest, discussion and feedback. This in turn would help meet the long-term vision for all journeys on buses in Scotland to have form of smart ticketing. The strategy highlights the key benefits of smart ticketing which include:

For Passengers:

- Ease of use
- Access to new ticket types
- Greater choice on how to pay for travel

For Operators:

- Less cash handling
- Greater information about customers
- Greater marketing opportunities
- Revenue protection
- Potential for increased patronage
- Quicker boarding times
- Ability to develop new ticket products

For Society:

- Modal shift to public transport
- Perception of a more modern public transport network

However, since the bus sector is a deregulated market in the UK (outside of London), bus operators are not legally required to introduce smart ticketing. There is also no existing legislation covering smart ticketing, however, there is legislation which enables the creation of regional ticketing schemes on buses. Section 28 of the Transport (Scotland) Act 2001 gives local authorities a duty to determine ticketing arrangements for local bus services in their area. If those arrangements are not made, the local authority has a duty to seek to secure the agreement of those services. If the local authority is unable to secure that agreement, section 29 of the same Act indicates that the local authority, or two or more local authorities, may introduce a ticketing scheme if it was of interest to the public and enabled them to implement their relevant general policies (Transport Scotland, 2012).

There are several ticketing schemes implemented across Scotland such as Zonocard in west central Scotland and the Grasshopper scheme in Aberdeen and Aberdeenshire. However, these schemes came about on a voluntary basis and did not require the use of the provisions in the 2001 Act, nor has any other scheme used these powers. Meanwhile, the governance arrangements for these schemes are also based on VPA between those involved. (Transport Scotland, 2012).

A VPA is a written agreement that would be entered into by the local authorities and local bus operators. In a VPA, local authorities would commit to providing infrastructure like priority lanes, stops and interchanges and negotiate arrangements for use of that infrastructure. Meanwhile, the bus operators would meet this with commitments on vehicle standards, maximum fares, frequencies and timings.

Bus operators have also developed their own smart ticketing offerings. For example, Stagecoach introduced ITSO smart ticketing across their entire network of services in Scotland while in 2002, Lothian Buses introduced smart ticketing, although it is a proprietary system and therefore not interoperable with other schemes. In March 2016, Scotland's five largest bus operators (Stagecoach, First, Lothian Buses, McGills and Xplore Dundee) also made a series of commitments to the Transport Minister to introduce smart ticketing. A key reason for these commitments was due to the lack of a multi-operator

ticket which was hindering modal shift, hence why the government felt it was important to introduce smart ticketing.

7.5.1.2 ABC Scheme proposal

On the 18th March 2017, bus operators across Scotland outlined their commitment to deliver multi-operator smart ticketing for millions of Scottish bus customers. All major operators in the UK had previously made a commitment to various government bodies that in conjunction with their own commercial products (which are delivered by smart format) to seek and deliver several products with a view to make it easier for people to travel in a multi-operator environment. This commitment was made in the UK at a ministerial level in England while a similar commitment was made in Scotland by Transport Scotland.

The All Bus Companies (ABC) scheme was proposed for Dundee which allows passengers to travel across Dundee and the surrounding areas with one smart ticket. This scheme was one of several pilot schemes as part of Transport Scotland's vision to introduce smarter travel across Scotland. The three other pilot schemes include the Grasshopper in Aberdeen, with further schemes proposed for Edinburgh and Glasgow. The ABC scheme was therefore proposed as one of Scotland's first smart multi-operator travel schemes which would be launched across the North East of Scotland by a VPA between local bus operators and local authorities, with support from Transport Scotland, as a means of introducing smarter travel. The VPA involved the councils for Dundee, Angus and Fife, Stagecoach, Moffet Williamson and National Express Xplore Dundee. The launch of ABC would also be part of a country-wide scheme which aims to pave the way for seamless travel between bus, rail, ferry and subway. Figure 7.11 illustrates the ABC scheme and its boundaries within the Dundee area.

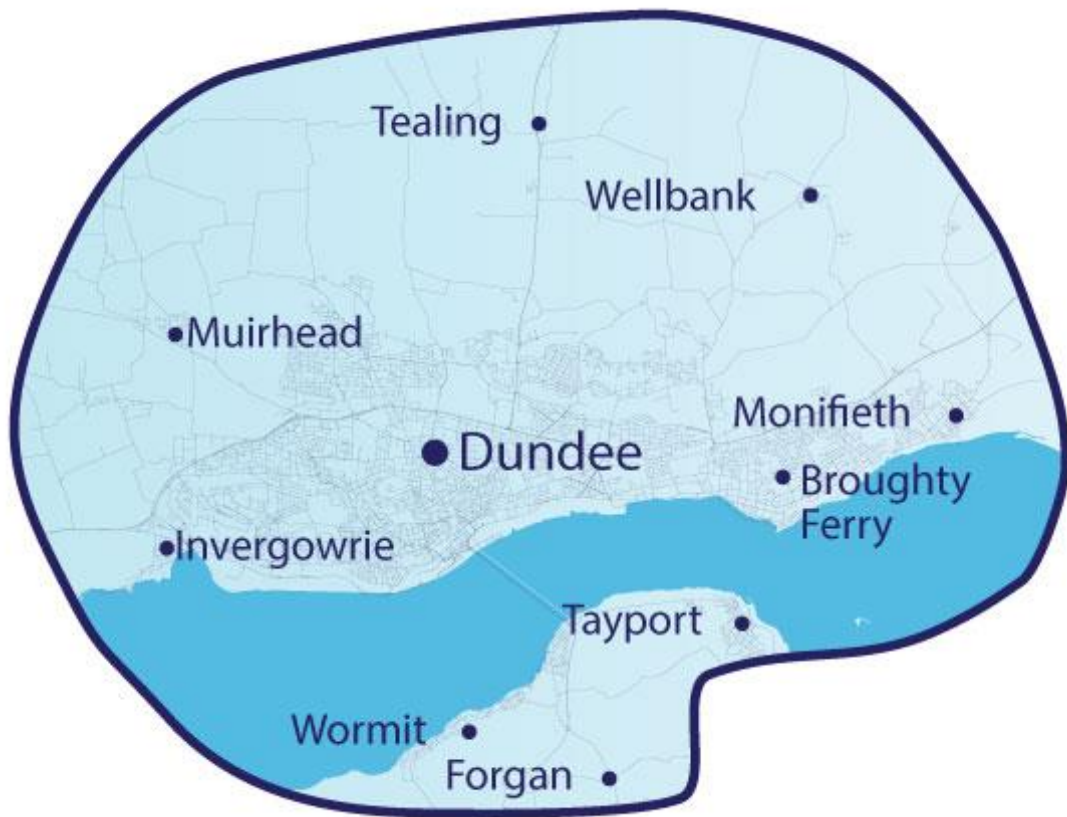


Figure 7.11: ABC Scheme and boundaries (Stagecoach, 2017)

According to Stagecoach, the ABC was a good starting point to carry out a pilot study because there is a reasonably small number of operators with a good operating environment in place and the city is isolated in terms of the zones involved. Therefore, Dundee was an ideal pilot before moving to “more challenging environments” in Glasgow and Edinburgh which are bigger cities.

The ABC Scheme was partly introduced because the Transport Minister at the time said he wanted to see more smart ticketing and the bus operators in the industry working together more closely. However, if the operators in Dundee were unable to launch smart ticketing, Transport Scotland would design a scheme themselves and therefore National Express took the lead on the ABC Scheme. National Express also had the technology in place which facilitated them to work with Stagecoach to develop multi operator smart ticketing.

In terms of the costs, the scheme is funded predominantly by the private sector and, according to National Express, the costs were only marginal for the operators in Dundee to deliver the scheme. Meanwhile the back office which covers the country required substantial investment and cost millions of pounds. National Express pointed out that the smart environment is built around a banking standard at back office which is very weighty, very specification driven and extremely secure so the transactions associated with delivering a smart product are encoded almost identically to how transactions in the banking environment are encoded. There is also a double level of security applied to a simple transaction which requires a number of ‘keys’ to translate them. This in turn cost approximately 10 million pounds but once the back office was built, the roll out for the ABC Scheme and other smart ticketing schemes are relatively marginal.

The implementation of the ABC Scheme required internal efforts and time as opposed to financial investments. Most of the staff time was required by the bus companies. In terms of technical costs, the bus operators already had the ticket machines in place while Stagecoach and National Express had smart cards in place. However, Moffet and Williamsons were required to invest in smart cards which cost one pound each. Further costs included £25,000 on marketing and the launch of the new product, which was funded by the partners involved.

The low costs were one of several motivations to implement the scheme. Another motivation for the scheme was that it could be expanded on the market which is called the “near-market” by making it easier for people to travel on buses by breaking down the barriers in terms of a lack of product knowledge so people had an understanding of which bus operator “owns” the tickets and which bus they can use the different tickets on. It also gives a simple option of having one ticket so passengers do not have to worry about which bus to use. Therefore, the simple concept of the ABC Scheme was to enable people to use tickets on “all the buses” in Dundee.

7.5.1.3 ABC Scheme preparation

The ABC Scheme offers passengers unlimited travel, every day and is valid on all bus company routes across Dundee and the surrounding areas. It includes an electronic ticket in the form of a plastic card with an embedded microchip that stores the travel tickets.

The ABC ticket can be purchased from any bus driver from the start of journey or it can be loaded onto current smartcards such as the Stagecoach card, Xplore Dundee Discover card, Moffat and Williamson card, National Entitlement card and Young Persons or Kidz card. The passenger can also purchase a new smart card from the driver when boarding the bus, Dundee bus station or the travel shop on Commercial Street. The smartcards are free of charge, re-usable and can be loaded on the bus with smart tickets including ABC Day or ABC Week passes.

Once the smartcard is purchased, it is placed on the ticket reader of the bus and the driver is informed of which ABC ticket type is required to be loaded onto the smartcard by the passenger. This is the same procedure for the renewal of tickets where the driver can load the required ticket type into the smartcard in exchange of the cost for the chosen ticket type. Tickets can also be renewed at Xplore Dundee travel shop or the Stagecoach travel shop at the bus station. Child tickets are valid for customers aged 5-15 years old and children under 5 travel for free on all bus services. The ABC ticket types are provided in table 7.14.

Table 7.14: ABC multi-operator ticket types (Xplore Dundee, 2016)

Name	Eligibility	Period of Validity	Price	Mode	Type
ABC day ticket	Adult	1 day starting at 01:00 hrs on day of purchase and ending at 00:59 hrs on day 2	£4.20	Bus only	Smart Product On/Off-bus ticket
ABC week ticket	Adult	1 week starting at 01:00 hrs on day of purchase (day 1) and ending at 00:59 hrs on day 8	£14.50	Bus only	Smart Product On/Off-bus ticket
ABC day ticket	Child	1 day starting at 01:00 hrs on day of purchase and ending at 00:59 hrs on day 2	£2.90	Bus only	Smart Product On/Off-bus ticket
ABC week ticket	Child	1 week starting at 01:00 hrs on day of purchase (day 1) and ending at 00:59 hrs on day 8	£9.50	Bus only	Smart Product On/Off-bus ticket

Schedule 6 of ABC ticketing agreement indicates the steps to be taken for revenue distribution. The smartcard sales made by each participating bus operator each month are recorded through each operator's electronic ticketing machine systems. One hundred per cent of the total revenue collected from the smartcards by each operator is paid to the Scheme Administrator (DCC). The administrators analyse the data on how the tickets have been used and the revenue is then distributed among the participating operators based on the sum patronage as recorded by the operators. According to National Express, "...it works very well".

7.5.1.4 ABC Scheme outcome

According to National Express, the scheme took 18 months of planning, preparation and testing of the system before it was implemented. There were also discussions on the logistics and meetings between Transport Scotland, the councils and local bus operators on how the scheme would work for the customer. However, the scheme encountered several delays which were raised during the interviews. National Express pointed out that there were delays in getting the balance right between Scottish laws and English laws when making contracts with the lawyers and legal team for the scheme. The scheme was also delayed by a couple of months caused by an issue in the secure access modules which sit inside the ticket machines, the equivalent to a sim card in a mobile phone. Also, configuration issues were encountered with these machines and there were problems with the hardware of the software and hardware of the computer.

On 12 September 2016, bus passengers could purchase the ABC multi-operator tickets which brought convenience to bus passengers across the whole of Dundee and surrounding areas. Since the launch of the scheme, DCC carry out regular analysis of the number of passenger journey trips per month. On average, there have been 30,000 passenger journey trips on smart tickets a month, which is 2% of the total trips made by bus in the Dundee area. DCC also pointed out that during the first few months of the scheme being implemented, there was growth in the sale of smart tickets. However, since August 2017, the sale of smart tickets has plateaued. Therefore, further marketing has been proposed to help improve smart ticket sales.

In terms of monitoring, there is no contract between Transport Scotland and the bus operators. However, Transport Scotland pointed out that there is an understanding and agreement with smart zone cities to carry out monitoring and to provide updates about the state of these projects as they are implemented, followed by monthly statistics on the schemes performance. It is also in the early stages of implementation and therefore requires more time to collect data required to monitor.

Given the success of the ABC Scheme, it is proposed that the ABC Scheme will be extended into Angus, Perth, Kilross and Fife. A bid has been placed as part of the Tay Cities Deal to extend the scheme and if the bid is successful, there will be potential for other bus operators to join Moffet and Williamson, Stagecoach and Xplore Dundee to operate the scheme. This in turn will support the objectives of the Tay City deal by supporting economic growth for the long-term unemployed progressing into employment and improving access to training and job opportunities as well as social activities.

Phase one of the ABC Scheme is now completed, which involved the implementation of the ABC smart ticketing in Dundee City and the surrounding area. Phase two is currently being proposed which would extend the scheme to Angus, Perth, Kilross and Fife. Phase three would extend the use of the ABC smart ticketing to students and Stage four would introduce specialist products such as EMV contactless technology. However, there have been delays with progressing into phase two which was originally proposed to begin in March 2017 due to local elections being announced. This was followed by a national election and no decisions or approvals have since been made on progressing with phase two of the scheme.

7.5.2 Issues arising from the case

The following sub-sections discuss the issues that arose from the case study in terms of design, existing bus policy document, policy targets, monitoring of bus polices and barriers to implementing the scheme.

7.5.2.1 Issues with scheme design

Many barriers were associated with the design of the ABC Scheme and this was inevitable as Dundee were the first in the urban network and Scotland to start from scratch and build

a smart ticketing scheme. Transport Scotland pointed out key issues associated with the scheme design which resulted in the scheme being delayed. Firstly, they indicated that prior to the scheme, there was a lack of stakeholder buy-in and felt they could have done more to get them involved and have their support. Secondly, they highlighted that relying on bus operators and their resources caused delays, stating:

“Also, we underestimated the length of time it takes for technical upgrades to the operators’ estates so we have learnt from that. Obviously, you are relying on bus operators and their resources and if something happens at a bus depot then it’s all hands on deck and they’re not working on your project so it’s about building contingency into your plans for these types of events. [Interview 4]

There also appears to be an issue with the information about the scheme provided online. An interview with Tactran revealed that the information provided on the DCC website, Stagecoach website and the Travel Dundee website described the ABC differently and therefore appeared confusing for someone looking for information about the scheme. It was also pointed out in the previous section (7.7.1.4) that further marketing has been proposed to help improve smart ticket sales. This appears necessary as DCC revealed that many people have not heard about the ABC scheme and therefore requires further marketing and advertising. They also suggested that Stagecoach promoted the scheme very well but National Express failed to promote the scheme when it was launched, stating:

“Xplore Dundee haven’t promoted it very well. The website doesn’t promote it very well and there’s limited advertising on the bus. They have over 100 buses and I’ve been on buses where there’s nothing to tell the passenger about the ABC. That is disappointing and I feel they are letting everyone else down with this lack of advertisement. It’s not our place to make them do it and I can only complain.” [Interview 5]

It would appear that further improvements are needed for the design to make the ABC ticket product more attractive for passengers. For example, intermodal transporta-

tion could enable more passengers to avail of the ABC smart ticket product if it was interlinked with other modes such as rail. However, National Express pointed out that while there are talks about intermodal, "...it's a long way down the line in terms of how it is perceived and how it works". They also suggested the scheme design could improve with the inclusion of contactless, stating:

"Contactless is the way forward and a lot of other places at looking at. Smart is going to be around for a long time and so there is a lot of discussion on contactless. But who pays for the administration of that scheme is where a lot of the problems are". [Interview 1]

Several issues were also associated with the vending machines required for the smart cards. This included an issue in the secure access modules which sits inside machines and also configuration issues with the machines. National Express also pointed out that a lot of the problems were to do with the hardware of the software and hardware of the computer, stating:

"Uploading a sheer amount of codes and staffs from a load of different products took such a long time to upload. One of the requirements was that it must be able to take every smart card in the UK so every machine is enabled to take a smart card. For example, it should be possible for someone with Cornish smart card to come on and buy one of our products on our vehicle as part of the compliance for this smart ticketing." [Interview 1]

National Express further pointed out that it took a long time to upload all the cards for the ABC product. Once the operators received the software, they had to be written, implemented and tested and this in turn caused delays and the launch date for the scheme had to be pushed back. DCC identified this as a key barrier for the ABC Scheme and indicated that while the bus operators had the correct ticket machines, they didn't have the right backup. They believe that until they invest in the right equipment, they can't progress forward and move onto the next phases of the scheme. Meanwhile, Transport Scotland explained the difficulties of these ticket machines, stating:

“Although we have over 11 years of experience, you don’t just pull them out of the box and plug them in. There needs to be time and resources in place to make sure they work from a technical perspective. You also have to make sure when you go live to passengers that you don’t have any flakiness.” [Interview 4]

Transport Scotland further pointed out that if customers have a bad experience, this would have a long-term impact on how they perceive smart ticketing. Therefore, they feel that they “...can’t afford to get it wrong and you need to implement it confidently...” so passengers will have a good experience and tell others about their good experience. They suggest if passengers have a bad experience, they will be less inclined to avail of the ABC Scheme.

7.5.2.2 Existing bus policy document, policy targets and monitoring of bus polices

Dundee City currently does not have a bus strategy or a bus policy document in place, as has been the case for the past 17 years. DCC feel this is something that they should have, however they indicated that they are “...not overly fussed...” about these documents and instead they refer to a RTS (2008 – 2023) produced by Tactran. Interestingly, DCC indicated that the push to implement the scheme by the Scottish government, First Minister and the Transport Minister were more important than having documents in place to aid them with the implementation of the scheme:

“I don’t think these documents are important at all. For me, the most important thing was the Scottish government, First Minister and the Transport Minister saying if you don’t implement the scheme, we’ll make you do it. So, they got things moving and we were one of the first cities to do it.” [Interview 3]

Meanwhile Transport Scotland feel that the while there is a RTS in place, they are “...helpful but not absolutely vital”. Instead, they believe bus policy documents are there for people to study and to get a flavour for what the council or Transport Scotland is trying to achieve and why. They suggested policy documents can become out of date and they can become compromised by a change in their available resources. Therefore, they feel it is important to have a balance between a policy document and the ability to form

relationships with key stakeholders. They also believe there is a consensus in Scotland that they are less important, stating:

“I think there is a general consensus in this part of Scotland away from having these documents. In general, there is an agreement that TS drives the policy around smart ticketing and have the resources such as skills, people, expertise and it’s not just about money. The LAs and regional transport partnerships will do their best to try and support and supplement what we are doing here at TS.” [Interview 4]

According to National Express, there were two key champions in the bus operating company who had the willingness and drive to deliver the ABC Scheme and be the first in Scotland to happen from scratch, instead of developing other policies. They indicated this was a big step forward for the operating companies, stating:

“Before the 2001 transport act, there was no way we could approach Moffet and Williamson and Stagecoach to develop a network ticket. Now that is allowed to happen and it has benefits for the travelling public. Hopefully it will grow for the whole market, not just for each of our markets.” [Interview 1]

Most interviews have revealed that there are concerns over the language used to explain bus policy and many people can get lost in translation. For example, Stagecoach feel local authorities are not specialists in relation to smart ticketing and therefore they are required to simplify the terminology used, stating:

“It’s not a criticism but there are not of a significant specialist resource to integrated systems. Things can get lost in translation and it’s a real barrier. What I end up doing, while I’m happy to engage with them and help them, I have to remember to write in English and try to translate to them in a simpler way.” [Interview 2]

Transport Scotland pointed out that there is a risk with smart ticketing as it can be over-complicated. Therefore, they suggest there is a general agreement that smart ticket-

ing is the way forward but bus policy should not include much more other than to encourage and support smart ticketing whenever these opportunities arise. Similarly, DCC pointed out that it is important that smart ticketing is not over-complicated, stating:

“...if you’re not careful, everyone loses interest. People stop attending meetings and the meetings stop happening, people forget about it. We were trying to work collectively on how to improve the network.” [Interview 3]

A desktop review and the interviews revealed limited information about the monitoring in place for the ABC Scheme. As the scheme is a VPA, Transport Scotland pointed out that there is no contract between themselves and the bus operators for monitoring to take place. Stagecoach indicated that instead, they captured quite distinctively what they wanted to get out of stage 1 and at the end of the delivery, there was a “...checkbox before stage 1 was closed down”. This showed that they had the key elements in place, a product that could be loaded, a customer service regime in place and a market regime design to stop modern build up. Meanwhile, Transport Scotland pointed out that they receive monthly data from DCC but they want to wait until the scheme has been implemented for a year to carry out monitoring, stating:

“In Dundee, the administration does share with us the monthly totals which is useful for us and I think there is a wider passenger research piece of work that needs to be done. But we need to wait until the scheme has been in place for a year because if you don’t then you get a response from something that is still growing and it might not tell you the full story.” [Interview 4]

Although there is limited information about monitoring in place for the ABC Scheme, the interviews revealed that there are key areas of the scheme which are measured. According to DCC, there are key performance indicators (KPI’s) and these include the number of people buying smart tickets. However, DCC pointed out that the bus companies helped them to collect this data. The number of passenger trips on smart tickets is collected monthly and satisfaction with bus services is also measured. The Scottish Household survey released data which asked the people of Dundee how they feel about bus services in the area. According to DCC, this satisfaction is measured as part of the KPI every year and if they were required to measure success in terms of bus policy, they

would refer back to this data. They also believe this is the only reliable way of judging how people feel about buses. However, DCC pointed out that a lack of access to data from the bus operators is preventing other parts of bus policy to be measured, stating:

“One thing I don’t have and I don’t get is bus patronage numbers from the bus companies. They do not share that information with us so I don’t know if there are less people travelling on the buses now in comparison to a year ago. They are cagey about sharing that information and they might say we never asked for it but they never offered.” [Interview 3]

Transport Scotland also pointed out that, specifically for the ABC Scheme and wider parts of bus policy, it is important to measure the policy in place to determine the success of it, stating:

“It would be unusual to put in a policy without means to measure it, whether it was in terms of volume or satisfaction. You need to understand if your policy has been a success or not.” [Interview 4]

In contrast to this, Tactran believe most measurements aren’t measurable in terms of policy and that quite often measurements don’t mean much, stating:

“For example, if there was an increase in patronage in the winter time, this is probably due to the weather and people wanting to use the bus. Quite often the measurements don’t mean that much. But the only way of testing policy is by measurements. Maybe there should be more measurement on passenger satisfaction and how people see things being operated and less on counting numbers.” [Interview 5]

Interestingly, the interviews revealed mixed opinions about having monitoring in place. DCC opposed the idea of having monitoring and feel that they are “...overly bureaucratic”, stating:

“One of the things that annoys me about working at a local authority is that when you get external funding, they always want monitoring and evaluations. They request too much information. I just like to deliver...and you don’t need

to monitor or evaluate a project to see if it's been successful or not." [Interview 3]

In contrast to this, Transport Scotland believe monitoring is "...always helpful and good practice..." for schemes like the ABC Scheme, stating:

"You need a plan and you need to know if you are on target to achieve it. Especially in the public sector if we are putting money and effort in to it, we are accountable for it and we will be audited on it. In general, you would expect that there would be governance and monitoring in place to measure the success and it would enable you to implement other similar schemes." [Interview 4]

Similarly, Tactran believe that monitoring should be in place to justify what was spent during the implementation of the scheme. They also suggest bids for a scheme should include money for monitoring, stating:

"You have to have some means of monitoring. You bid for the money but you never actually put money in for monitoring. None of us learn if we can't monitor. The money you bid for should include money for monitoring and when you put in your bid it should say the process of monitoring that it will be used." [Interview 5]

Furthermore, they believe there should be more conference papers on monitoring so others can learn from mistakes made. However, they suggested "people aren't brave enough to say if they have failed..." and "people don't want to talk about things that weren't a success".

In terms of targets, a desktop review and the interviews revealed no information about targets set for the ABC Scheme. Tactran pointed out that targets are a problem because "... people aim to deliver the targets, not the policy". They also feel targets don't reflect the policy, stating:

"Targets are only things you can measure but when you set a policy you quite often set targets which are the nearest thing you can find which don't actually

represent the policy. I spend more time filling in reports about measuring things which didn't really mean anything." [Interview 5]

7.5.2.3 Policy implementation and barriers to implementation

Several barriers were highlighted by the bus operators which had an impact on the ABC Scheme. National Express pointed out that one of the biggest barrier is the revenue for parking in Dundee City, stating:

"It's quite profitable for DCC and they don't want to lose that revenue but they also don't want to be pressurised with problems with traffic congestion and air quality issues." [Interview 3]

Therefore, they believe DCC promote car parks and the cost of parking in Dundee is quite reasonable in comparison to cities like Edinburgh and Glasgow. Using the bus associated with the ABC Scheme can then be less attractive in comparison to driving a car. National Express also pointed out that there is one area in Dundee that is deemed as one of the most polluted areas in Europe which is also the location of a carpark built by DCC. They also feel this is a political barrier, stating:

"At the same time, they tried to persuade the buses to reroute their vehicles out of that area. The council aren't very proactive in trying to reduce the amount of cars going there because of the revenue. So, there are quite a lot of political barriers involved too." [Interview 1]

National Express also pointed out that of the biggest barriers for the ABC Scheme was the infrastructure and the policies being implemented in the Dundee area. They feel that there is a lack of coherence with the road maintenance policy and the implementation of road maintenance against what they are trying to achieve by moving people around. They feel this is particularly a problem when the council have a "...5 year road maintenance plan..." and they are required to carry out road works, stating:

"We often find this 5 year plan gets accelerated and they have no game plan when it comes to utilities. They openly say that utilities will be digging up a road and they (the council) could have a major plan in place and utilities will

come along and dig up several roads which creates absolute havoc for the bus network. The extra resources we have to put in to make sure our services are reliable is astronomical and it's not even acknowledged by the road maintenance planners." [Interview 1]

Another barrier identified in this case study includes local elections. As previously mentioned, stage 2 of Dundee ABC Scheme was put on hold because of local elections being announced. This was followed by a national election and no decisions or approvals have since been made. Stagecoach identified these elections as a barrier, stating:

"No one would approve the decisions or make the decisions on scope until after the elections. We got through the local elections and then we had a national election and again it's on freeze. It's just waiting to see who will be in charge of Dundee and Tayside once things are settled down." [Interview 2]

Conflict between the bus operators and the council was identified as another key barrier in this case study. Stagecoach pointed out that they often "...don't see eye to eye on things". They feel that while the council have an obligation to provide transport for targeting groups, they don't feel there are enough passengers availing of the ABC Scheme, stating:

"Our business is a mass market and we make very little per passenger, it's only a few pence per journey so we rely on making money by carrying a volume and mass of people, then all of those pennies add up as you carry 1.2 billion people per year...but it becomes expensive and difficult when we have such a small amount of people using it. If you have over 100 of these small schemes carrying 100/200 people, it just gets stuck in testing for months and months because it's a lot of work." [Interview 2]

A lack of data provided by the bus operators was identified as another barrier. DCC pointed out that they don't receive data from the bus operators in relation to bus patronage numbers, therefore they can't identify if there are fewer people travelling on the buses now in comparison to a year ago.

“They are cagey about sharing that information and they might say we never asked for it but they never offered. I have verbally asked for the information but they will never cough up the information. I don’t know which routes are profitable in Dundee.” [Interview 3]

DCC further pointed out that a reason for this lack of data is because they don’t have control over the buses in terms of fares, routes, frequency or other quality aspects such as the politeness of bus drivers. Therefore, they feel that these issues are with the bus companies and then “...feel annoyed...” when people blame the council if there is a problem.

Priorities of staff and staff time were identified as other barriers for this case study. For example, Stagecoach pointed out that externally, they had a lot of requests from politicians, local government bodies, and the wider environment. Therefore, they found it difficult to prioritise their resources. Meanwhile, DCC pointed out that the bus operators were reluctant to see the ABC Scheme as a useful scheme to invest time and effort into doing. They felt they had had other priorities every year and it wasn’t until 2016 when they ready to deliver the product. Similarly, Transport Scotland pointed out that the bus operators became interested in the ABC Scheme when they saw the pilot scheme in Aberdeen was a success. Meanwhile, DCC indicated that they could not have implemented the ABC Scheme alone and they needed the bus operators to drive it forward. However, during the implementation of the scheme, DCC pointed out in the interviews that they were aware of proportion of time taken from the bus operators to work on the ABC Scheme and therefore felt the costs of the scheme were mainly “staff time” for the bus operators.

Although the pressure from Transport Scotland can be considered an enabler to implement the ABC Scheme, DCC felt it was a barrier for the bus operators because they were under pressure from Transport Scotland, stating:

“The bus operators were making all sorts of excuses like they don’t have the technological equipment and they weren’t allowed to collude with each other. Competition meant they weren’t able do this. Eventually the Scottish government said no, we want it, you’ll do it and we’ll legislate to make it happen.

Fearful of having something imposed upon them, the bus companies started moving forward and Dundee was one of the first cities to deliver it.” [Interview 3]

Transport Scotland also shared a similar view with DCC and pointed out that discussions with the bus operators were “...quite heated at times...” but the bus industry recognised that they had to demonstrate that it was being more progressive and that it was working in a collaborative way. Transport Scotland wanted to see something simple like the Oyster card in London and instructed to the bus operators that they would impose it if they didn’t implement it. Therefore, part of the motivation for the bus operators was a recognition that the relationship between the government and industry was starting to deteriorate and they had to do something to turn that around.

The smart cards for the ABC Scheme were also a barrier in some instances. For example, National Express pointed out that it was confusing at first for the bus drivers to understand how the new system worked because they had to accept other smart cards from the other bus companies on their buses. There was also an issue with understanding the process for when there was a problem with a customer’s card. Similarly, Stagecoach felt the smartcards were a barrier and that “...it can get very confusing for a driver no matter what training regime you put in place” and the business rules are very difficult are very difficult rules for the driver. Meanwhile, Transport Scotland pointed out that smart ticketing is complex because if the cards don’t work then they can’t be relied on. Furthermore, with a deregulated bus market, there is no contract between the Scottish Government and the bus operators so at any time the bus operators could walk away from a problem associated with the smart cards. They also pointed out they “don’t have that safeguard with smart ticketing” because of the deregulated market.

Tactran suggested that there is a barrier related to the economic interest of the operator. They believe bus operators are “...tightly focused on making a profit...” and that they “...sometimes can’t look outside the box”. While preparing for the ABC Scheme, they indicated that they had many “...battles...” with the bus operators over profits and an independent consultancy to calculate the profits was required. They also pointed out that they needed to negotiate with the bus operators, stating:

“We have to spend a lot of time working out their individual agendas and we had to negotiate with them so they could see the benefits of the scheme. They all wanted to get additional money out of it so we had to persuade them that an integrated ticket would bring them in more money. Growing their market by 1 or 2% isn't that interesting to them. You have to show them that they will get potentially more than that but it's hard to show that.” [Interview 5]

Furthermore, they feel they can be a restriction themselves and can undermine what the council are trying to do. Therefore, they feel that there is friction between the operators and councils because of two different viewpoints. DCC shared a similar view and indicated that their relationship with the bus operators isn't always easy because they are “...very much driven by profits and they need to make money on all their routes”. They also indicated that it is sometimes difficult to work in partnership with the bus operators, stating:

“The people of Dundee expect the council to protect them when the bus services are being curtailed or withdrawn. That is sometimes an awkward situation to be in because you're working in partnership with the bus companies but at the same time they're cutting back within reason because they're saying the routes aren't profitable and DCC don't have the money to plug the gaps.” [Interview 3]

Tactran also feel that the bus operating staff are not very good at selling services and this was a barrier for the ABC Scheme because they don't portray what the scheme represents, stating:

“They are old style bus drivers who sit there and see tickets. But in some instances, they are the first and only person you see when getting on and off a bus.” [Interview 5]

They also suggested that the key actors involved in the implementation of the ABC Scheme don't all recognise the importance of each other. They believe that it is quite difficult for “...everyone to work together in the public transport industry” while “...some

people don't want to work together..." Therefore, they feel that other schemes like the ABC Scheme can't be implemented if they "...don't work as a team".

According to Stagecoach, the barrier for a scheme like the ABC Scheme is "...always political..." in terms of commercial concerns for the bus operators and they must be weary of having a number of commercial concerns working together with their individual investment interests, stating:

"They may feel that producing this product for example may threaten what's known in the trade as existing revenue stream. So, you may have a very profitable revenue stream which is built around existing customers using single operator products and that's one of the key barriers you need to reflect on..."

[Interview 2]

A final barrier for the ABC Scheme was highlighted by DCC who indicated that there is a need to clean up the bus services in terms of air quality, especially for the Xplore Dundee fleet as they don't have any new buses. This is therefore an issue that will need to be resolved in the future to improve the buses which are part of the ABC Scheme.

7.5.3 Theoretical analysis of ABC Smart Ticketing Scheme

In line with the theoretical analysis carried out on the questionnaires and telephone interviews, this section will also analyse the results obtained in the interviews carried out with representatives from Dundee City on the ABC Smart Ticketing Scheme. The 10 variables of the decision support framework are used to analyse the results of the interviews and this in turn will help determine the barriers and enablers which have an impact on bus policy implementation. Furthermore, it will address the third research objective to help meet the aim of this thesis.

- 1. Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.*

The policy objectives of ABC Scheme appeared to be a barrier because the objectives for the bus operators were different to those of Transport Scotland. The bus operators are

very much driven by profits and were reluctant to be involved in the scheme. However, Transport Scotland wanted to see something simple like the Oyster card in London and instructed the bus operators that they would impose it if they didn't implement it. Therefore, it is evident that both the bus operators and Transport Scotland had different objectives for the ABC Scheme and the bus operators were somewhat forced to be part of the scheme.

As previously mentioned, the scheme encountered a delay due to the written policy in place when contracts were being made with the lawyers and legal team for the scheme. National Express pointed out that "...the Scottish laws are so different to the English laws..." This barrier is likely to be a result of the VPA in place and in line with the commitment by all major operators in the UK to various government bodies to deliver smart ticketing. The concept of a VPA is contained within the Bus Services Act in England, however the Scottish Government is currently considering these in the context of Scottish legislation. Therefore, the VPA for the ABC Scheme had less structure than if it was a VPA proposed in England – it has no legislative basis.

The case study has also revealed that Dundee City currently does not have a bus strategy or a bus policy document in place for the past 17 years but refer to the RTS produced by Tactran. There was consensus amongst those interviewed that these documents are less important and are not required for the delivery of the ABC Scheme. Therefore, a lack of these documents was not identified as a barrier for the ABC Scheme.

In terms of setting and monitoring of targets, a desktop review and the interviews revealed limited information about the monitoring or targets in place for the scheme. However, the scheme did reveal that there are key areas of the scheme which are measured. This unclear link between policy objectives, measures and the setting and monitoring of targets may be a result of the VPA in place which involves no contracts between the bus operators and Transport Scotland.

- 2. Availability of resources: Resources such as financial support are important; however, where resources are limited, it is necessary to maximise the use of available resources.***

Several examples of the availability of resources as a barrier were identified in this case study. Firstly, the availability of resources was a barrier for the bus operators because they received a lot of requests from politicians, local government bodies and from the wider environment. Although they had the technology and money in place, they struggled with prioritising their resources and finding the time to deal with requests from the various bodies. The bus operators also pointed out that due to works being carried out in terms of road maintenance, they had to put extra resources in place which were “...astronomical...” and this compounded their challenges. Meanwhile, the bus operators had made the most financial investments in comparison to other stakeholders involved in the scheme and Transport Scotland provided very little funding to the scheme even though they imposed it on the bus operators.

The availability of resources also appeared to be a barrier due to a lack of knowledge, advertisement and marketing around the scheme. It was found that information provided about the ABC Scheme were different on the DCC website, Stagecoach website and the Travel Dundee website which is then confusing for customers. Meanwhile, the sales of tickets have plateaued which may be because of poor advertising and marketing. Therefore, the scheme requires further improvements in these aspects.

3. Intra-organisation support and communication: Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.

Intra-organisation support and communication was a barrier in terms of understanding the ABC ticket product. Stagecoach pointed out the new product was particularly confusing for the bus drivers. They also pointed out that they were required to spend more time with the smaller operators advertising them on how to upgrade the product and deliver the product. However, Stagecoach indicated that across the UK, it is impossible to deliver this because there are so many stakeholders who require their help and it is then very confusing for the bus drivers no matter what training regime is put in place. Although intra-organisation and communication can be a barrier in this instance, Stagecoach did however indicate that there needs to be a specialist level of staff in what they can support and the priority with which their group or product can assign things to them. However,

they are experiencing increasing demands internally and from bus operators across the UK. It would therefore appear that there is support for bus operators in the UK on the general concept of the smart ticketing product, however there is a lack of support within the companies on more complex issues with the product which can be seen as a barrier for the bus drivers who have difficulty using them.

4. Characteristics of organisations: Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).

The characteristics of the organisations involved was a barrier in this case study, particularly for the bus operators. This included internal efforts and time by the bus operators to deliver the scheme and especially from the policy champions, both of whom are smart ticketing specialists and worked at National Express. It was also evident from the interviews that not everyone involved fully understood smart ticketing and this was particularly a barrier for bus drivers. It was also found that, prior to the scheme, the bus operators were reluctant to be involved and to invest their time and effort. This meant the scheme started later than anticipated as required the involvement of the bus operators. Therefore commitment, competency and workload of staff were key barriers for the implementation of the ABC Scheme.

5. Economic, social and political environments: Current and future economic, social and political environments play an important role on the outcome of the policy process.

Economic environments played an important role on the outcome of the ABC Scheme. This scheme was one of several pilot schemes as part of Transport Scotland's vision to introduce smarter travel across Scotland. Dundee City was chosen to carry out a pilot study because there is a reasonably small number of operators with a good operating environment in place and the city is isolated in terms of the zones involved. Therefore, Aberdeen was an ideal pilot before moving to "more challenging environments" in Glasgow and Edinburgh which are bigger cities.

In contrast to the economic environment, the social environments was a barrier for the ABC Scheme. The case study revealed that some bus operators have created this problem because they don't all agree that there are benefits to using the scheme. It was discovered in the interviews that there is a negative perception of how some bus drivers communicate with customers availing of the scheme. Perhaps the reason for this is that bus drivers still don't fully understand the benefits of the scheme and therefore there is a learning curve in that respect.

Similar to social environments, political environments were also seen as a barrier for the ABC Scheme. This was particularly the case for the bus operators because they have their own commercial concerns and there was a danger that the ABC product would threaten existing revenue stream. For example, if they have a very profitable revenue stream built around existing customers using single operator products. However, the bus operators had little choice in the matter as Transport Scotland imposed this scheme on them. Therefore, the plans and ambitions of National government bodies be political in this instance.

6. Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.

This case study has revealed that there were two key policy champions for the implementation of the ABC Scheme, both of whom are smart ticketing specialists and worked at National Express. These policy champions had the willingness and drive to make it happen and to be the first such scheme in Scotland. While the ABC Scheme was a government initiative, they felt the bus operators were able to take the lead and deliver the scheme. The policy champions were particularly important for this scheme as DCC pointed out, they could not have implemented it on their own. It was also revealed that the bus operators weren't seeking support from DCC and were willing to do it themselves with the support of their policy champions.

7. Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.

The case study revealed limited bureaucratic power or hierarchical control and therefore this is identified as a less significant implementation barrier. However, National Express pointed out that when a road maintenance five-year plan gets accelerated, the council can start digging up roads which then creates "...havoc..." for the bus operators and the bus services in place. Another example of bureaucratic power was identified when the ABC Scheme came about because of it being imposed by Transport Scotland. The bus operators were reluctant to be involved in the scheme but with the power of Transport Scotland, they were somewhat forced to be a part of it. This was also summarised by DCC on what Transport Scotland said to the bus operator's – "you implement this or we will impose it upon you".

8. Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.

Collaboration and interaction between those involved in the ABC Scheme was key for successful implementation. As soon as the vision was released from the Scottish Government to implement smart ticketing, there was a willingness from the parties involved to deliver it. The ambitions for the scheme were captured by Transport Scotland and DCC and this was evident through the number of stages which were set out to deliver the scheme. However, Transport Scotland and DCC could not have delivered the scheme without the support of the bus operators. The case study revealed that there was a reasonable amount of consultation and engagement with the stakeholders and this helped to build a relationship between the parties involved. This was an important part of delivering the scheme as it ensured a common understanding and scope on what was to be delivered.

9. Policy remodelling: Limited changes to the policy should occur from the design stage right through to the implementation stage.

The key changes which occurred during the ABC Scheme included the introduction of smart, integrated and interoperable ticketing. However, limited changes to the policy oc-

curred once the product was introduced. This in turn can be an enabler for the implementation of the scheme because it was decided from the beginning how the scheme would be implemented and it was completed without significant changes.

10. Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

Opposition, conflict and ambiguities were identified as barriers for the implementation of the ABC Scheme. While DCC and the bus operators collaborated and interacted, there were many examples of conflict and ambiguities provided in the interviews. The bus operators have different expectations for the scheme as they are a commercial business and driven by profits. They feared that they would sell existing travel to existing passengers at a slightly cheaper price but there would be no future growth. This resulted in heated discussions between the bus operators and DCC. Meanwhile, part of the motivation for the scheme was due in part to perceptions of a deteriorating relationship between the government and industry and the need to turn this around. Further conflict was identified between both DCC and the bus operators related to profits and road maintenance organised by DCC that affected bus services.

Both local and national elections were barriers for the implementation on the ABC Scheme and this resulted in the scheme being delayed and it has not yet moved onto the proposed stage 2 due to these elections. The case study also suggests councillors will only discuss the successful parts of the scheme due to the publicity attached to it and the public are unaware of the unsuccessful parts of the scheme.

Meanwhile, conflict between the bus operators involved was avoided in this scheme because DCC acted as an 'honest broker' as the bus operators are not allowed to speak to each other over uncompetitive practices. Bus wars and public opposition were also not identified as barrier for the implementation of the ABC Scheme and it appeared people in Dundee welcomed the scheme.

7.5.4 Summary of case study 4

The fourth and final case study has examined the ABC Multi-Operator Smart Ticketing Scheme in Dundee. To help understand the success of the scheme, the barriers and enablers were identified by carrying out a theoretical analysis using the decision support framework. Seven variables of the framework identified the barriers to the scheme which include policy objectives, policy resources, intra-organisation support and communication, characteristics of organisations, social and political environments, bureaucratic power and opposition, conflict and ambiguities. In contrast to these seven variables of the framework, two variables identified the enablers which helped to implement the scheme. These include policy champions, and collaboration and interaction between those involved in the policy process. Also, a lack of policy remodelling can be seen as an enabler for the implementation of the scheme. Overall, the ABC Scheme is an example of successful implementation, however given the scheme is still quite recent, further monitoring is required to determine its future.

7.6 Conclusion

This chapter has presented the findings from interviews conducted with industry representatives based on four case studies within the UK. The four case studies include the Quality Contract Scheme in Tyne and Wear, the Fastlink Scheme in Glasgow, a Bus Priority Scheme in Solihull and a Smart Ticketing Scheme in Dundee. The decision support framework was used to analyse the interviews and this in turn helped to determine the barriers which have an impact on bus policy implementation in the UK. Furthermore, this chapter has addressed the third research objective to help meet the aim of this thesis. Table 7.15 below provides a summary of the key barriers and enablers identified in the four case studies.

The four case studies were analysed using elements of the decision support framework which were then divided into high, medium and low impacts. Five elements of the framework were rated as a high impact. Four of these elements were rated as high impact barriers including policy objective, characteristics of organisations, economic, social and political environments and opposition, conflict, and ambiguities. One element of the framework was rated as a high impact enabler – that of policy champions. Next, four elements of the framework were rated as medium barriers: availability of resources, intra-

organisation support and communication, and policy remodelling. One element of the framework was rated as a medium impact enabler: collaboration and interaction between those involved in the policy process. Finally, one element of the framework was rated as a low impact: this was bureaucratic power.

Table 7.15: Synthesis of case studies using decision support framework

Variable	Barrier				Enabler				Impact
	CS 1	CS 2	CS 3	CS 4	CS 1	CS 2	CS 3	CS 4	
1- Policy objective	√	√	√	√					Barrier: All four case studies revealed an unclear link between designing the policy, setting targets and suitable measures to achieve those targets, and monitoring those targets for implementation.
2- Availability of resources	√	√		√			√		Barrier: (1) CS1: QCS was financially unsustainable and rejected by Traffic Commissioner. (2) CS2: delays in obtaining funding; delays with delivery of scheme. (3) CS4: bus operators struggled to prioritise resources and deal with requests from various bodies; bus operators made most financial investments; lack of knowledge, advertisement and marketing around scheme. Enabler: (1) CS3: Solihull MBC maximised the use of available funding; underspend within the GBSLEP's Local Growth Fund programme for 2015/16.
3- Intra-organisation support and communication	√	√		√			√		Barrier: (1) CS1: Nexus made “changes along the way” and “some mistakes” were made by their consultants. (2) CS2: SPT don't have internal expertise or full powers for regulation in comparison to bus operators; bus operators don't have enough staff to look at radical plans to put in integrated transport systems. (3) CS4: lack of support within bus companies on complex issues with ABC product; bus drivers have difficulty using product. Enabler: (1) CS3: organisations worked together for a number of years and carried out a series of bus network reviews across region.

<p>4- Characteristics of organisations</p>	√	√	√	√				<p>Barrier: (1) CS1: Took a year to educate 3 people on work done in 5 years; small firm with small legal team and economic advisers (Nexus); bus operators commercially minded working against QCS case; size and competency of staff (Nexus). CS2: extra workload created stress for the staff; size of scheme; level of public engagement. (3) CS3: workload of staff; scheme working simultaneously instead of sequentially; competency of staff; priorities of staff. (4) CS4: internal efforts and time by the bus operators to deliver the scheme; bus operators incompetent with understanding smart ticketing; bus operators reluctant to be involved meant the scheme started later than anticipated.</p>
<p>5- Economic, social and political environments</p>	√	√	√	√				<p>Barrier: (1) CS1: Nexus could not prove its affordability and value for money; QCS proposal indicated that it would not extend to Durham and Northumberland; NECA area was unable to decide on election of new mayor. (2) CS2: image problem associated with using bus; competition between buses and rail; less press coverage to encourage bus usage. (3) CS3: negative perception from drivers; lack of political support around understanding bus policy, uncertainty about what the council is trying to achieve, and reviewing bus lanes. (4) CS4: bus operators don't all portray benefits of using scheme; negative perception of how some bus drivers communicate with customers; danger that ABC product would threaten existing revenue stream of bus operators; Transport Scotland imposed scheme on bus operators.</p>
<p>6- Policy champions</p>					√	√	√	<p>Enabler: (1) CS1: Go North East and Stagecoach were policy champions who saw the case follow through from beginning to end. (2) CS2: SPT were the policy champions and were committed and willing to work with other stakeholders involved. (3) CS3: One key policy champion from Solihull MBC who was responsible, competent, motivated and wanted to drive change. (4) Two key policy champions from National Express who had willingness and drive to implement scheme.</p>

7- Bureaucratic power	√			√		√	√	<p>Barrier: (1) CS1: bus operators didn't want to share data with Nexus because it adds another layer of bureaucracy. (2) CS4: road maintenance five year plan creates "...havoc..." for the bus operators and the bus services in place.</p> <p>Enabler: (1) CS2: limited evidence of bureaucratic power. (4) CS3: limited evidence of bureaucratic power.</p>
8- Collaboration and interaction between those involved in the policy process	√					√	√	<p>Barrier: (1) CS1: Relationship between Nexus and bus operators was "damaged"; bus companies were unwilling to share data.</p> <p>Enabler: (1) CS2: Collaboration with locals who supported development, political buy-in, public transport agencies and operators. (2) CS3: TfWM provided Solihull MBC with data; Atkins worked with TfWM on initial feasibility and preliminary design; Solihull MBC engaged with JLR about site; National Express shared data with Centro to carry out monitoring and evaluation; Solihull MBC collaborated with TfWM to deal with customers and general queries. (3) CS4: Consultation and engagement with the stakeholders.</p>
9- Policy remodelling	√	√	√				√	<p>Barrier: (1) CS1: Nexus made changes during scheme proposal. (2) CS2: Changes required due to feedback from public. (3) CS3: Changes include removal of cycle lanes, repairs to the canal bridge on Lode Lane and adjustments to the TRO at Ratcliffe House.</p> <p>Enabler: (1) CS4: Decided from the beginning how scheme would be implemented and completed without significant changes.</p>
10- Opposition, conflict, and ambiguities	√	√	√	√				<p>Barrier: (1) CS1: TWPTUG supported the scheme but strongly opposed the opinions of the bus operators; opposition from public; breakdown in the relationship between Nexus and bus operators. (2) CS2: delays to scheme resulted in opposition; public concerned over appropriateness of cost of scheme; lack of local government interest and support. (3) CS3: public opposition; lack of government interest and support. (4) CS4: bus operators had different expectations to DCC. Local and national elections delayed scheme.</p>

Note: CS refers to case study. Yellow = high impact; orange = medium impact, green = low impact.

1. Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.

Overall there were varying results from the different case studies in relation to policy objectives, and no clear evidence that a written bus policy document is essential for implementation. In CS1 (the QC attempt by Nexus), the policy document (the 2012 Bus Strategy) was important in helping to justify the application by Nexus for Quality Contract powers. On the other hand, since then, the strategy has not been updated and there was a general lack of data showing progress against its targets. CS2 (Glasgow Fastlink) found that the original scheme was related to policy objectives, but that there is a lack of monitoring in place and the ‘Fastlink Route Performance Report’ published in 2015 was the last time such monitoring took place and no further monitoring reports have been published since then, which some interviewees found to be a barrier to scheme acceptance. CS3 (the Lode Lane bus priority scheme in Solihull) revealed that it was difficult to translate some policies into practice because of a lack of political support to help deliver the scheme (which relates to point 5 in this framework). This may have been because there was a lack of bus policy documents in place to support the LLRE schemes and that the scheme was instead supported in terms of an economic development policy context, not specifically a transport or bus policy context. Meanwhile, the scheme does not set specific targets, but its monitoring appears to be successful. Finally, CS4 indicated that the policy objectives of the ABC Scheme appeared to be a barrier because the objectives for the bus operators were different to those of Transport Scotland and the bus operators were somewhat forced to be part of the scheme (showing the importance of agreement on the objectives, although also showing that this is not an insurmountable barrier). Overall, the case studies revealed an unclear link between designing the policy, setting targets and suitable measures to achieve those targets, and monitoring those targets for implementation, and they showed clearly that a scheme did not have to be in a policy document, or even aligned with a policy document’s objectives, for it to be implemented.

2. Availability of resources: Resources such as financial support are important; however, where resources are limited, it is necessary to maximise the use of available resources.

Three out of the four case studies identified availability of resources as a barrier. CS1 revealed that in the opinion of the bus operators the QCS was financially unsustainable, would cost the local tax payer a huge amount of money with no real benefits, and involve issues in the future in terms of pension liabilities. Therefore, the scheme was rejected by the Traffic Commissioner. CS2 indicated that there were delays in obtaining funding which then resulted in delays with the delivery of the scheme. CS4 revealed that the bus operators struggled to prioritise their resources and finding the time to deal with requests from various bodies. Meanwhile, the bus operators had made the most financial investments in comparison to other stakeholders involved in the scheme. It was also found that there was a lack of knowledge, advertisement and marketing around the scheme. In contrast to these three case studies, CS3 indicated resources were an enabler to implement the LLRE Scheme because Solihull MBC maximised the use of available funding and the underspend within the GBSLEP's Local Growth Fund programme for 2015/16 was also helpful.

3. Intra-organisation support and communication: Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.

Three out of the four case studies identified intra-organisation support and communication as a barrier. CS1 indicated that some errors were made by Nexus in their preparation of the case for the Quality Contract where they made “changes along the way”, had “weaker parts” of their case and “some mistakes” made by their consultants. They were also challenged by a relative lack of staff capacity to plan the business case for the QCS. Meanwhile, the bus operators had the financial and legal support and the communication resources to work against Nexus and to find flaws in the case for the QCS. CS2 found that SPT do not have as much internal expertise as the bus operators, but it was also found that the current framework in place isn't working and the bus operators don't have enough staff to look at radical plans to put in integrated transport systems. Finally, CS4 suggests there is support for bus operators in the UK on the general concept of the smart ticketing product, however there is a lack of support and capacity within the companies on dealing with the more complex issues with the product. In contrast to these case studies, CS3 revealed that prior to LLRE Scheme, the organisations involved worked together well for

a number of years and carried out a series of bus network reviews across the region., implying that this pre-existing communication was an enabler for the LLRE scheme. Overall, the case studies show that intra-organisational support and communication are clearly very important enablers for implementation.

4. Characteristics of organisations: Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).

All four case studies revealed the characteristics of organisations as a barrier. CS1 indicated that it took Nexus a year to educate 3 people on work they had done in the past 5 years. They also indicated that a key reason for why they failed to meet the requirements of the QCS was due to being a “small firm with a small legal team and economic advisers.” Meanwhile, they felt that the bus operators had staff who were “commercially minded” and worked against their case for a QCS. Size and competency of staff within Nexus was also raised as an issue. CS2 revealed that SPT experienced extra workload and this created stress for the staff. The size of the scheme and the level of engagement with the public transport authority and the operators was also identified as a barrier. CS3 indicated the workload of staff was a barrier as the scheme was brought forward and therefore worked simultaneously instead of sequentially. Staff were faced with time limitations to prepare the scheme and were under pressure to complete various stages of the business case. Competency of staff and priorities of staff were also raised as an issue. Similarly, CS4 revealed that the internal effort and time required by the bus operators to deliver the scheme were seen as a barrier. It was also found that not everyone involved fully understood smart ticketing and this was particularly a barrier for bus drivers. Meanwhile, prior to the scheme, the bus operators were reluctant to be involved which meant the scheme started later than anticipated.

5. Economic, social and political environments: Current and future economic, social and political environments play an important role on the outcome of the policy process.

All four case studies revealed economic, social and political environments as a barrier. CS1 indicated economic barriers were evident when the QCS Board rejected the scheme

because Nexus could not prove its affordability and value for money. Social barriers were evident where the QCS proposal indicated that it would not extend to Durham and Northumberland and political barriers were evident when the NECA area was unable to decide on the election of a new mayor. CS2 revealed that there were social barriers due to an image problem associated with using the bus, competition between buses and rail and less press coverage to encourage bus usage. CS3 revealed economic conditions were helpful to deliver the LLRE Scheme as Solihull has the most productive economy in the Midlands. However, social environments were a barrier due to a negative perception from drivers when the scheme was introduced. Political environments were also a barrier due to a lack of political support around understanding bus policy, uncertainty about what the council is trying to achieve and a lack of support to keep under constant review enforced bus lanes. Finally, CS4 revealed that economic environments were helpful to implement the ABC Scheme due to the small number of operators with a good operating environment. In contrast to this, social environments were seen as a barrier where bus operators don't all market the benefits of using the scheme and there is negative perception of how some bus drivers communicate with customers availing of the scheme. Finally, political environments were a barrier for the bus operators because they have their own commercial concerns and there was a danger that the ABC product would threaten existing revenue stream. However, the bus operators had little choice in the matter as Transport Scotland imposed this scheme on them.

6. Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.

All four case studies highlighted the importance of the role of policy champions and how they enabled the schemes to succeed, or not succeed as seen in CS1. CS1 revealed that both Nexus and the bus operators worked equally hard when dealing with the QCS inquiry, however it was the bus operators who saw the case follow through from beginning to end which included Go North East and Stagecoach. CS2 indicated that SPT were the policy champions for the Fastlink Scheme and they were committed and willing to work with the other stakeholders involved. CS3 revealed a key policy champion from Solihull MBC played an important role in implementing the LLRE Scheme. This champion was

identified as responsible, competent, motivated, and wanted to drive change. Finally, CS4 revealed the ABC scheme had two key policy champions from National Express. These policy champions had the willingness and drive to implement the scheme and be the first in Scotland to happen from scratch.

7. Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.

Two case studies revealed bureaucratic power as a barrier. CS1 indicated that the bus operators didn't want to share data with Nexus because "it also adds another layer of bureaucracy with meetings and the bus companies aren't used to that exposure". Meanwhile, CS4 revealed that when a road maintenance five year plan gets accelerated, the council can start digging up roads which then creates "...havoc..." for the bus operators and the bus services in place. The bus operators were also reluctant to be involved in the scheme but Transport Scotland had the power to enforce the scheme upon them. In contrast to these case studies, CS2 and CS3 revealed limited evidence of bureaucratic power and therefore could be considered an enabler as it did not have a negative impact on the implementation of the schemes involved.

8. Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.

CS1 revealed that collaboration and interaction between those involved in the policy process were key barriers for the QCS. This was particularly noticeable when Nexus said the relationship between themselves and the bus operators was "damaged" during the QCS process. Furthermore, they stated that the bus companies were unwilling to share data and this in turn prevented the scheme from being implemented. In contrast to this, three case studies revealed collaboration and interaction between those involved in the policy process were enablers to implement the schemes involved. CS2 indicated that collaboration with locals who supported the development, political buy-in, partnerships working with

the public transport agencies (the roads authority) and the operators was “absolutely crucial”. The bus operators had a “good relationship” with the staff at SPT and this helped the scheme to succeed. Similarly, CS3 revealed TfWM supported Solihull MBC with data, Atkins worked with TfWM on the initial feasibility and preliminary design, Solihull MBC were proactive in engaging with JLR about their site and the National Express shared their data with Centro to carry out monitoring and evaluation of the scheme which in turn avoided incurring additional costs. Solihull MBC also collaborated with TfWM to help deal with customers and general queries along the way. Finally, CS4 revealed that there was a reasonable amount of consultation and engagement with the stakeholders and this helped to build a relationship between the parties involved. This was an important part of delivering the scheme as it ensured a common understanding of what was to be delivered.

9. Policy remodelling: Limited changes to the policy should occur from the design stage right through to the implementation stage.

Three case studies revealed policy remodelling as a barrier. CS1 revealed Nexus made changes which made the bus operators believe Nexus were “plugging the gaps” as they went along and developed a new plan for the scheme. The general public did not welcome changes and this was a barrier for during the QCS proposal because “nobody likes changes” and “there’s a natural resistance to change”. CS2 indicated SPT made several changes to the scheme based on the feedback from the public to help improve the scheme. CS3 revealed that changes included the removal of cycle lanes, repairs to the canal bridge on Lode Lane and adjustments to the TRO at Ratcliffe House. Meanwhile a proposal was put to JLR for the transfer of some land adjacent to the highway for the scheme, however they could not agree terms on the cost of the purchase and the scheme was therefore amended. It was also established that the scheme was passed onto other members with different roles during the implementation process. In contrast to these case studies, CS4 revealed policy changes were an enabler for the scheme because it was decided from the beginning how the scheme would be implemented and it was completed without significant changes.

10. Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

All four case studies revealed opposition, conflict and ambiguities as a barrier for the implementation of the schemes. CS1 indicated that the Tyne and Wear PTUG supported Nexus and were in favour of the scheme, however they strongly opposed the opinions of the bus operators. Opposition from the general public was mixed because people were not fully aware of the reasons for the scheme. It was also revealed that there was a “serious breakdown in the relationship” between Nexus and the bus operators which prevented the QCS from being implemented. CS2 revealed that delays to the scheme resulted in public opposition and opposition from hospital staff. The general public also expressed concerns over the appropriateness of spending a large amount of money on a busway that is relatively lightly used. Meanwhile, the case study revealed a lack of local government interest and support was a barrier. Similarly, CS3 identified public opposition as a key barrier due to the cutting down of trees, getting access to various locations and TROs to stop vehicles going into properties of residents. In terms of political power, it was also noted that too few politicians and decision makers use the bus and this can create an obstacle as they are focused on the wrong priorities. Finally, CS4 revealed conflict and ambiguities were barriers because the bus operators had different expectations for the scheme as they are a commercial business and driven by profits and this resulted in heated discussions with DCC. Further conflict was identified between both DCC and the bus operators related to profits and road maintenance. Both local and national elections were also barriers for the scheme and this resulted in the scheme being delayed.

Chapter 8: Theoretical synthesis and discussion

8.1 Introduction

This chapter will present the findings from the three main sources of data collected. This includes the theoretical analysis of the questionnaires, telephone interviews and case studies. The theoretical analysis was based on the application of the decision support framework to the three sets of data, separately. The three sets of data will now be triangulated and analysed again using elements of the framework which are then divided into high, medium-high, medium-low, and low impacts. As previously mentioned, triangulation is important for verification and increases validity by incorporating the various methods used in this research.

This chapter will also discuss the overall results from this research and will carry out further triangulation by combining the findings from the literature review with the theoretical analysis of the three sets of data. The overall results identified in this chapter will address the fourth research objective to help meet the aim of this thesis. For ease of reference, the fourth research objective is addressed in table 8.1. Finally, this chapter will discuss the results in relation to the “real world” applicability for policy makers and planners.

Table 8.1: Fourth research objective

Research Objective	
4	To build on theoretical literature and current views and experiences of key players/stakeholders to help improve the implementation of bus policy at a local level.
	This objective draws on the results from the literature review and empirical analysis in order to obtain insights into current bus policy implementation and associated challenges. This includes theoretical analysis of the data collected to identify the key barriers to bus policy implementation at a local level in Great Britain.

8.2 Theoretical synthesis of results

Table 6.3 presented a summary of the theoretical analysis of the questionnaires and telephone interviews. Each element of the decision support framework was divided into high,

medium, and low impacts. This technique helped to measure the impact of each element of the framework and to identify the key barriers associated with the implementation of bus policy at a local level. Four elements of the framework were rated as a high impact. These include: policy objective; availability of resources; intra-organisation support and communication; and characteristics of organisations. Three elements of the framework were ranked as a medium impact: economic, social and political environments; collaboration and interaction between those involved in the policy process; and opposition, conflict, and ambiguities.

As previously mentioned in chapter 7 of this thesis, the case studies were included in this research to complement the findings from the questionnaires and telephone interviews and in turn help inform the research questions. Furthermore, the case studies were selected due to their comparability since they include the same phenomenon under investigation (the implementation of bus policy) and follow similar transport policy frameworks (Scotland and England) (Yin, 1994 p.13). Table 7.15 presented a summary of the theoretical analysis of the case studies to identify the key barriers associated with the implementation of bus policy at a local level. Two elements of the framework were rated as a high impact, including policy objective and the characteristics of organisations. Four elements were rated as a medium-high impact including: availability of resources; intra-organisation support and communication; economic, social and political environments; and opposition, conflict, and ambiguities. Meanwhile, three elements were rated as a low-medium impact including: bureaucratic power; collaboration and interaction between those involved in the policy process; and policy remodelling.

Table 8.2 presents the overall theoretical synthesis of the three sets of data to determine which barriers have the greatest and least impact on the implementation of bus policy at a local level in Great Britain. Based on the results, each element in the framework was ranked as high, medium-high, medium-low, or low. It was found that the results from the three sets of data remained relatively consistent throughout the data collection process and there were no major changes when analysing the results. For example, there were no cases of an element of the framework changing from a 'high' impact to 'low' impact barrier. Instead it would have remained as a 'high' impact barrier or changed to 'medium-

high'. However, this is a qualitative ranking by the author not intended for robust application but merely for ease of presenting and discussing the results.

The overall results show that two elements of the framework were rated as a high impact, including policy objective; and the characteristics of organisations. Four elements were rated as a medium-high impact including: availability of resources; intra-organisation support and communication; economic, social and political environments; and opposition, conflict, and ambiguities. Meanwhile, three elements were rated as a low-medium impact including: bureaucratic power; collaboration and interaction between those involved in the policy process; and policy remodelling. Finally, one element of the framework was rated as a low impact barrier which includes policy champions.

Table 8.2: Theoretical synthesis of questionnaires, telephone interviews and case studies

Variable	Barriers			Overall Impact
	Online Questionnaire	Telephone Interviews	Case Studies	
1- Policy document	18% of local authorities do not have a specific bus policy document in place. "Coherence and comprehensibility of the written policy" was identified as one of the greatest barriers to implementation.	Most officers said they do not have a specific bus policy in place. All agreed it is important to have a policy document in place. The majority felt that, related closely to the policy document, it was important to have monitoring in place to achieve bus policy measures. They felt that policy measures would be implemented as planned and without problems if stricter monitoring were in place.	All four case studies revealed an unclear link between designing the policy, setting targets and suitable measures to achieve those targets, and monitoring those targets for implementation.	High
2- Availability of resources	Ranked as the greatest barrier to implementation. "Limited funding" identified as a key barrier.	Ranked the greatest barrier to implementation. Lack of resources prevented councils from meeting targets.	CS1: QCS was financially unsustainable and rejected by Traffic Commissioner. CS2: Delays in obtaining funding and delays with delivery of scheme. CS4: Bus operators struggled to prioritise resources and deal with requests from various bodies. Also made most financial investments. Lack of knowledge, advertisement and marketing around scheme. CS3: Solihull MBC maximised the use of available funding but still ensuring that it was in place was challenging.	Medium-High

<p>3- Intra-organisation support and communication</p>	<p>Ranked fourth highest barrier to implementation.</p>	<p>Half of the officers said communication was a barrier to implementation. A broad range of communication barriers was highlighted including between neighbouring authorities, bus operators, stakeholders, politicians and the public.</p>	<p>CS1: Nexus made “changes along the way” and “some mistakes” were made by their consultants. CS2: SPT don’t have internal expertise or full powers for regulation in comparison to bus operators. Bus operators don’t have enough staff to look at radical plans to put in integrated transport systems. CS4: Lack of support within bus companies on complex issues with ABC product. Bus drivers have difficulty using product. CS3: Organisations worked together for several years and carried out a series of bus network reviews across region.</p>	<p>Medium-High</p>
<p>4- Characteristics of organisations</p>	<p>Ranked as the second highest barrier to implementation. 15 officers could not indicate the number of teams within the council's transport department who have responsibility for the implementation of bus policies.</p>	<p>Most officers did not agree this was one of the greatest barriers. However, staffing difficulties such as shortage of staff or over-worked staff was raised on several occasions. Two officers did not know the number of teams responsible for implementation of bus policies.</p>	<p>CS1: Took a year to educate 3 people on work done in 5 years. Small firm with small legal team and economic advisers (Nexus). Bus operators commercially minded working against QCS case. CS2: Extra workload created stress for the staff. Size of scheme and level of public engagement an issue. CS3: Workload, competency and priorities of staff a barrier. Scheme worked simultaneously instead of sequentially. CS4: Internal efforts and time by the bus operators to deliver the scheme an issue. Bus operators had an incomplete understanding of smart ticketing. Reluctant to be involved meant the scheme started later than anticipated.</p>	<p>High</p>

<p>5- Economic, social and political environments</p>	<p>Officers identified key barriers in their area as "bus wars between operators"; "political will of members"; "physical space and layout of roads" and "high car ownership."</p>	<p>Barriers include political constraints and support (or lack of it), the impact of neighbouring authorities, current economic climate and public opposition.</p>	<p>CS1: Nexus could not prove its affordability and value for money. QCS would not extend to Durham and Northumberland. NECA area was unable to decide on election of new mayor. CS2: Image problem associated with using bus. Competition between buses and rail. Less press coverage to encourage bus usage. CS3: Negative perception from drivers. Lack of political support around understanding bus policy. Uncertainty about what the council is trying to achieve, and reviewing bus lanes. CS4: Bus operators don't portray benefits of using scheme. Negative perception of how some bus drivers communicate with customers. Danger that ABC product would threaten existing revenue stream of bus operators. Transport Scotland imposed scheme on bus operators.</p>	<p>Medium-High</p>
<p>6- Policy champions</p>	<p>Ranked as having a lesser impact on implementation.</p>	<p>Four officers did not agree with the questionnaire that this had a lesser impact on implementation. Several examples of how competent and motivated staff can have an impact on other staff involved in the policy process.</p>	<p>CS1: Go North East and Stagecoach were policy champions who saw the case through from beginning to end. CS2: SPT were policy champions and were committed and willing to work with other stakeholders involved. CS3: One key policy champion from Solihull MBC who was responsible, competent, motivated and wanted to drive change. CS4: Two key policy champions from National Express who had willingness and drive to implement scheme.</p>	<p>Low</p>

7- Bureaucratic power	Ranked as having a lesser impact on implementation.	Three officers did not agree with the questionnaire that this had a lesser impact on implementation. One officer indicated that there needs to be a “one council approach” instead of several departments because they had many instances of departments not telling each other everything and scowling with each other over resources.	CS1: Nexus has limited evidence when preparing the QCS. CS4: Road maintenance five year plan creates “havoc” for the bus operators and the bus services in place. CS2: Limited evidence of bureaucratic power. CS3: Limited evidence of bureaucratic power.	Medium-Low
8- Collaboration and interaction between those involved in the policy process	Ranked as having a lesser impact on implementation.	Most officers highlighted the importance of the interaction between the councils and bus operators and felt it was "key" to have "a good strong partnership arrangement"	CS1: Relationship between Nexus and bus operators was “damaged”. Bus companies were unwilling to share data. CS2: Enabler included collaboration with locals who supported development, political buy-in, public transport agencies and operators. CS3: TfWM provided Solihull MBC with data. Atkins worked with TfWM on initial feasibility and preliminary design. Solihull MBC engaged with JLR about site. National Express shared data with Centro to carry out monitoring and evaluation. Solihull MBC collaborated with TfWM to deal with customers and general queries. CS4: Consultation and engagement took place with the stakeholders.	Medium-Low

9- Policy remodelling	Ranked as having a lesser impact on implementation.	One officer said policy change prevented their council implementing policy measures. Another officer said partners and stakeholder working groups are key so that policy does not change during implementation.	CS1: Nexus made changes during scheme proposal. CS2: Changes required due to feedback from public. CS3: Changes include removal of cycle lanes, repairs to the canal bridge on Lode Lane and adjustments to the TRO at Ratcliffe House. CS4: Decided from the beginning how scheme would be implemented and completed without significant changes.	Medium-Low
10- Opposition, conflict, and ambiguities	Ranked as having a lesser impact on implementation. Some officers identified key barriers in their area as "bus wars between operators," "public opinion influencing outcomes."	Barriers include conflict and ambiguities between councils and the public, local bus operators who competed with each other, and neighbouring councils who were fighting amongst each other for budgets.	CS1: TWPTUG supported the scheme but strongly opposed the opinions of the bus operators. Opposition from public. Breakdown in the relationship between Nexus and bus operators. CS2: Delays to scheme resulted in opposition. Public concerned over appropriateness of cost of scheme. Lack of local government interest and support. CS3: Public opposition and lack of government interest and support. CS4: Bus operators had different expectations to DCC. Local and national elections delayed scheme.	Medium-High

Note: CS refers to case study; Darker red = higher impact; Lighter red = lower impact

1. Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.

All three sets of data revealed that there are good reasons to argue that a written bus policy document should be in place to implement bus policy at a local level. The officers who completed the questionnaires identified “coherence and comprehensibility of the written policy” as one of the greatest barriers to implementation. On the other hand, the same questionnaire found that 18% of local authorities do not have a specific bus policy document in place. The telephone interviews also revealed similar issues: whilst most officers interviewed said they did not have a specific bus policy document in place, they all agreed that it is important to have this document in place. The officers noted the importance of this document in terms of communicating with local stakeholders and politicians, understanding of what they need to achieve, dealing with conflict from the public and politicians who might have a different perception on a particular policy, and a way to identify key milestones to be achieved. However, there are no sanctions and no drive for this document to be in place. Meanwhile, this lack of a local bus policy document in many authorities is most likely linked to the abolition of the requirement for a separate bus strategy in the 2008 Local Transport Act. On the other hand, despite the importance placed on the policy document by the officers interviewed, the case studies revealed that a scheme did not have to be in a policy document for it to be implemented. For example, Solihull MBC (CS3) does not have a specific bus strategy or bus document in place, while Dundee City has not had a bus strategy or a bus policy document in place for the past 17 years.

In terms of policy objectives, the questionnaires revealed that officers included the listed policy objectives mentioned in the questionnaire, which demonstrates that councils recognise the importance of having a stated bus policy as part of their overall transport objectives. However, the case studies enabled a deeper investigation into the importance of written bus policy and it was found that overall, there was no clear evidence that a written bus policy document is essential for implementation. This was evident in CS1 (the Quality Contract attempt by Nexus) when the policy document in place (the 2012 Bus Strategy) was important in helping to justify the application by Nexus for Quality Contract powers. However, this document has not been updated since, which suggests it is

less essential for implementation of other policies in Tyne and Wear and was to an extent merely produced in order to help to support a particular course of action. CS3 (the Lode Lane bus priority scheme in Solihull) revealed that it was difficult to translate some policies into practice because of a lack of political support to help deliver the scheme. The lack of bus policy documents in place to support the LLRE scheme was however not especially important given that the scheme was instead placed firmly in an economic development policy context (access to jobs), not specifically a transport or bus policy context. Meanwhile, CS4 (ABC smart ticketing scheme in Dundee) indicated that the policy objectives of the Scheme appeared to be a barrier because the objectives for the bus operators were different from those of Transport Scotland. For example, the objectives of the bus operators were to increase profits and the number of passengers using their services, whereas Transport Scotland wanted to introduce smart ticketing and something simple like the Oyster card in London. However, the bus operators were concerned that the introduction of smart ticketing could have a negative impact on their business and that they could potentially lose profits and customers. In contrast to these three schemes, CS2 (Glasgow Fastlink) found that the original scheme was clearly related to policy objectives – although this did not in this case particularly aid its smooth implementation or reduce other implementation barriers. Overall, the case studies suggest that a scheme did not have to be aligned with the objectives of a bus policy document, for it to be implemented.

Closely related to policy objectives was the issue of setting targets and monitoring whether they are achieved. The questionnaires, telephone interviews and case studies revealed inconsistencies about the importance of this. Although the questionnaire results revealed that councils are setting objectives, there were many areas of concern highlighted throughout the questionnaire in terms of the importance of setting and meeting targets. For example, more than half of the officers indicated that they do not set targets. The telephone interviews revealed similar concerns where only one officer said they met all their targets while three officers said they met most of their targets. However, when the officers were asked if targets have an impact on how policies are implemented in their city, more than half of the officers said they do. However, concerns were expressed that either targets were not set or being met. The telephone interviews revealed that these concerns are due to a lack of funding; a lack of political will; a lack of communication within the council and the community; and a lack of advertisement and marketing. The

case studies also revealed concerns over setting and meeting targets. Although CS2 revealed that targets are set by SPT which are mostly about passenger satisfaction and usage for the Fastlink Scheme, CS1 revealed a general lack of data showing progress against its targets since the QCS proposal, while CS3 and CS4 did not set targets for the specific schemes.

The three sets of data also examined bus measures and monitoring in place to assess whether those measures had been delivered and had achieved objectives. These findings from the questionnaires reveal that, regardless of the policy objectives selected, the same policy measures were the most popular. With only a few minor exceptions, the order of popularity of measures was the same when cross-referenced against all of the policy objectives. This suggests that these measures were not chosen to meet specific policy objectives but for other reasons such as contributing towards several objectives simultaneously or being easier or cheaper to implement. For example, bus information is likely to be relatively easy to implement due to the duties and powers that local authorities have in this area under both the 1985 and 2000 Transport Acts; and because it is a relatively uncomplicated and uncontroversial measure. In comparison to this, control over maximum fares is something much more difficult to implement due to limited legal powers for local authorities in this area, as also outlined in this section.

The questionnaire results revealed that continued and regular monitoring of bus policy objectives is being carried out by councils. Meanwhile, the majority of officers who took part in a telephone interview felt it was important to have monitoring in place to achieve bus policy measures. For example, two officers mentioned that they monitor congestion, reliability and comfort. Furthermore, most officers agreed bus policy measures would be implemented as planned and without problems if stricter monitoring was in place. However, as one officer pointed out, there is no funding attached to doing well and achieving bus policy measures.

There appeared to be some contradiction between the questionnaire results and the telephone interviews when asked what they thought constituted good practice in monitoring. According to the questionnaire, “coherence and comprehensibility of the written policy” was one of the greatest barriers to implementation, whereas the majority of officers from the telephone interviews did not agree with this being one of the greatest barriers.

The case studies also revealed concerns over the monitoring regime in place for the specific bus schemes. The LLRE Scheme (CS3) is successful in terms of monitoring, however, there appears to be a lack of monitoring in place for the Fastlink Scheme (CS2) and the 'Fastlink Route Performance Report' published in 2015 was the last time such monitoring took place and no further monitoring reports have been published since then, which indicates to be a barrier to scheme acceptance. Meanwhile CS4 revealed limited information about the monitoring in place for the ABC Scheme. However, although the scheme is similar to an English VPA, there is no contract between DCC and the bus operators for monitoring to take place.

Although there are concerns about the level of monitoring that is in place, the results indicate that councils do in fact think it is important to have monitoring in place to improve their chances of future funding. It also highlights the importance of having clear strategies and tactics, rather than simply implementing policies that are "do-able." This, in turn, may improve policy development and collaboration, and promote an environment of stakeholder engagement because external stakeholders can understand the guiding logic and see evidence of progress. Moreover, robust monitoring regimes help to develop a sound evidence base to influence decision making and to monitor performance.

Overall, the questionnaires, telephone interviews and case studies revealed an unclear link between designing the policy, setting targets and suitable measures to achieve those targets, and monitoring those targets for implementation. Moreover, the case studies suggest that a bus scheme did not have to be in a policy document, or even aligned with a policy document's objectives, for it to be implemented.

2. Availability of resources: Resources such as financial support are important; however, where resources are limited, it is necessary to maximise the use of available resources.

The three sets of data identified the availability of resources as a key barrier to the implementation of bus policy. The officers from the questionnaires were asked to identify which barriers have the greatest and least impact on implementation. The greatest barriers included the availability of resources, while "limited funding" was identified as a key

reason for this barrier. However, the previous element of this framework revealed concerns with the unclear link between policy objectives and measures and the setting and monitoring of performance targets. Therefore, the results from the questionnaires suggested that this may be due to the over-emphasis on the availability of resources, which is seen as the greatest barrier to implementation based on several references made throughout the questionnaires. It was also suggested that this unclear link indicates that councils are in fact placing too much emphasis on "what" is needed to implement policy (i.e., resources) and instead they should be placing more emphasis on "how" to implement the policy in terms of targets, measures, and performance monitoring. Moreover, once this is clear, councils can then direct resources where needed.

Similar to the questionnaires, the telephone interviews revealed that the availability of resources was ranked the greatest barrier to impact implementation. For example, a lack of policy resources prevented the councils having a bus policy document, achieving targets, bus policy measures and working to their full potential.

Three out of the four case studies also identified availability of resources as a barrier. CS1 revealed that the QCS was judged by the Traffic Commissioner to be financially unsustainable, would cost the local tax payer a large amount of money with (according to the Commissioner) no real benefits, and involve issues in the future in terms of pension liabilities, and it was therefore rejected. Another example of the availability of resources as a barrier was identified in CS2 which indicated that there were delays in obtaining funding which resulted in consequent delays in the delivery of the scheme. CS4 also revealed that the bus operators struggled to prioritise their resources and find the time to deal with requests from various bodies. This was mainly due to the pressure from Transport Scotland who imposed the scheme upon them, however, the priority of the bus operators was their business and commercial concerns.

Meanwhile, the bus operators had made the most financial investments in comparison to other stakeholders involved in the scheme. It was also found that there was also a lack of knowledge, advertisement and marketing around the scheme. In contrast to these three case studies, CS3 indicated resources were an enabler to implement the LLRE

Scheme because Solihull MBC maximised the use of available funding and the under-spend within the GBSLEP's Local Growth Fund programme for 2015/16 was also helpful.

These findings highlight the difficulty that local authorities face in allocating resources to new transport policy initiatives. This is unsurprising, as lack of funding is the easiest and most natural barrier to nominate, but this does not mean that unlimited resources would ensure bus policy implementation. Nonetheless, undertaking a policy initiative and without financial resources to follow it through, or at the very least knowing where those resources might come from, suggests poor planning.

3. Intra-organisation support and communication: Policy staff need relevant training, supervision and support within their organisation when dealing with complex policy issues.

The results from the questionnaires provided limited information about intra-organisation support and communication within the local authorities. As previously mentioned, this could be due to officers answering the questionnaire questions in the broader context of their experiences of bus policy in their city, and not thinking only about working within their organisation. Therefore, this highlights the importance of including further methods of data collection such as telephone interviews and case studies to explore the role of organisations when dealing with bus policy and to determine any support or communication issues within these organisations.

Both the telephone interviews and case studies revealed that a lack of communication can have a negative impact on how policies are implemented. For example, half of the officers said communication was a barrier to implementation and this was particularly a barrier between neighbouring authorities, bus operators, stakeholders, politicians and the public. The telephone interviews also revealed that a lack of intra-organisation support and communication can also have an impact on how councils meet targets and how bus policies are monitored.

Similarly, three out of the four case studies identified intra-organisation support and communication as a barrier. CS1 indicated that some errors were made by Nexus in their

preparation of the case for the Quality Contract where they made “changes along the way”, had “weaker parts” of their case and “some mistakes” made by their consultants. They were also challenged by a relative lack of staff capacity to plan the business case for the QCS. Meanwhile, the bus operators had the financial and legal support and the communication resources to work against Nexus and to find flaws in the case for the QCS – clear evidence that the opponents of the scheme had greater organisational capacity and resources than did its promoters. CS2 found that SPT do not have as much internal expertise as the bus operators, but it was also found that the current framework in place isn’t working and the bus operators don’t have enough staff to look at radical plans to put in integrated transport systems. Finally, CS4 suggests there is support from bus operators in the UK for the general concept of the smart ticketing product, however there is a lack of support and capacity within the companies on dealing with the more complex issues with the product. Another example of communication as a barrier was identified in CS4 when a road maintenance five-year plan was introduced by the councils which created “havoc” for the bus operators and the bus services in place. In contrast to these case studies, CS3 revealed that prior to LLRE Scheme, the organisations involved worked together well for a number of years and carried out a series of bus network reviews across the region., implying that this pre-existing communication was an enabler for the LLRE scheme. Overall, the findings from the telephone interviews and case studies show that intra-organisational support and communication are clearly very important enablers for implementation.

4. *Characteristics of organisations: Both formal structural features of organisations and informal attributes of their personnel (including size, competency and workload of staff).*

The questionnaires, telephone interviews and case studies revealed the characteristics of organisations as a key barrier associated with the implementation of bus policy at a local level. It was revealed in the questionnaires that 15 officers did not know the number of teams within their council's transport department who have responsibility for the implementation of bus policies. However, as previously mentioned, this could suggest either that they did not know whether there were such teams within the council, or that they simply do not have teams within the council responsible for the implementation of bus

policies, because the councils are small and have few staff. Another question in the questionnaire asked the officers for their perception of planned and actual implementation for the previous LTP/S. Some 14% of officers did not answer this question, which could indicate that they were not aware of their success. While these examples suggest that the characteristics of organisations are a barrier for the implementation of bus policy, it was important to explore these issues further using telephone interviews and case studies.

In comparison to the questionnaires, the majority of officers interviewed did not agree that the characteristics of the organisation was one of the greatest barriers. However, staffing difficulties such as shortage of staff or over-worked staff were raised on several occasions and were considered to have a negative impact on policy implementation.

Meanwhile, all four case studies revealed the characteristics of the organisation as a barrier. CS1 indicated that staff from Nexus did not have the expertise for understanding the QCS process and therefore required several years of training to prepare the proposal. They also indicated that a key reason for why they failed to meet the requirements of the QCS was due to being a “small organisation with a small legal team and economic advisers.” Meanwhile, they felt that the bus operators had staff who were “commercially minded” and worked against their case for a QCS. Number and competency of staff within Nexus was also raised as an issue. CS2 revealed that SPT also experienced extra workload with the Fastlink project and this created stress for the staff. The size of the scheme was also identified as a barrier. CS3 indicated the workload of staff was a barrier as the scheme was brought forward and therefore worked simultaneously instead of sequentially. Staff were faced with time limitations to prepare the scheme and were under pressure to complete various stages of the business case. Competency of staff and priorities of staff were also raised as an issue. Similarly, CS4 revealed that internal efforts and time by the bus operators to deliver the scheme were a barrier. It was also found that not everyone involved was competent about understanding smart ticketing and this was particularly a barrier for bus drivers. Meanwhile, prior to the scheme, the bus operators were reluctant to be involved which meant the scheme started later than anticipated. They felt they had had other priorities every year and it wasn’t until 2016 when they ready to deliver the product.

5. Economic, social and political environments: Current and future economic, social and political environments play an important role on the outcome of the policy process.

The questionnaire revealed limited information about economic, social and political environments. However, as previously mentioned, it should be cautioned that questionnaires are sometimes completed by respondents in an abstract way without linking consideration of the questions to cases of implementation that might have made respondents think about the issues in a more "hands-on" way and thus about the economic, social and political environment in which they were working. For example, it was quite surprising that "economic, social and political environments" were judged to be less important in their influence on the implementation process than some other factors, as one might expect such factors to be quite critical to political support for a scheme or measure. Therefore, further methods of data collection such as questionnaires and telephone interviews were essential to explore these areas in detail and to determine what impact they have on the implementation of bus policy at a local level. Again, this shows the importance of having a mixed methodology for this research.

The case studies suggest that economic conditions are a lesser barrier in comparison to social and political environments. CS3 revealed economic environments were helpful to deliver the LLRE Scheme as Solihull has the most productive economy in the Midlands. Meanwhile, CS4 revealed that economic environments were helpful to implement the ABC Scheme due to the small number of operators with a good operating situation. This highlights the importance of the current economic climate, which is essential for implementation of bus schemes such as the LLRE Scheme and ABC Scheme. Moreover, it highlights how the current economic climate also affects the outcome of targets and monitoring of bus policy measures.

By comparison, the results indicated that social and political conditions have an impact on the implementation of bus schemes. CS2 revealed that there were social barriers due to an image problem associated with using the bus, competition between buses and rail and less press coverage to encourage bus usage. However, social environments were a barrier due to a negative perception from drivers when the scheme was introduced.

CS4 also revealed social conditions were a barrier where bus operators don't all portray the image of the benefits of using the scheme and there is negative perception of how some bus drivers communicate with customers availing of the scheme.

The telephone interviews identified several examples of where political conditions had an impact on the relationship between objectives and results. It was found that political constraints and support prevented councils from having a bus policy document in place, implementing bus policy measures and achieving targets. For example, measures that get political support at a general level (e.g., there should be more bus priority) may attract much less support once they require adding a bus lane on a specific street. Political conditions were also a barrier due to a lack of political support around understanding bus policy, uncertainty about what the council is trying to achieve and a lack of support to keep under constant review enforced bus lanes. The case studies also revealed examples of political barriers. For example, political barriers were evident in CS1 where the QCS proposal indicated that it would not extend to Durham and Northumberland. Meanwhile, political barriers were evident when the NECA area was unable to decide on the election of a new mayor. CS4 indicated political conditions were a barrier for the bus operators because they have their own commercial concerns and there was a danger that the ABC product would threaten existing revenue stream. However, the bus operators had little choice in the matter as Transport Scotland imposed this scheme on them. The results found that there was considerable mention of "political will" or lack thereof as a barrier. There may seem to be some contradiction in this finding since most authorities studied appeared to have documented bus policies that had been adopted politically but this perhaps shows that political support can be obtained for general strategy but may evaporate at the level of individual schemes.

6. Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.

The questionnaire indicated that policy champions had a lesser impact on implementation. Again, this could be due to officers answering the questionnaire questions in a much broader context in relation to their experiences of bus policy in their city, and not within

their organisation. Therefore, further methods of data collection including telephone interviews and case studies were important to explore the impact of policy champions on implementation.

In comparison to the questionnaire, four officers who took part in the telephone interviews did not agree policy champions had a low impact on implementation. The interviews revealed several examples of how competent and motivated staff can have an impact on other staff involved in the policy process. For example, one officer said competent and motivated staff enabled them to have a good partnership arrangement and they have been able to grow bus patronage in recent years. Furthermore, policy champions can have an impact on the development and implementation of bus policies and achieving targets. The interviews also revealed negative motivation and attitudes of staff could potentially jeopardise the working relationship between the council staff and bus operators. This was evident when one officer noted that when staff don't have an interest or involvement, buses can be seen as a second-class mode of travel.

The case studies enabled a deeper investigation into determining the importance of policy champions. All four case studies highlighted the importance of the role of policy champions and how they enabled the schemes to succeed, or not succeed as seen in CS1. CS1 revealed that both Nexus and the bus operators worked equally hard when dealing with the QCS inquiry, however it was the bus operators who saw the case follow through from beginning to end which included Go North East and Stagecoach. CS2 indicated that SPT were the policy champions for the Fastlink Scheme and they were committed and willing to work with the other stakeholders involved. CS3 revealed a key policy champion from Solihull MBC played an important role to implementing the LLRE Scheme. This champion was identified as responsible, competent, motivated, and wanted to drive change. Finally, CS4 revealed the ABC scheme had two key policy champions from National Express. These policy champions had the willingness and drive to implement the scheme and be the first in Scotland to happen from scratch. Overall, the case studies provide fruitful examples of the importance of having a policy champion in place to deliver bus schemes.

7. *Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.*

The questionnaires and telephone interviews revealed limited information on bureaucratic power and whether it had an impact on the implementation of bus policy at a local level. Similar to the third, fifth and sixth elements of the framework, further methods of data collection such as case studies were required to explore the impact of bureaucratic power in detail.

The case studies revealed several examples of how bureaucratic power had a negative impact on councils. For example, CS1 indicated that the bus operators didn't want to share data with Nexus because "it also adds another layer of bureaucracy with meetings and the bus companies aren't used to that exposure". Meanwhile, CS4 revealed that the bus operators were also reluctant to be involved in the ABC scheme but Transport Scotland had the power to enforce the scheme upon them.

These examples indicate that there are issues associated with bureaucratic power between organisations, rather than within organisations. Moreover, bureaucratic power is particularly an issue between bus operators and government bodies such as Transport Scotland and local councils.

8. *Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field.*

The questionnaires suggested that poor collaboration and low levels of interaction between those involved in the policy process had a negative impact on bus implementation at a local level. For example, a question in the questionnaire asked the officers if bus measures in their cities were implemented as planned and without problems. The result indicated that the policy measures facing barriers are those that require collaboration and action by the operators, where the local authority has little control. It was also found that

operators do not always view participation in various bus schemes to be in their best commercial interests, which often reduces their readiness to participate. Similarly, CS1 revealed that poor collaboration and interaction between those involved in the policy process were key barriers for the QCS. This was particularly noticeable when Nexus said the relationship between themselves and the bus operators was “damaged” during the QCS process. Furthermore, they stated that the bus companies were unwilling to share data and this in turn prevented them from planning the scheme more accurately and therefore from being implemented.

However, both the telephone interviews and the other three case studies revealed collaboration and interaction between those involved in the policy process is important for bus policy implementation at a local level. Most officers who took part in the telephone interviews highlighted the importance for the interaction between the councils and bus operators and felt it was key to have a good strong partnership arrangement. Several examples were also mentioned during the interviews that highlight the importance of the interaction between policy makers, implementers from various levels of government, and other actors. The officers felt good interaction was needed for policy implementation, achieving targets and to grow bus patronage.

Three case studies revealed collaboration and interaction between those involved in the policy process were enablers to implement the schemes involved. CS2 indicated that collaboration with locals who supported the development, political buy-in, partnerships working with the public transport agencies (the roads authority) and the operators was “absolutely crucial”. The bus operators had a “good relationship” with the staff at SPT and this helped the scheme to succeed. Similarly, CS3 revealed TfWM supported Solihull MBC with data, Atkins worked with TfWM on the initial feasibility and preliminary design, Solihull MBC were proactive in engaging with JLR about their site and National Express shared their data with Centro to carry out monitoring and evaluation of the scheme which in turn avoided incurring additional costs. Solihull MBC also collaborated with TfWM to help deal with customers and general queries along the way. Finally, CS4 revealed that there was a reasonable amount of consultation and engagement with the stakeholders and this helped to build a relationship between the parties involved. This was an important part of delivering the scheme as it ensured a common understanding

and scope on what was to be delivered. These results indicate that collaboration and interaction between bus operators, policy makers, implementers from various levels of government, and other actors is key for implementation.

9. *Policy remodelling: Limited changes to the policy should occur from the design stage right through to the implementation stage.*

While the questionnaires provided limited information on policy remodelling, both the telephone interviews and case studies revealed policy remodelling as a barrier for implementing bus policy at a local level. For example, one officer said policy change prevented their council implementing particular policy measures. Another officer said partners and stakeholder working groups are key so that policy does not change during implementation.

Meanwhile, three case studies revealed policy remodelling as a barrier for implementing the schemes. CS1 revealed Nexus made changes which made the bus operators believe Nexus were plugging the gaps as they went along and developed a new plan for the scheme. CS2 indicated SPT made a number of changes to the scheme based on the feedback from the public to help improve the scheme. CS3 revealed that changes included the removal of cycle lanes, repairs to the canal bridge on Lode Lane and adjustments to the TRO at Ratcliffe House. Meanwhile a proposal was put to Jaguar Land Rover for the transfer of some land adjacent to the highway for the scheme, however they could not agree terms on the cost of the purchase and the scheme was therefore amended. It was also established that the scheme was passed onto other members with different roles during the implementation process.

In contrast to these case studies, CS4 revealed policy changes were an enabler for the scheme because it was decided from the beginning how the scheme would be implemented and it was completed without significant changes. These findings highlight the importance of limited remodelling when implementing bus policy at a local level.

10. *Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.*

The questionnaires revealed opposition, conflict and ambiguities had a limited impact on implementation. However, some officers identified key barriers in their area as "bus wars between operators" and "public opinion influencing outcomes." The findings from the questionnaire also suggest that the unclear link between policy objectives, measures and the setting and monitoring of targets, could even be related to political decisions not to want to identify unmet targets and/or may relate to the difficulty of collecting data and monitoring progress in the achievement of certain policies. Meanwhile, like "economic, social and political environments", it was also surprising that opposition, conflict, and ambiguities were judged to be less important in their influence on the implementation process than some other factors. It is also expected that such factors would be quite critical to political support for a scheme or measure.

The results of the telephone interviews revealed that there were contradictions with the questionnaires and most officers did not agree public opposition had a lesser impact on implementation. In fact, the interviews provided several examples of barriers including conflict and ambiguities between councils and the public, local bus operators who competed with each other, and neighbouring councils who were fighting amongst each other for budgets. Furthermore, the interviews revealed that these conflict and ambiguities can have an impact on developing measures and implementing bus policies at a local level.

Similarly, all four case studies revealed opposition, conflict and ambiguities as a barrier for the implementation of the schemes. CS1 indicated that the Tyne and Wear PTUG supported Nexus and were in favour of the scheme, however they strongly opposed the opinions of the bus operators. Opposition from the public was mixed because people were not fully aware of the intentions of the scheme. It was also revealed that there was a "serious breakdown in the relationship" between Nexus and the bus operators which prevented the QCS from being implemented. CS2 revealed that delays to the scheme resulted in public opposition and opposition from hospital staff. The public also expressed

concerns over the appropriateness to spend a large amount of money on a busway that is relatively lightly used. Meanwhile, the case study revealed a lack of local government interest and support was a barrier. Similarly, CS3 identified public opposition as a key barrier due to the cutting down of trees, getting access to various locations and TROs to stop vehicles going into properties of residents. In terms of political power, it was also noted that too few politicians and decision makers use the bus and this can create a massive obstacle as they are focused on other priorities. Finally, CS4 revealed conflict and ambiguities were barriers because the bus operators had different expectations for the scheme as they are commercial businesses and driven by profits and this resulted in heated discussions with DCC. Further conflict was identified between both DCC and the bus operators related to profits and road maintenance. Both local and national elections were also barriers for the scheme and this resulted in the scheme being delayed.

These findings suggest opposition, conflict and ambiguities are key barriers to implementation. However, the framework has previously highlighted the importance of policy champions and collaboration and interaction between those involved in the policy process to prevent issues associated with opposition, conflict and ambiguities. For example, public opposition was a key barrier for the LLRE Scheme, however a policy champion was central to overcoming this barrier to implement the scheme.

8.3 Discussion of results

This research investigated barriers to the implementation of bus policies by local authorities in Great Britain. Analysis of the questionnaires, telephone interviews and case studies using the decision support framework revealed six barriers to have a particularly high impact on implementation. These include “bus policy document,” “availability of resources,” “intra-organisational support and communication,” “the characteristics of the organisation”, “economic, social and political environments”, and “opposition, conflict and ambiguities”. Three of these factors are in large part internal to the implementing organisation, which it must address itself if implementation is to be successful. Meanwhile, three factors are external to the implementing organisation and implementation is influenced by other conditions which the organisation has no direct control over.

All three sets of data ranked the policy document as one of the greatest barrier to implementation. This was noticeable where 18% of the officers from the questionnaire and the majority of officers interviewed did not have a specific bus policy document in place. However, it was interesting to see all officers interviewed expressed the importance of this document. Van Meter and Van Horn (1975) state that implementation requires statutory goals and objectives; the background of the policy; definition of key terms; and the policy's target groups. Meanwhile Pressman and Wildavsky (1973) point out that implementation is an interaction between the setting of goals and actions geared to achieve those. Given all three sets of data ranked policy document as one of the greatest barrier to implementation, it is clear that there is a lack of support around policy objectives, which suggests why some officers interviewed said they did not have a specific bus policy document in place. The case studies enabled a deeper investigation into the importance of written bus policy and it was found that overall, and in contrast to the questionnaire survey and interview results, there was no clear evidence that a written bus policy document is essential for implementation. For example, Solihull MBC (CS3) does not have a specific bus strategy or bus document in place, while Dundee City has not had a bus strategy or a bus policy document in place for the past 17 years.

Other concerns over the coherence and comprehensibility of the policy include achieving the objectives set in the written policy document. Although the questionnaire results reveal that councils are setting objectives, there were many areas of concern highlighted throughout the questionnaire in terms of setting targets and implementing measures to achieve these objectives. The interviews showed that more than half of the officers believed targets have an impact on how policies are implemented in their city, but concerns were expressed that either targets were not set or were not monitored. This is consistent with the finding by Van de Velde and Wallis (2013) that success is dependent upon the co-existence of a policy environment generally supportive of public transport. Thus, while the case presented here must be understood within the specific regulatory context of public transport in Britain outside London, the lessons summarised in Table 8.2 remain generalisable in terms of the need for a supportive and coherent policy framework for policy implementation.

Although annual monitoring reports were abolished during the Local Transport Act 2008, the questionnaire results revealed that continued and regular monitoring of bus policy objectives is being carried out by councils. Meanwhile, all three sets of data indicated the importance of having a monitoring regime in place. However, the case studies revealed concerns over the monitoring regime in place and this was noticeable in CS2 where there appeared to be a lack of monitoring in place for the Fastlink Scheme. Similarly, CS4 revealed limited information about the monitoring in place for the ABC Scheme. A lack of monitoring in place could potentially cause problems as identified by Spear and Lightowler (2005), where the absence of a systematic LTS annual reporting process made it more difficult to assess how Scottish authorities have used their LTSs to deliver improvements on the ground, contribute to their objectives or offer value for money for the resources provided. Furthermore, the absence of LTS annual monitoring also meant the problems with LTSs could not be addressed. Similarly, Gössling et al. (2016, p.83) found “insufficient monitoring tools” as a barrier related to developing and implementing incentives related to climate policy.

Gunn (1978) suggests that for “perfect implementation” adequate time and sufficient resources must be made available; the required combination of resources must be actually available; and tasks must be fully specified in the correct sequence. Van Meter and Van Horn (1975) and Pressman and Wildavsky (1973) also point out that policy resources should include appropriate funding. However, the three sets of data also ranked the availability of resources as one the greatest barrier to implementation. The interviews revealed that a lack of funding was preventing councils from achieving targets and there was a need for further financial support to help achieve targets. Therefore, authorities must be certain from the planning stage that there are sufficient resources available to support the initiative once implemented. Also, a lack of financial support could also be linked to a lack of political support during the implementation stage to access the required funds. These findings are consistent with research by McTigue et al. (2017), Preston (2016), Lindholm and Blinge (2014), Argyriou et al. 2012, p.87), Marsden and May (2006), and Gaffron (2003) highlighting the difficulty that local authorities face in allocating resources to new transport policy initiatives. This is unsurprising, as lack of funding is the easiest and most natural barrier to nominate, but this does not mean that unlimited resources would ensure successful bus policy.

Another high-impact barrier, intra-organisational support and communication, was ranked fourth in the questionnaire, while the telephone interviews revealed that there were concerns in some councils over the communication between neighbouring authorities, bus operators, stakeholders, politicians, and the public. It is also worth noting that McTigue et al. (2017) found intra-organisational communications were not well-documented by local authorities, which limited their ability to monitor the effect of such relationships on policy implementation. It is also evident that communication and cooperation are essential for implementation, which is also recognised by policymakers. For example, the Scottish Government (2005) reported that local bus networks are more likely to be successful if there is "a close working partnership between the local authority and the bus operators." These findings are consistent with Pressman and Wildavsky (1973) who suggest there needs to be consistent inter-organisational communication and enforcement activities and Gunn (1978) who believes that there must be perfect communication and co-ordination between participants.

Several top-down theorists indicate the importance of the characteristics of the organisations. For example, Sabatier and Mazmanian (1981) believe the implementation process needs to be legally structured to enhance compliance; and leaders and implementing agencies require significant managerial and political skills and commitment to the goals. Gunn (1987) believes there should be minimal dependency relationships between implementing agencies, and Pressman and Wildavsky (1973) suggest formal structural features of organisations and informal attributes of their personnel are important. These include bureaucratic structure, type of managerial power, organisational culture, and intergovernmental relations with other agencies and stakeholders (Van Meter and Van Horn, 1975). However, the characteristics of the organisations were also found to be a high-impact barrier to implementation, although there were some discrepancies on this point. The questionnaires ranked this second, while the interview respondents did not explicitly rate this as one of the greatest barriers. However, staffing difficulties, such as shortage of staff or over-worked staff, were raised several times. This is consistent with the finding of De Gruyter et al. (2015) that the "uncertainty over implementation responsibilities" a "general lack of ownership" can have a negative impact on implementing travel plans. The finding of Ison and Rye (2003) that a "policy champion," "political stability," and "trust in terms of the parties' involved" are needed for policy implementation

was not explicitly recognised here but did come through in the comments and case studies regarding a lack of financial support from politicians to implement the policies that they have set.

Since completing the empirical work in this thesis, it was found that the third variable of the framework “intra-organisation support and communication” related to the fourth variable of the framework, “characteristics of organisations”, in many instances (both of these variables included the work of the top-down theorists including Sabatier and Mazmanian (1981), Gunn (1978), Van Meter and Van Horn (1975) and Pressman and Wildavsky (1973)). For example, workload of staff can be a result of the training, supervision or support that they are provided with. Therefore, it is recommended by the author that both variables are combined in the decision support framework. This adjustment is important for other scholars working in policy implementation as it will avoid confusion when dealing with both elements of the framework.

A final high-impact barrier included opposition, conflict, and ambiguities. This was ranked as a medium impact barrier in the questionnaire and telephone interviews, however there were some conflicts between the questionnaires and interview findings. This likely reflects the fact that questionnaires are sometimes completed by respondents in an abstract way without linking consideration of the questions to particular cases of implementation that might have made respondents think about the issues in a more “hands-on” way. For example, less consideration may have been given to circumstances external to the implementing agency as suggested by the top-down theorists Gunn (1978), Van Meter and Van Horn (1975) and Pressman and Wildavsky (1973). It is also quite surprising that the questionnaire and telephone interviews judged “economic, social and political environments” and “opposition, conflict, and ambiguities” to be less important in their influence on the implementation process than some other factors, as one might expect such factors to be quite critical to political support for a scheme or measure. However, the case studies enabled a deeper analysis of these elements and both were raised to a “high impact” barrier. This highlights the importance of multiple cases which provides an extra dimension of cross-case analysis and can lead to richer theory building (Gronhaug, 2001). Moreover, the case studies revealed economic, social and political conditions (based on studies by Pressman and Wildavsky (1973), Van Meter and Van Horn (1975), Gunn

(1978), and Sabatier and Mazmanian (1981)) can be considered a greater or lesser barrier in some instances. For example, CS3 revealed economic conditions were helpful to deliver the LLRE Scheme as Solihull has the most productive economy in the Midlands. However, social environments were a barrier due to a negative perception from drivers when the scheme was introduced and political environments were also a barrier due to a lack of political support. For this reason, it is recommended by the author to divide this variable into three separate variables. This adjustment will be valuable for other scholars working in policy implementation as it will help them to differentiate between the three conditions and the barriers associated with those conditions.

Barriers that were highlighted as having a medium impact on implementation were associated with bureaucratic power; collaboration and interaction between those involved in the policy process; and policy remodelling. These were identified as a lesser impact in the questionnaires but higher in the interviews and case studies, which may be indicative of the more abstract nature of the questionnaire as compared to the real-world experience of the interviewees, which also highlights the importance of complementary research methods. These barriers are also associated with bottom-up approaches identified in studies by Lipsky (1971, 1980), Hjern et al. (1978), Elmore (1980), Rein (1983), and Grindle and Thomas (1990). This suggests that barriers associated to bus policy implementation are more likely going to be experienced from a top-down approach. Furthermore, policy remodelling, which taken from the work of Rein (1983) and Grindle and Thomas (1990), was found in this study to be less important because it was sometimes confused with 'bureaucratic power' by those who took part in the interviews and were considered similar as changes to policy is most likely due to bureaucratic power. For this reason, the author recommends removing the ninth variable of the framework, policy remodelling. Again, this is an important adjustment for other scholars working in policy implementation as it will avoid confusion when dealing with both elements of the framework.

Finally, policy champion was ranked the lowest barrier to impact implementation. This was not surprising as policy champions can be considered an enabler as they are central to overcoming barriers to implementing bus policy. Nonetheless, a lack of policy champions can be a barrier to implementation as the case studies revealed negative motivation and attitudes of staff could potentially jeopardise the working relationship between

council staff and bus operators. This is similar to the findings of Marsden and May (2006) where they suggested a strong political champion can achieve significant improvements in a short period of time, as did Ison and Rye (2003). To overcome the barriers associated with policy champions, it is important to meet the conditions set by the top-down approaches identified in this research. For example, Gunn (1978) states that those in authority must be able to demand and obtain perfect compliance. Similarly, Sabatier and Mazmanian (1981) believe leaders and implementing agencies require significant managerial and political skills and commitment to the goals. Meanwhile, Van Meter and Van Horn (1975) and Pressman and Wildavsky (1973) suggest implementing agencies should express his or her cognitive ability and willingness to understand the policy, his or her technical expertise, his or her level of support for the policy, and values like efficiency, effectiveness, equity, ethics, and empathy.

In terms of implications, Ballantyne et al. (2014) suggested that a generic decision-making framework would help overcome the barriers associated with the interaction between local authorities and freight stakeholders. The decision support framework and findings of this research, as presented in Table 8.2, could similarly form the basis of a decision support framework for the local transport policy implementation process.

8.4 Policy implications

Chapter 1 of this thesis explains how recent studies show that there is a steady decline in bus mileage and bus usage across Great Britain, which has a damaging effect on the bus network. This has a negative impact on economic, social, and health benefits, and the quality of life suffers due to a lack of physical access to jobs, health, education, and amenities (Banister, 2000). To overcome the problems associated with the decline in bus patronage and bus mileage, this research aimed to identify barriers to implementation of bus policies in Great Britain. The theoretical contribution of this study helps to further our understanding of implementation in the context of bus policy at a local level. While the new decision support framework helped to identify the key barriers associated with implementation, it is now important to determine how these findings can relate to the “real world” applicability for policy makers and planners and help overcome the issues associated with the decline in bus mileage and bus usage across Great Britain.

This research has identified the “coherence and comprehensibility of the written policy” as one of the greatest barriers to implementation. It has also highlighted that public transport officers agree that it is important to have a bus policy document in place. On the other hand, despite the importance placed on the policy document by the officers interviewed, the case studies revealed that a scheme did not have to be in a policy document for it to be implemented. However, several examples were provided on the importance of this document in terms of communicating with local stakeholders and politicians, understanding of what they need to achieve, dealing with conflict from the public and politicians who might have a different perception on a particular policy, and a way to identify key milestones to be achieved. Therefore, this research supports the views of the officers who believe it is important to have a bus policy document in place. It also suggests that the governments should reintroduce a statutory requirement for a separate bus strategy for all local authorities in Great Britain. Furthermore, sanctions should be in place where local authorities fail to produce an up-to-date bus policy document.

This research has also identified several concerns about the level of monitoring that is in place and it has found that councils do in fact think it is important to have monitoring in place to improve their chances of future funding. This research supports the opinions of the councils and believes it is important to have clear strategies and tactics, rather than simply implementing policies that are “do-able.” This, in turn, may improve policy development and collaboration, and promote an environment of stakeholder engagement because external stakeholders can understand the guiding logic and see evidence of progress.

The findings in this research suggest there is some confusion between a recognition of the importance of targets and an unclear responsibility and focus on setting and meeting them. This is most likely due to the political sensitivity of the topic, while public accountability exerts some influence in this area. Nonetheless, this research suggests targets are important and should be included by local authorities when dealing with bus policy as they can influence decision making and provide sound evidence base.

This research argues that the entire policy implementation process is undermined by the presence of an unclear link among policy objectives and measures and the setting

and monitoring of performance targets, which appears to stem in part from the lack of a tactical link between the higher level strategic objectives and the operational aspects of policy implementation. One reason for this may be the over-emphasis on the availability of resources, which is seen as the greatest barrier to implementation based on several references made throughout the questionnaires and interviews. This unclear link indicates that councils are in fact placing too much emphasis on "what" is needed to implement policy (i.e., resources) and instead they should be placing more emphasis on "how" to implement the policy in terms of targets, measures, and performance monitoring. Once this is clear, councils can then direct resources where needed.

When dealing with local bus policy, this research would encourage local authority staff and policy makers to consider intra-organisational support and communication for implementation. Those involved in the policy process should be provided with relevant training, supervision and support when dealing with complex policy issues. Several examples were provided in this research to highlight the importance of intra-organisational support and communication. CS2 indicated that while SPT were the scheme promoter, they were dependant on GCC for implementing anything on the roadway since they are the roadway authority. This highlights the importance of relevant training, supervision and support within their organisation. An interview with GCC also revealed that external consultants were employed to help SPT with several tasks to deliver the scheme, which highlights the importance of providing support when dealing with complex issues. In line with the fourth element of the decision support framework, this research argues that relevant training, supervision and support can help overcome the staffing difficulties such as shortage of staff or over-worked staff, which were raised on several occasions in this research and were considered to have a negative impact on policy implementation. It could also help to deal with barriers external to the implementing organisation such as economic, social and political conditions.

This research has identified policy champion as a low impart barrier, however, several examples were provided which highlights the importance of having a policy champion, who is responsible, competent, motivated, and wants to drive change. It also recommends that for policy to be implemented, there must be collaboration and interaction

between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field. Both policy champions and collaboration and interaction help to build a relationship between the parties involved which is important for delivering bus policy and ensuring a common understanding and scope on what is to be delivered. Moreover, collaboration and interaction are a step forward to bringing those involved in the process together to overcome the decline in bus mileage and bus usage across Great Britain.

Both a policy champion and collaboration and interaction between key actors involved in the policy process are essential for tackling other key barriers identified in the decision support framework. For example, they can ensure limited changes due to bureaucratic power. They can also ensure that limited changes to the policy occurs from the design stage right through to the implementation stage. Furthermore, they can help to overcome opposition, conflict and ambiguities due to public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

The overall conclusion of the research highlights the relationship between policy design and policy implementation in meeting transport policy objectives. Moreover, it is essential to regularly monitor performance in meeting specified targets. The deregulation of the bus sector in the UK means that in some cases, a lack of control over the implementation of certain measures places limits on policy implementation and results in the frequent implementation of policy measures that are achievable rather than those that are necessary for achieving policy objectives.

By applying this decision support framework to an analysis of policy implementation reporting, it can not only be used to evaluate the quality of reporting in individual cases, but also reveal to what extent the reporting process is able to address all the required elements of successful policy implementation, and thus achieve its overall goal of aiding policymakers and planners. The findings from this research helps policymakers to predict what makes implementation successful and to address problems and issues through improved policies and regulations, as well as to anticipate and plan for likely barriers.

8.5 Summary

This chapter has presented the overall findings from the questionnaires, telephone interviews and case studies. The key barriers were ranked as high, medium-high, medium-low, and low. This ranking system helped to identify which barriers had the greatest impact on bus policy implementation. It has also explained how these findings relate to the literature and its applicability to the “real world” for local authority staff and policy makers.

The next and final chapter of this thesis presents a set of conclusions to the research. The three research questions will be answered and a summary will be provided on key contributions, limitations of the current research and directions for future research.

Chapter 9: Conclusions

9.1 Introduction

The current debate on transport policy in the UK is focused on the need for a sustainable transport system. Buses play a vital role in achieving a sustainable transport system as they are the most frequently used and most accessible mode of public transport. However, the literature shows that the governance and the delivery of sustainable transport policies are not producing the desired outcomes (Hull, 2009) and the application of such policies in real situations remains inconsistent. This is evident across the UK where there has been a decrease in bus patronage and bus mileage. To address this gap, the aim of this research was to identify barriers to implementation of bus policies in Great Britain and three research questions were developed for this thesis:

1. What are the current perceptions of public transport officers in Great Britain on issues associated with the implementation of bus policies?
2. What factors have been barriers and enablers to the implementation of bus schemes within Great Britain?
3. What are the greatest barriers to bus policy implementation at a local level, as identified through the analysis of the data collected in this research?

To help answer these research questions, a mixed methodology (consisting of three independent methodologies) was adopted in this research. Chapter 4 (methodology) of this thesis provides the justification for the chosen methodologies and the research methods required for data collection. The findings from this research were presented in chapter 5 (questionnaire results), 6 (telephone interview results), and 7 (case study results) and included theoretical analysis based on the application of the ten-point decision support framework. The three sets of data were then triangulated in chapter 8 (theoretical synthesis and discussion) using the decision support framework developed from the literature. The findings were also discussed in relation to the “real world” applicability for policymakers and planners.

This final chapter concludes the thesis by providing a summary of key findings and original contributions to knowledge in the field of bus policy implementation. These findings enhance knowledge in understanding the barriers and challenges faced by the local authorities, which can greatly inform transport policy formation and improve the policy implementation process. A critique of the research approach and the limitations incurred is then presented, followed by a discussion of future research avenues.

9.2 Summary of findings

Three research questions facilitated in addressing the aim and objectives of this study and are answered as follows:

- 1. What are the current perceptions of public transport officers in Great Britain on issues associated with the implementation of bus policies?*

The second objective of this research was to evaluate the views and experiences of public transport officers in identifying areas of consensus and differences on issues associated with the delivery of bus policies within Great Britain. A survey methodology using an online questionnaire as a research method was used to gather data based on the views and experiences of the public transport officers. This was followed by a single case study methodology using semi-structured telephone interviews as a research method to further collect data which was based on the results of the questionnaire. The questionnaire and interview questions were placed under five key themes, while the data was analysed under these themes for ease of presenting the results.

The first theme, “policy documentation”, shows that there is a general consensus that there are problems associated with current bus policy documentation. The second theme, “policy responsibility”, found differences in general due to a certain level of miscommunication and unclear allocations of responsibility within local authorities when it comes to bus policy implementation. Next, the third theme, “policy targets”, indicates that there is general consensus on the issues associated with policy targets and that there are concerns about whether targets are met. Meanwhile, the fourth theme, “performance monitoring”, showed general consensus when discussing the issues associated with mon-

itoring. Finally, the fifth theme, “implementation barriers” indicates that there is consensus on some barriers associated with bus policy implementation including availability of resources/limited funding, fierce competition between operators, political will of members, physical space and layout of roads, high car ownership, and public opinion influencing outcomes. However, there were some differences identified in the interviews on some barriers associated to bus policy implementation. Most officers felt in particular that public opposition and the relationship between key people in council and local bus operators have a significant impact on implementation.

Overall, the questionnaire and interviews have revealed general consensus that there is an unclear link between designing the policy, setting targets and suitable measures to achieve those targets, and monitoring those targets for implementation. However, there appear to be differences in views in terms of policy responsibility, which indicates that there is uncertainty about who is responsible for the delivery of bus policies. The differences identified in the interviews on some barriers associated to bus policy implementation is most likely linked to this uncertainty about who is responsible for the governance and delivery of bus policy.

Table 9.1: Key findings from questionnaires and interviews

Theme	Key findings for questionnaires and interviews
Policy documentation	<ul style="list-style-type: none"> • Coherence and comprehensibility of the written policy identified as one of the greatest barriers to implementation (questionnaire) • 18% of local authorities do not have a specific bus policy document in place (questionnaire) • Majority of officers said they do not have a specific bus policy in place (interview)
Policy responsibility	<ul style="list-style-type: none"> • Unsuccessful in implementing bus policy measures (questionnaire and interviews) • 15 respondents did not identify how many different teams were within their council's transport department (questionnaire) • Eight out of ten officers said they knew the number of teams within their council's transport (interview) • Certain level of miscommunication and lack of responsibility within local authorities when it comes to bus policy implementation (interview) • Concerns highlighted throughout in terms of achieving bus policy objectives, meeting targets, and barriers related to policy implementation (interview)
Policy targets	<ul style="list-style-type: none"> • One council said they met all their targets while three officers said they met the majority of their targets (questionnaire) • Councils did not set targets for the number of vehicle kilometres per annum (74%), fares (70%), cost per passenger journey for services (65%), and age and quality of vehicles (51%) (questionnaire) • Reasons for not meeting targets included a lack of communication within the council and the community, lack of advertisement and marketing, lack of funding or financial support and political will (interview) • Six officers said they set targets in their council. Three officers said there was little progress on setting targets since the latest LTP/S came into effect (interview)

Performance monitoring	<ul style="list-style-type: none"> • Most popular form of monitoring included service reliability and punctuality (60%), number of passengers per annum (53%), and number of passengers satisfied with bus services (41%) (questionnaire) • Majority of officers felt it was important for monitoring to be in place to achieve bus policy success (questionnaire and interview) • Policy measures would be implemented as planned and without problems if stricter monitoring were in place (interview) • Councils want monitoring in place to improve their chances of future funding to monitor the measures that are in place (interview)
Implementation barriers	<ul style="list-style-type: none"> • The availability of resources is the greatest barrier to implementation (questionnaire and interview) • Barriers having a lower impact on implementation included public opposition, the relationship between key people in council and local bus operators, and reshaping or changes to policy measures by local implementation front-line staff (questionnaire) • Key barriers to implementation include limited funding, fierce competition between operators, political will of members, physical space and layout of roads, high car ownership, and public opinion influencing outcomes (questionnaire) • Majority of officers did not agree that public opposition and the relationship between key people in council and local bus operators had a lesser impact on implementation (interview) • Agreed reshaping or changes to policy measures by local implementation frontline staff had a lesser impact (interview) • Half of the officers said communication among staff involved in the policy implementation process, and motivation and attitudes of those responsible for developing or implementing bus policies were not barriers in their city (interview)

2. *What factors have been barriers and enablers to the implementation of bus schemes within Great Britain?*

The third objective of this research was to evaluate the views and experiences of key players/stakeholders in identifying challenges and barriers associated with the delivery of four different bus schemes within Great Britain. While the previous research question gave a broad overview on issues associated with the delivery of sustainable bus policies within Great Britain, this research question is answered by refocusing the lens on the specific area of research. Therefore, four case studies were conducted to enable a deeper investigation into bus policy implementation at a local level. The key findings can be summarised under three major issues:

Issues with scheme design:

A key barrier included the schemes being the first attempt at implementation of their kind (QCS and ABC Scheme), while the legislation was a problem for the QCS and the ABC product was a problem for the ABC Scheme. Further common issues associated with the scheme design included opposition from the bus operators (QCS and Fastlink) and opposition from the public (Fastlink and LLRE). Time limits to deliver the scheme (LLRE) and delays due to poor planning (Fastlink) were also barriers due to the scheme designs.

Existing bus policy document, policy targets and monitoring of bus policies:

Overall, the case studies share similar results with the questionnaire and telephone interviews and suggest that a key barrier to implementation of bus schemes is an unclear link between designing the policy, setting targets and suitable measures to achieve those targets, and monitoring those targets for implementation. Moreover, the case studies suggest that a bus scheme did not have to be in a policy document, or even aligned with a policy document's objectives, for it to be implemented.

Policy Implementation and barriers to implementation:

Other barriers to have a negative impact on implementation include public opposition, conflict between councils and bus operators, lack of data from bus operators, lack of

skilled staff and expertise, lack of political support, and delays as a result of elections and money delivered in phases.

3. *What are the greatest barriers to bus policy implementation at a local level, as identified through the analysis of the data collected in this research?*

The fourth objective of this research was to build on theoretical literature and current views and experiences of key players/stakeholders to help improve the delivery of sustainable transport policies at a local level. A review of literature was carried out on the theoretical approaches to policy implementation. It examined the theoretical approaches to implementation and focused on both top-down and bottom-up theoretical approaches. Both approaches were firstly analysed and then combined to distinguish a relationship between the two. A new decision support framework consisting of ten critical variables was then developed and then used to analyse the three sets of data collected in this study. The analyses of the questionnaires and telephone interviews were based on the opinions and perceptions of public transport officers who work in local authorities in Great Britain and would be considered an expert in bus policy at a local level. Meanwhile, the analysis of the case studies was based on the opinions and perceptions of a variety of actors from the bus industry, local and national government, NGOs and consultants.

The overall results show that two elements of the framework were rated as a high impact, including policy objective; and the characteristics of organisations. Four elements were rated as a medium-high impact including: availability of resources; intra-organisation support and communication; economic, social and political environments; and opposition, conflict, and ambiguities. Meanwhile, three elements were rated as a low-medium impact including: bureaucratic power; collaboration and interaction between those involved in the policy process; and policy remodelling. Finally, one element of the framework was rated as a low impact barrier which includes policy champions. It is recommended that local authority staff and policy makers use this decision support framework to help avoid the barriers associated with bus policy implementation.

Since completing the empirical work in this thesis, it is recommended by the author for some elements of the framework to be revised. For example, by conducting the theoretical analysis several times throughout this research, it was found that the third variable,

“intra-organisation support and communication”, related to the fourth variable of the framework, “characteristics of organisations”, in many instances. For example, workload of staff can be a result of the training, supervision or support that they are provided with. Therefore, it is recommended that both variables are combined and identified in the framework as:

- “Characteristics of organisations: Both formal structural features of organisations (relevant training, supervision and support) and informal attributes of their personnel (including size, competency and workload of staff)”.

It is also recommended that the fifth variable of the framework, “economic, social and political environments”, is divided into three separate variables. These are three important conditions which can affect bus policy implementation, differently. For example, CS3 revealed economic conditions were helpful to deliver the LLRE Scheme as Solihull has the most productive economy in the Midlands. However, social environments were a barrier due to a negative perception from drivers when the scheme was introduced and political environments were also a barrier due to a lack of political support. This shows that, in this instance, the fifth variable of the framework could be considered both a barrier and an enabler. For this reason, it is recommended to divide this variable into three separate variables. These three new variables would read as follows:

- Economic environments: Current and future economic environments play an important role on the outcome of the policy process.
- Social environments: Current and future social environments play an important role on the outcome of the policy process.
- Political environments: Current and future political environments play an important role on the outcome of the policy process.

A final recommendation is to remove the ninth variable of the framework, “policy remodelling”. This variable was confused on several occasions with the seventh variable, “bureaucratic power”. It is understandable that these variables were confused as changes

to policy is most likely due to bureaucratic power. The revised framework would now consist of 10 elements to be considered for successful policy implementation.

Decision support framework (revised)

1. *Policy objective: A written bus policy document should be in place, showing a clear link between policy objectives, measures and the setting and monitoring of targets.*
2. *Availability of resources: Resources such as financial support is important; however, where resources are limited, it is necessary to maximise the use of available resources.*
3. *Characteristics of organisations: Both formal structural features of organisations (relevant training, supervision and support) and informal attributes of their personnel (including size, competency and workload of staff).*
4. *Economic environments: Current and future economic environments play an important role on the outcome of the policy process.*
5. *Social environments: Current and future social environments play an important role on the outcome of the policy process.*
6. *Political environments: Current and future political environments play an important role on the outcome of the policy process.*
7. *Policy champions: Policy implementation should not be restricted to one policy champion and instead needs several policy champions who are responsible, competent and motivated to see the policy through from beginning to end.*
8. *Bureaucratic power: Hierarchical control in an organisation is important; however, hierarchical power must not be used to overrule policy decisions by other members within the organisation.*
9. *Collaboration and interaction between those involved in the policy process: Collaboration and interaction is necessary between key actors involved in the policy process, including policy makers, local authority staff, local and national governing bodies, regional transport partnerships, bus operators and transport practitioners working within the transport field*
10. *Opposition, conflict and ambiguities: Opposition, conflict and ambiguities are inevitable including public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.*

9.3 Recommendations for policymakers and transport planners

The aim of this research is to identify why bus policies are not implemented successfully at a local level and to provide recommendations for effective implementation and better decision making that will aid policymakers and transport planners. This section addresses the fifth and final research objective to meet the aim of this research. For ease of reference, the fifth research objective is addressed in table 9.2

Table 9.2: Fifth research objective

Research Objective	
5	<p>To provide policy makers and transport planners with recommendations for effective implementation and better decision making when implementing bus policy at a local level in Great Britain.</p> <p>This objective seeks to use the findings in this research to provide recommendations to help policymakers and transport planners to predict what makes implementation successful and to address problems and issues through better policies and regulations, as well as to anticipate and plan for likely barriers.</p>

This research proposes the following eight recommendations to help policymakers and transport planners to predict what makes implementation successful and to address problems and issues through better policies and regulations, as well as to anticipate and plan for likely barriers:

1. The interviews revealed that a lack of funding was preventing councils from achieving targets and there was a need for further financial support to help achieve targets. It is recommended that authorities must be certain from the planning stage that there are sufficient resources available to support the initiative once implemented.
2. "Coherence and comprehensibility of the written policy" was identified as one of the greatest barriers to implementation. This research supports the views of the officers who believe it is important to have a bus policy document in place. It recommends that the governments should reintroduce a statutory requirement for

a separate bus strategy for all local authorities in Great Britain. Furthermore, sanctions should be in place where local authorities fail to produce an up-to-date bus policy document.

3. This research has identified several concerns about the level of monitoring that is in place and it has found that councils do in fact think it is important to have monitoring in place to improve their chances of future funding. This research recommends policymakers and transport planners to have clear strategies and tactics, rather than simply implementing policies that are “do-able.”
4. The findings in this research suggest there is some confusion between a recognition of the importance of targets and an unclear responsibility and focus on setting and meeting them. This research recommends that targets should be included by local authorities when dealing with bus policy as they can influence decision making and provide sound evidence base.
5. This research argues that the entire policy implementation process is undermined by the presence of an unclear link among policy objectives and measures and the setting and monitoring of performance targets. This research recommends that councils should place less emphasis on "what" is needed to implement policy and instead they should be placing more emphasis on "how" to implement the policy in terms of targets, measures, and performance monitoring. Once this is clear, councils can then direct resources where needed.
6. When dealing with local bus policy, this research would recommend local authority staff and policy makers to consider intra-organisational support and communication for successful implementation. Those involved in the policy process should be provided with relevant training, supervision and support when dealing with complex policy issues. This in turn can help overcome the staffing difficulties such as shortage of staff or over-worked staff and it could also help to deal with barriers external to the implementing organisation such as economic, social and political conditions.

7. This research recommends that for policy to be implemented successfully, there must be collaboration and interaction between key actors involved in the policy process. Both policy champions and collaboration and interaction help to build a relationship between the parties involved, ensure limited changes due to bureaucratic power and changes to the policy, and help to overcome opposition, conflict and ambiguities.
8. This research recommends that policy makers and transport planners apply the decision support framework developed in this research to evaluate their own local transport policy implementation process, thus anticipate and plan for likely barriers.

9.4 Contribution to literature

The literature explains how recent studies show that there is a steady decline in bus mileage and bus usage across Great Britain, which has a damaging effect on the bus network. However, the literature has also indicated that there are no studies which specifically address the implementation process for bus policies at a local level in Great Britain. This research has therefore contributed to the literature and addressed this gap by exploring the current situation of bus policy in Great Britain to determine which barriers have the greatest impact on implementation.

Coherence and comprehensibility of the written policy was identified as one of the greatest barriers to implementation. Public transport officers agree that it is important to have a bus policy document in place, however, the case studies enabled a deeper investigation into the importance of a written bus policy and it was found that overall, there was no clear evidence that a written bus policy document is essential for implementation. This research also found concerns about achieving the objectives set in the written policy document and setting targets and implementing measures to achieve these objectives. This is consistent with the finding by Van de Velde and Wallis (2013) in terms of the need for a supportive and coherent policy framework for policy implementation.

There were also several concerns about the level of monitoring in place for local bus policy. It was found that councils do in fact think it is important to have monitoring and it is important to have clear strategies and tactics, rather than simply implementing policies that are “do-able.” This confirms the findings by Spear and Lightowler (2005) and Gössling et al. (2016, p.83) who found insufficient monitoring tools to be a barrier to implementation, as seen in this research. Therefore, this research suggests that the governments should reintroduce a statutory requirement for a separate bus strategy and an annual monitoring report for all local authorities in Great Britain. Furthermore, sanctions should be in place where local authorities fail to produce an up-to-date bus policy document and monitoring report.

Availability of resources was identified as another key barrier to implementation. In particular, a lack of funding was preventing councils from achieving targets and there was a need for further financial support to help achieve targets. This study suggests that authorities must be certain from the planning stage that there are sufficient resources available to support the initiative once implemented. A lack of financial support could also be linked to a lack of political support during the implementation stage to access the required funds. These findings are consistent with research by McTigue et al. (2017), Preston (2016), Lindholm and Blinge (2014), Argyriou et al. 2012, p.87), Marsden and May (2006), and Gaffron (2003) highlighting the difficulty that local authorities face in allocating resources to new transport policy initiatives.

This research has also found intra-organisational support and communication to be a key barrier to implementation and there are concerns in some councils over the communication between neighbouring authorities, bus operators, stakeholders, politicians, and the general public. Nonetheless, the research has found that communication and co-operation are essential for implementation, which is also recognised by policymakers such as the Scottish Government (2005) who reported that local bus networks are more likely to be successful if there is "a close working partnership between the local authority and the bus operators." When dealing with local bus policy, this research would encourage local authority staff to provide staff with relevant training, supervision and support, especially when dealing with complex policy issues. In line with the fourth element of the decision support framework, this research argues that relevant training, supervision

and support can help overcome the staffing difficulties such as shortage of staff or over-worked staff, which were raised on several occasions in this research and were considered to have a negative impact on policy implementation. It could also help to deal with barriers external to the implementing organisation such as economic, social and political conditions, and opposition, conflict and ambiguities which were identified as barriers to implementation in this research.

Similar to Marsden and May (2006) who highlights the importance of a strong political champion, this research has also found that a strong policy champion is important when implementing bus policy. Moreover, collaboration and interaction between key actors involved in the policy process is also essential for tackling barriers to the implementation of bus policy. Both factors can ensure limited changes due to bureaucratic power and they can also ensure that limited changes to the policy occurs from the design stage right through to the implementation stage. Furthermore, they can help overcome opposition, conflict and ambiguities due to public opposition, political power, local and national elections, conflicts between neighbouring authorities over budgets, bus wars and open-access to data by bus operating companies.

Overall, this research has identified several concerns with bus policy implementation. The most obvious concern is the unclear link between policy objectives and measures and the setting and monitoring of performance targets, which appears to stem in part from the lack of a tactical link between the higher level strategic objectives and the operational aspects of policy implementation. One reason for this may be the over-emphasis on the availability of resources, which is seen as one of the greatest barriers in this research. This unclear link indicates that councils are in fact placing too much emphasis on "what" is needed to implement policy (i.e., resources) and instead they should be placing more emphasis on "how" to implement the policy in terms of targets, measures, and performance monitoring. Once this is clear, councils can then direct resources where needed. Meanwhile, the deregulation of the bus sector in the UK means that in some cases, a lack of control over the implementation of certain measures places limits on successful policy implementation and results in the frequent implementation of policy measures that are achievable rather than those that necessary to the successful achievement of policy objectives.

This research has also made a theoretical contribution by developing a new decision support framework. Both top-down and bottom-up approaches to implementation were combined to develop the new decision support framework. The research has found that by applying this decision support framework to an analysis of policy implementation reporting, it can not only be used to evaluate the quality of reporting in individual cases, but also reveal to what extent the reporting process is able to address all the required elements of policy implementation, and thus achieve its overall goal of aiding policymakers and planners.

The findings from this research helps policymakers and planners to predict what makes implementation successful and to address problems and issues through improved policies and regulations, as well as to anticipate and plan for likely barriers. Moreover, addressing these barriers can help tackle the decline in bus mileage and bus usage across Great Britain.

9.5 Limitations of research

The questionnaire was limited to public transport officers who worked in local authorities in Great Britain and would be considered an expert in bus policy at a local level. Therefore, the survey methodology used in this research can be considered as a small-scale survey in terms of the number of participants eligible to take part. While the best efforts were made to encourage the officers to participate in a follow-up interview, only 10 officers agreed. These officers were particularly difficult to recruit due to the small-scale survey. Furthermore, the officers who completed the questionnaire were unable to allocate more of their time to be further involved in this research.

The case studies reported in this research involved four bus schemes in Great Britain. Unfortunately, this research was limited to four case studies due to the considerable amount of resources and time required for data collection. The case studies were also limited to Great Britain only, which limits the potential generalisation of the findings. Nonetheless, Eisenhardt (1989) argue that the number of cases are important and a minimum of four to a maximum of 10 should be included. Therefore, given the resources and time available to conduct the case studies, the author believes that the four case studies were sufficient for this research.

In addition, the number of interviewees were limited due to the limited number of appropriate industry representatives involved in those cases. This was particularly the case for CS4 where it was found challenging to obtain enough interviewees due to the scheme being much smaller, with less people involved, in comparison to the other three case studies. However, the interviewees involved in the case studies offered valuable knowledge on bus policy implementation that would not have been possible through a different research design.

Another limitation of the CSR is that with a large amount of data collected, it was impossible to present all the findings in this thesis. Therefore, the data was reduced to a manageable format that can then be presented, described and explained (discussed in chapter 4). However, there was potential to lose the richness of the data derived from the interviews. To avoid this problem, the data was collected, analysed and interpreted, making use of triangulation where possible to strengthen interpretations and using the evidence to answer the three research questions.

Based on the results of the three sets of data in this research, each element in the decision support framework was ranked as high, medium-high, medium-low, or low. This is a qualitative ranking by the author not intended for robust application but merely for ease of presenting and discussing the results. It does not claim ultimate truth and the framework itself is subject to new evidence by additional data collection. Instead, the decision support framework devised in this research is simply a generic decision-making framework to aid local authority staff and policy makers to identify the key barriers and challenges associated with bus policy implementation at a local level.

9.6 Recommendations for future research

Based on the limitations identified in the previous section, there are several recommendations for future research.

The aim of this research was to identify barriers to implementation of bus policies by local authorities in Great Britain, which can then be generalised both to bus policy in other countries and more broadly to local transport policy. Therefore, there is scope for further research by means of collaboration between researchers in different countries or

regions to access local bus policy implementation. A comparative case study could be conducted to understand how bus policy implementation differ in each case study so lessons can be learnt from the countries involved.

The survey methodology used in this research involved an online questionnaire with 56% of public transport officers who worked in local authorities in Great Britain and would be considered an expert in bus policy at a local level. The views and experiences of local bus policy was limited to these public transport officer, however, it is recommended that this methodology could be further expanded by involving other key actors involved in local bus policy. Similar to those who participated in the case study interviews of this research, a variety of experts in the area of local bus policy could be targeted to conduct a questionnaire based on their views and experiences, which could be different to those of the public transport officers. These include actors from the bus industry, local and national government, NGOs and consultants. Interviews with a variety of experts would enable a wider range of views on the given topic and therefore results would be less bias. Furthermore, a larger sample size would provide a stronger evidence base of the effectiveness of local bus policy implementation and a greater level of statistical confidence.

This research included a multiple case study methodology, consisting of four bus schemes in Great Britain. The case studies included interviews conducted with industry representatives based on these bus schemes to investigate the implementation of local bus policy. However, additional case studies conducted in Great Britain could expand on this investigation and increase understanding on the barriers associated with bus policy implementation.

The decision support framework developed in this research is not evaluated against other hybrid theories and frameworks mentioned in the literature review (Elmore (1985); Matland (1995a, 1995b); and Goggin et al. (1990)). Instead, the new framework has been developed as an analytical lens through which to view the empirical data, and then further improved in the light of that process. However, there is an opportunity for future work to compare the new decision support framework developed in this research with other hybrid theories and frameworks. Moreover, the new framework developed can be considered as

a contribution to the ongoing development of theory and therefore can be further improved and strengthened. For example, future research could be carried out to test this framework in other areas of policy implementation to assess whether it provides scholars and practitioners of implementation with an adequate framework to structure their work beyond the issues of bus policy implementation. Furthermore, the 10 elements of the framework can be modified and applied to policy affecting other transport modes, such as walking, cycling, freight, parking, etc. This would form a new decision support framework for policy makers and practitioners working within the field of transport and help them to avoid barriers to policy development and implementation as seen by the framework used in this thesis.

Finally, CS1 found that Nexus had difficulties with designing the QCS scheme due to the legislation in place. While the policy in place was seen as “sound”, the legislative requirements were undoubtedly a major issue for Nexus. This appears to be linked to the fact that no QCS has been implemented in the UK (outside London) since it was introduced in the 2000 Transport Act which therefore indicates concerns about the legislation currently in place. There have been a number of amendments to this act, with the latest being made by the Local Transport Act 2008 in England. The amended Acts saw the introduction of the possibility of different forms of partnerships and levels of partnership between bus companies and local authorities. These include Voluntary Quality Partnership, Statutory Quality Partnership, and Quality Contract. A multiple case study methodology could be conducted to help identify the barriers attached to the QCS in terms of the legislative requirements. The case studies could include the QCS in Tyne and Wear, SQP for the Fastlink in Glasgow (as seen in this research) and a VPA for the Sheffield Bus Partnership (voluntary agreement between SYPT, Sheffield City Council and bus operators First South Yorkshire, Stagecoach Sheffield, TM Travel and Sheffield Community Transport). This would cast additional light on the degree to which the legislation does or does not act as a barrier to implementation of these policies.

References

- Argyriou, I., Fleming, P., Wright, A., 2012. Local climate policy: lessons from a case study of transfer of expertise between UK local authorities. *Sustain. Cities Soc.* 5, 87–95.
- Ariffin, R.N.R., Zahari, R.K., 2013. The challenges of implementing urban transport policy in the Klang Valley, Malaysia. *Proc. Environ. Sci.* 17, 469–477.
- Atkins, 2005. Long term process and impact evaluation of the local transport plan policy. Interim Report. Department for Transport, London, UK.
- Baines, P., Chansarkar, B., 2002. *Introducing Marketing Research*. New York: John Wiley & Sons, LTD.
- Baker, T.L., 1994. *Doing Social Research*. New York: McGraw-Hill Inc, 1994.
- Ballantyne, E.E., Lindholm, M., Whiteing, A., 2013. A comparative study of urban freight transport planning: addressing stakeholder needs. *J. Transp. Geogr.* 32, 93–101.
- Banister, D., 2000. Sustainable mobility. *Built Environ.* 26(3), 175–186.
- Barrett, S., 2004. Implementation studies: time for a revival? Personal reflections on 20 years of implementation studies. *Public Adm.* 82(2), 249–262.
- Baxter, P., Jack, S., 2008. Qualitative case study methodology: study design and implementation for novice researchers. *The Qualitative Report.* 13(4), 544-556.
- Bernard H., R., 2002. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. 3rd Alta Mira Press; Walnut Creek, CA: 2002.
- Bray, D., Taylor, M., Scrafton, D., 2011. Transport policy in Australia – evolution, learning and policy transfer. *Transp. Policy.* 18, 522–532.
- Britten, N., 1995. Qualitative research: Qualitative interviews in medical research. *British Medical Journal.* 311, 251-253.

- Brown, S.C., Richard A., Stevens, J., Troiano, P.F., Schneider, M.K., 2002. Exploring complex phenomenon: grounded theory in student affairs research. *Journal of College Student Development*. 43(2), 1-11.
- Bryman, A., 2001. *Social Research Methods*. Oxford University Press, Oxford, UK.
- Bryman, A., 2007. Barriers to integrating quantitative and qualitative research. *Journal of Mixed Methods Research*. 1, 8-22.
- Bryman, A., 2008. *Social Research Methods*. Oxford University Press, Oxford, UK.
- Bryman, A., Bell, E., 2007. *Business Research Methods* (2nd edition). Oxford University Press, Oxford, United Kingdom.
- Bryman, A., Bell, E., 2011. *Business research methods* (3rd edition). Oxford University Press, Oxford, UK.
- Butcher, 2010. *Buses: deregulation in the 1980s*. House of Commons Library, UK.
- Centro, 2009. *Transforming Bus Travel*. Centro, Birmingham, UK.
- Centro, 2011. *West Midlands Local Transport Plan 3 2011 – 2026. Making the Connections*. Centro, Birmingham, UK.
- Charles, P., 2005. *Effective implementation of a regional transport strategy: Traffic incident management case study*. WIT Press.
- Cohen, L., Manion, L., Morrison, K., 2007. *Research Methods in Education*. (6th edition.). London: Routledge Falmer.
- Cooper, D., Greenaway, M., 2015. Office for National Statistics. *ONS Methodology Working Paper Series No 4. Non-probability Survey Sampling in Official Statistics*.
- Corbin, J., Strauss, A., 2008. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (3rd edition.). Thousand Oaks, CA: Sage Publications.
- Creswell, J.W., 2007. *Research Design: Qualitative and Quantitative approaches*. Thousand Oaks, CA: Sage Publications.
- Creswell, J.W., 2014. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th edition). Los Angeles, CA: Sage Publications.

- Creswell, J.W., Clark V.L., 2011. *Designing and Conducting Mixed Method Research*. 2nd Sage Publications; Thousand Oaks, CA: 2011.
- Daily Record, 2015. Available at: <http://www.dailyrecord.co.uk/news/scottish-news/buses-stop-using-40million-fastlink-6558794>. Last accessed: 28 September 2017.
- De Gruyter, C., Rose, G., Currie, G., 2015. Enhancing the impact of travel plans for new residential developments: insights from implementation theory. *Transp. Pol.* 40, 24–35.
- Dennis, K., Urry, J., 2009. *After the Car*. Cambridge. Polity Press, UK.
- Denscombe, M., 2003. *The Good Research Guide: For Small-scale Social Research Projects*. Open University Press, 2003.
- Denscombe, M., 2008. Communities of practice. *Journal of Mixed Methods Research*. 2, 270-283.
- Department for Transport, 2016. *Annual Bus Statistics England 2015/16*. Department for Transport, London, UK.
- DeWalt, K.M., DeWalt, B.R., 2002. *Participant observation: a guide for fieldworkers*. Walnut Creek, CA: AltaMira Press.
- Dolowitz, D.P., Marsh, D., 2000. Learning from abroad: the role of policy transfer in contemporary policy-making. *Governance* 13(1), 5–24.
- Dyer, W.G., Wilkins, A.L., 1991. Better stories, not better constructs, to generate better theory: A rejoinder to Eisenhardt. *Academy of Management Review*. 16, 613-619.
- Easton K.L., McComish, J.F., Greenberg, R., 2000. Avoiding common pitfalls in qualitative data collection and transcription. *Qualitative Health Research*, 10(5), 703-707.
- ECMT, 2002. *Implementing Sustainable Urban Travel Policies*. OECD, Paris, France.
- Eisenhardt, K.M., 1989. Building theories from case study research. *Academy of Management Review*. 14(4), 532-550.

- Elmore, R.F., 1980. Backward mapping: implementation research and policy decisions. *Polit. Sci. Q.* 94(4), 601–616.
- Elmore, R.F., 1985. *Forward and Backword Mapping: Reversible Logic in the Analysis of Public Policy*. Springer Netherlands, pp. 33–70.
- Flick, U., 2014. *An Introduction to Qualitative Research*. Sage Publications Ltd (5th edition) pp.50.
- Gaffron, P., 2003. The implementation of walking and cycling policies in British local authorities. *Transp. Pol.* 10(3), 235–244.
- Glaser, B., 1963. The use of secondary analysis by the independent researcher. *The American Behavioural Scientist.* 6, 11–14.
- Goggin, M.L., Bowman, A.O.M., Lester, J.P., O'Toole Jr, L.J., 1990. *Implementation theory and practice. Toward a Third Generation*. Harper Collins, New York.
- Golafshani, N., 2003. Understanding reliability and validity in qualitative research. *The Qualitative Report.* 8(4), 597-606.
- Gössling, S., Cohen, S.A., Hares, A., 2016. Inside the black box: EU policy officers' perspectives on transport and climate change mitigation. *J. Transp. Geogr.* 57, 83–93.
- Greenfield, T., 2002. *Research Methods for Postgraduates* (2nd edition). Arnold, London, UK.
- Grindle, M., Thomas, J., 1990. After the decision: implementing policy reforms in developing countries. *World Dev.* 18 (8).
- Guba, E., 1990. Carrying on the Dialog. Pp. 368-378 in E. Guba (Ed.). *The Paradigm Dialog*. Thousand Oaks: Sage Publications.
- Gunn, L.A., 1978. Why is implementation so difficult? *Manag. Serv. Gov.* 33, 169–176.
- Hennink, M., Hutter, I., Bailey, A., 2011. *Qualitative Research Methods*, Sage Publications Ltd, UK.
- Hensher, D.A., Golob, T.F., 2008. Bus rapid transit systems: a comparative assessment *Transportation.* 35(4), 501-518.

- Herriott, R.E., Firestone, W.A., 1983. Multisite qualitative research: optimizing description and generalizability. *Education Researcher*. 12, 14-19.
- Hjern, B., Hanf, K., Porter, D., 1978. Local networks of manpower training in the federal republic of Germany and Sweden. *Interorganizational Policy Making: Limits to Coordination and Central Control*. Sage Publications, London. pp. 303–344.
- Hull, A., 2009. Implementing innovatory transport measures: what local authorities in the UK say about their problems and requirements. *Eur. J. Transp. Infrastruct. Res.* 9 (3), 202–218.
- Ison, S., Rye, T., 2003. Lessons from travel planning and road user charging for policy-making: through imperfection to implementation. *Transp. Pol.* 10 (3), 223–233.
- ITSO, 2017. What is smart ticketing? Available at: <https://www.itso.org.uk/about-us/what-is-smart-ticketing/>. Last accessed: 18 December 2017.
- Jonker, J., Pennink, B., 2010. *The Essence of Research Methodology: A Concise Guide for Master and PhD Students in Management Science*. Springer, Heidelberg.
- Joppe, M., 2000. The research process. *The Quantitative Report Journal*. 8(4), 597-607.
- Kaplan, B., Duchon, D., 1988. Combining Qualitative and Quantitative Methods in Information Systems Research: A Case Study. *MIS Quarterly* 571-586.
- Kendall, L., 2008. The conduct of qualitative interview: Research questions, methodological issues, and researching online. In J. Coiro, M. Knobel, C. Lankshear & D. Leu (Eds.), *Handbook of research on new literacies* (pp. 133-149). New York: Lawrence Erlbaum Associates.
- King, N., 2004. Using templates in the thematic analysis of texts. In Cassell, C., Symon, G., (Eds.). *Essential guide to qualitative methods in organizational research*. Sage Publications, London. pp. 256–270.
- Knight, A., Ruddock, L., 2008. *Advanced Research Methods in the Built Environment*. Blackwell Publishing Ltd., West Sussex, UK.
- Kothari, C.R., 2004. *Research Methodology: Methods and Techniques* (2nd edition), New Age International Publishers.

- Krueger, R.A., 1994. Focus groups: A practical guide for applied research (2nd edition). Thousand Oaks, CA: Sage Publications.
- Kumar, R., 2005. Research methodology. A step-by-step guide for beginners. London: Sage Publications.
- Labuschagne, A., 2003. Qualitative research: airy fairy or fundamental? *The Qualitative Report*. 8(1), Article 7.
- Larsson, R., 1993. Case survey methodology: Quantitative analysis of patterns across case studies. *Academy of Management Journal*. 36(6), 1515-1546.
- Lincoln, Y.S., Guba, E.G., 1985. *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications.
- Lindholm, M.E., Blinge, M., 2014. Assessing knowledge and awareness of the sustainable urban freight transport among Swedish local authority policy planners. *Transp. Pol.* 32, 124–131.
- Lipsky, M., 1971. Street level bureaucracy and the analysis of urban reform. *Urban Aff. Rev.* 6, 391–409.
- Lipsky, M., 1980. *Street-level Bureaucracy: Dilemmas of the Individual in Public Services*. Russell Sage Foundation, New York.
- Mack, N., Woodson, C., MacQueen, K., Guest, G., Namey, E., 2005. *Qualitative Research Methods: A Data Collector's Field Guide*, Family Health International. North Carolina, USA.
- Mackie, P., Preston, J., Nash, C., 1995. Bus deregulation: ten years on. *Transport Reviews*. 15(3), 229-251.
- Marsden, G., May, A.D., 2006. Do institutional arrangements make a difference to transport policy and implementation? Lessons for Britain. *Environ. Plann. C: Govern. Policy* 24 (5), 771–789.
- Mathers, N., Fox, N., Hunn, A., 2002. Trent Focus for Research and Development in Primary Health Care. Using Interviews in a Research Project. Available: <http://web.simmons.edu/~tang2/courses/CUACourses/lsc745/sp06/Interviews.pdf>. Last accessed: 28 February 2018.

- Matland, R., 1995a. Synthesising the implementation literature: the ambiguity-conflict model of policy implementation. *J. Public Adm. Res. Theory* 5(2), 145–174.
- Matland, R.E., 1995b. Synthesizing the implementation literature: the ambiguity-conflict model of policy implementation. *J. Public Adm. Res. Theory* 5(2), 145–174.
- May, A.D., 1995. Transport policy: a call for clarity, consistency and commitment. *Proc. Inst of Civil Eng. –Transp.* 111(5), 163–168.
- McConville, J., 1997. *Transport Regulation Matters*. A&C Black.
- McTigue, C., Rye, T., Monios, J. 2017. The role of reporting mechanisms in transport policy implementation by local authorities in England. *Case Studies on Transport Policy*. In press.
- Meyer, C.B., 2001. A case in case study methodology. *Field Methods*. 13(4), 329-352.
- Mikkelsen, B., 2005. *Methods for Development Work and Research: A New Guide for Practitioners*. Sage Publications, 2005.
- Miles, M.B., Huberman, A.M., 1994. *Qualitative data analysis (2nd edition)*. Thousand Oaks, CA: Sage Publications, Inc.
- Morrow, S.L., 2005. Quality and trustworthiness in qualitative research in counselling psychology. *Journal of Counselling Psychology*. 25(2), 250 – 260.
- Mulley, C., Reedy, L., 2015. Research into policy: a case study of improving the research evidence base for transport policy makers in NSW, Australia. *Case Stud. Transp. Policy*. 3(2), 215–221.
- Nangpuhan, J., 2015. Higher education policy in the Philippines: An analysis. *International Journal of Science and Research* 4(1), 2396–2401.
- Neuman, W.L., 2003. *Social Research Methods qualitative and quantitative approaches (5th edition)*. Allyn and Bacon, Boston.
- North East Combined Authority, 2014. *Bus Strategy Delivery Project Report to the North East Combined Authority*. Available at: <https://www.nexus.org.uk/sites/default/files/Nexus%20Report%20to%20the%20NECA%20%28NELB%29.pdf>. Last Accessed: 18 July 2017.

- Office of National Statistics, 2015. Available at: <http://www.ons.gov.uk/ons/guide-method/method-quality/general-methodology/sample-design-and-estimation/index.html>. Last accessed; 11 November 2015.
- Olsson, L., Hjalmarsson, L., Wikström, M., Larsson, M., 2015. Bridging the implementation gap: combining backcasting and policy analysis to study renewable energy in urban road transport. *Transp. Policy* 37, 72–82.
- Pateman, T., 2011. Rural and urban areas: comparing lives using rural/urban classifications. *Reg. Trends*. 43(1), 11–86.
- Patton, M.Q., 1990. *Qualitative evaluation and research methods* (2nd edition). Sage Publications, Newbury Park.
- Patton, M.Q., 2002. *Qualitative Research and Evaluation Methods* (3rd edition). Thousand Oaks, CA: Sage Publications.
- Paudel, R.R., 2009. A critical account of policy implementation. *Nepal. J. Public Policy Govern.* 2(25), 26.
- Peat, J., Mellis, C., Williams, K., Xuan W., 2002. *Health Science Research: A Handbook of Quantitative Methods*. London: Sage Publications.
- Pitney, W.A., Ehlers, G. G., 2004. A grounded theory study of the mentoring process involved with undergraduate athletic training students. *Journal of Athletic Training*. 39(4), 344–351.
- Polit, D.F., Beck, C.T., Hungler, B.P., 2001. *Essentials of Nursing Research: Methods, Appraisal and Utilization*. Philadelphia: Lippincott Williams & Wilkins, 2001.
- Poole, 1995. *Deregulation of the Buses*. Research Paper 95/57. House of Commons Library, UK.
- Pressman, J., Wildavsky, A., 1973. *Implementation: How Great Expectations in Washington Are Dashed in Oakland*. Berkeley University of California Press.
- Preston, J., 2016. Big buses in a small country: the prospects for bus services in Wales. *Res. Transp. Econ.* 59, 379–387.
- Preston, J., Almutairi, T., 2013. Evaluating the long term impacts of transport policy: an initial assessment of bus deregulation. *Res. Transport. Econ.* 39 (1), 208–214.

- Preston, J., Almutairi, T., 2014. Evaluating the long term impacts of transport policy: the case of bus deregulation revisited. *Res. Transp. Econ.* 48, 263–269.
- Rabiee, F., 2004. Focus group interview and data analysis. *Proceedings of the Nutrition Society.* 63, 655–660.
- Reddy, S.K., 2015. Beating the odds! Build theory from emerging markets phenomenon and the emergence of case study research – A “test-tube” typolo. *Cogent Business & Management.* 2(1), 1-25.
- Rein, M., 1983. *Action Frames and Problem Setting from Policy to Practice.* Macmillan, London, pp. 221–234.
- Richardson, A.J., Ampt, E.S., Meyburg, A.H., 1995. *Survey Methods for Transport Planning* (1st edition). Eucalytpus Press.
- Robson, C., 1993. *Real world research.* Oxford, UK: Blackwell.
- Rossman, G.B., Wilson, B.L., 1985. Numbers and words: Combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation Review.* 9, 627-643.
- Rubin, J.H., Rubin, S.I., 2011. *Qualitative Interviewing: The Art of Hearing Data: The Art of Hearing Data.* Sage Publications, 2011.
- Sabatier, P., Mazmanian, D., 1981. The implementation of public policy: a framework of analysis. In: Mazmanian, D., Sabatier, P. (Eds.), *Effective Policy Implementation.* D.C. Health and Company, US.
- Salehi, K., Golafshani, N., 2010. Using mixed methods in research studies: An opportunity with its challenges. *International Journal of Multiple Research Approaches.* 4, 186 – 191.
- Scottish Government 2009. *Statutory Quality Partnership (SQP) Best Practice Guidance Executive Summary.* Available: <http://www.gov.scot/Resource/Doc/277937/0083501.pdf>. Last accessed: 05 September 2017.
- Scottish Government, 2005. *Scotland's Transport Future: Guidance on Local Transport Strategies.* Scottish Government, UK.

- Shenton, A.K., 2004. Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*. 22, 63-75.
- Sikolia, D., Biros, D., Mason, M., Weiser, M., 2013. Trustworthiness of grounded theory methodology research in information systems. *MWAIS Proceedings*.
- Solihull Metropolitan Borough Council, 2015. Lode Lane Route Enhancement Scheme Business Case. Solihull MBC, Solihull, UK.
- Solihull Observer, 2016. Lode Lane bridge repairs set to cause commuter chaos from Monday (July 11). Available: <https://solihullobservers.co.uk/news/lode-lane-bridge-repairs-set-cause-commuter-chaos-monday-july-11/>. Last accessed: 11 April 2018.
- Spear, J., Lightowler, A., 2005. Delivering local transport strategies in Scotland – are lessons to be learnt from English local transport plans? In: *STAR Conference*, Glasgow, Available: http://www.starconference.org.uk/star/2005/andy_lightowler. Pdf.
- Spradley J.P., 1979. *The ethnographic interview*. Holt, Rinehart & Winston; New York.
- SPT, 2009. Committee Report. *The Vision for Fastlink*. Available at: http://www.spt.co.uk/documents/sp300109_agenda6.pdf. Last accessed: 7 September 2017.
- SPT, 2015. Committee Report. *Fastlink Route Performance Report*. Available at: http://www.spt.co.uk/documents/latest/op031115_agenda11.pdf. Last accessed: 11 September 2017.
- Stagecoach, 2017. *Travelling across Dundee is as easy as ABC*. Available at: <https://www.stagecoachbus.com/promos-and-offers/east-scotland/abc>. Last accessed: 18 December 2017.
- Stake, R.E., 1995. *The art of case study research*. Thousand Oaks, CA: Sage Publications.
- Strauss, A.L., Corbin, I., 1997. *Grounded Theory in Practice* Sage Publications, Inc., London.
- The Guardian, 2015. *Plans for public control of buses suffer setback*. Available at: <https://www.theguardian.com/business/2015/nov/03/plans-for-public-control-of-buses-suffer-a-setback>. Last accessed: 1 August 2017.

- Thomas, G., James, D., 2006. Reinventing grounded theory: some questions about theory, ground and discovery. *British Educational Research Journal*. 32(6), 767-795.
- Traffic Commissioners for Great Britain, 2014. QCS board confirms plans to examine North East Quality Contract Scheme. Press Release. Available at: <https://www.gov.uk/government/news/qcs-board-confirms-plans-to-examine-north-east-quality-contract-scheme>. Last Accessed: 18 July 2017.
- Transport Scotland, 2012. *The Future of Smart Ticketing in Scotland. A Consultation*. Transport Scotland, UK.
- Transport Scotland, 2016. *Scottish Transport Statistics No 34, 2015 Edition*. Transport Scotland, UK.
- Transport Scotland, 2017. *Local Bus Services in Scotland - Improving the Framework for Delivery. A Consultation*. Transport Scotland, UK.
- Trochim, W.M.K., 2006. Non-probability sampling: Research methods knowledge base.
- Tuominen, A., Himanen, V., 2007. Assessing the interaction between transport policy targets and policy implementation—a Finnish case study. *Transp. Policy* 14(5), 388–398.
- Tyne and Wear Integrated Transport Authority, 2012. *The ITA Bus Strategy for Tyne and Wear 2012*. Available at: https://www.nexus.org.uk/sites/default/files/ITA%20bus%20strategy%20report%202012_02%20pdf.pdf. Last Accessed: 18 July 2017.
- Urban Transport Group, 2016. *Bus Policy Briefing 2016. June 2016 Version 8*.
- Van de Velde, D., Augustin, K., 2014. Workshop 4 Report: governance, ownership and competition in deregulated public transport markets. *Res. Transp. Econ.* 48, 237–244.
- Van de Velde, D., Wallis, I., 2013. ‘Regulated deregulation’ of local bus services - an appraisal of international developments. *Res. Transp. Econ.* 39(1), 21–33.
- Van Meter, D., Van Horn, C., 1975. The policy implementation process: a conceptual framework. *Adm. Soc.* 6(4), 445–487.
- Vartanian, T.P., 2010. *Secondary data analysis*. New York, NY: Oxford.

- Wahyuni, D., 2012. The research design maze: understanding paradigms, cases, methods and methodologies. *Journal of Applied Management Accounting Research*. 10(1), 69-80.
- Webb, S., Webb, B.P., 1913. *English Local Government. The story of the Kings Highway*. London & New York: Longmans, Green, UK.
- Welsh Government, 2016. *Public Service Vehicles in Wales, 2014-15*. Welsh Government, UK.
- White, P., 1995. Deregulation of local bus services in Great Britain: an introductory review. *Transp. Rev.* 15 (2), 185–209.
- White, P.R., 1997. What conclusions can be drawn about bus deregulation in Britain? *Transp. Rev.* 17(1), 1–16.
- White, P.R., 2010. The conflict between competition policy and the wider role of the local bus industry in Britain. *Res. Transp. Econ.* 29(1), 152–158.
- Winter, G., 2000. A comparative discussion of the notion of validity in qualitative and quantitative research. *The Qualitative Report*.
- Wright, L., W. Hook, W., 2007. *Bus Rapid Transit planning guide*. Institute for Transportation & Development Policy, New York.
- XPlore Dundee, 2016. ABC Multi Operator Ticket. Available at: <http://nxbus.co.uk/dundee/tickets-prices/abc-multi-operator-ticket>. Last accessed: 18 December 2017.
- Yeasmin, S., Rahman, F.K., 2012. 'Triangulation' research method as the tool of social science Research. *BUP Journal*. 1(1), 2219-4851.
- Yin, R., 1984. *Case study research: design and methods*. Sage Publications, Beverly Hills, California, US.
- Yin, R., 1989. *Case Study Research – Applied Social Research Methods*. Series: 5. Sage Publications, Newbury Park.
- Yin, R., 1994. *Case study research: design and methods*. (2nd ed.), Thousand Oaks, Sage Publications, Beverly Hills, California, US.

Yin, R., 2003. *Case Study Research Design and Methods*. Thousand Oaks, Sage Publications, Beverly Hills, California, US.

Yin, R., 2009. *Case Study Research: Design and Methods* (4th edition). Sage Publications, Beverly Hills, California, US.

Appendix A: Online questionnaire

Informing decisions, Shaping policy.



Local Authority Staff Questionnaire on Bus Policy Implementation

Introduction

My name is Clare McTigue and I am a second year PhD student at Edinburgh Napier University. I am carrying out my research at the Transport Research Institute (TRI) and I am under the supervision of Professor Tom Rye, who is the director of the Institute.

I would like to invite you to participate in my research study and to help collect data for my thesis on “The Implementation of Transport Policy at a Local Level”. The data collected for this survey is specific to the implementation of **bus policies** at a local level. Therefore, I am contacting experts from local authorities in this area, who can give their opinions and perceptions and comment on how bus policies are implemented in their area.

The information I am looking for on bus policies includes some or all of the following:

- **Objectives** for the local bus network and the targets to measure this
- **Measures** e.g. bus lanes to help achieve the objectives
- **Documents** that set out the above e.g. local transport plan/local transport strategy.

Your confidentiality and anonymity will be maintained and your personal privacy and identify will be protected. The collection, storage, disclosure and use of research data by the researcher will also comply with the Data Protection Act 1998 and the Edinburgh Napier University Data Protection Code of Practice.

This survey will take approximately 10 minutes of your time. Please note if you don't know the answer or don't want to answer a particular question, please feel free to leave it blank. If you have any other comments or queries, please contact me at [REDACTED]

Thank you in advance for your participation.

Please complete this survey by: 8th July 2016

Informed Consent Form

Edinburgh Napier University requires that all persons who participate in research studies give their written consent to do so. Please read the following and sign it if you agree with what it says.

1. I freely and voluntarily consent to be a participant in the research project on the topic of "*Implementation of Transport Policies at a Local Level*" to be conducted by *Clare McTigue*, who is a PhD student in the Edinburgh Napier School of Engineering and the Built Environment.
2. The broad goal of this research study is to explore the implementation of **bus policies** at a local level. Specifically, experts from local authorities are contacted to give their opinions and perceptions and to comment on how bus policies are implemented in their area. The survey should take no longer than **10 minutes** to complete.
3. I have been told that my responses will be anonymised. My name will not be linked with the research materials, and I will not be identified or identifiable in any report subsequently produced by the researcher.
4. I also understand that if at any time during the questionnaire survey I feel unable or unwilling to continue, I am free to leave. That is, my participation in this study is completely voluntary, and I may withdraw from it at any time without negative consequences.
5. In addition, should I not wish to answer any particular question or questions, I am free to decline.
6. I have been given the opportunity to ask questions regarding the survey questionnaire and my questions have been answered to my satisfaction.
7. I have read and understand the above and consent to participate in this study. My signature is not a waiver of any legal rights. Furthermore, I understand that I will be able to keep a copy of the informed consent form for my records.

1. Do you understand and agree with the above terms? *

I agree

About You

2. Please name your local authority:

3. In which of the following ways are you involved with bus policy in your authority and/or region?

Please tick all that apply:

- Writing or developing bus policies for your city
- Setting targets for local bus policy
- Monitoring bus polices that are in place
- Implementing the measures to achieve local bus policy objectives

Existing Bus Policy Document

Existing bus policy documents include a written statement of what the authority wants buses to achieve with objectives, and the measures it will implement to deliver these objectives.

4. How long has your council had a written local bus policy in place? (For example, a chapter in your Local Transport Plan/Local Transport Strategy (LTP/S) or a separate Bus Strategy document)

Please choose from the following options:

- Less than 1 year
- 1 to 5 years
- 6 to 10 years
- 11 or more years
- We don't have a local bus policy written down in a single document – it is more a collection of actions and policies from different documents
- We don't have any kind of local bus policy We are in the process of developing one

5. What are your bus policy objectives?

	Bus Policy Objective
Economic:	
To help the transport system operate more efficiently	<input type="checkbox"/>
To provide opportunities for fostering a strong, competitive economy and sustainable economic growth	<input type="checkbox"/>
To maintain the transport infrastructure to standards that allow safe and efficient movement of people and goods	<input type="checkbox"/>
Social:	
To improve safety, security and health, and in particular to cut the number and severity of road casualties	<input type="checkbox"/>
To promote equal access to transport	<input type="checkbox"/>
Environmental:	
To improve environmental quality and reduce the effects of transport pollution on air quality	<input type="checkbox"/>
To contribute to national and international efforts to reduce transport's contribution to overall greenhouse gas emissions	<input type="checkbox"/>

Please include any other bus policy objectives:

6. The following table provides a list of measures to achieve bus policy objectives. Please select the stage at which each of the following measures are at in your city:

	We have implemented this	We considered this and we will implement in the future	We considered this but we will not implement this	We will look at this in the future
Bus Stop Infrastructure:				
Improved pedestrian access to stops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shelters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unobstructed level kerb access for buses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal security (CCTV, lighting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information and Ticketing:				
Real time passenger information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus Information – timetables and bus stop flags	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tickets which can be bought before boarding buses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Printed leaflets and other paper-based information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multi-operator integrated tickets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing:				
Marketing targeted at persuading regular car commuters to use public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pump-priming funding for bus routes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing of bus services such as school and business travel plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus Priority:				
Reviewing current bus lane network and its operation to ensure it is effective, legible and enforced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New bus lanes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus priority at signals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Council and operator working in partnership to deliver:				
Clean accessible quality vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality customer care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality bus stops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integrated ticketing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality bus infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maximum fares	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Policy Implementation

7. How many different teams within the council's transport department have responsibility for the implementation of bus policies?

Please state the number in the box below:

8. With regards to bus policies set out in your 2006 – 2011 Local Transport Plan (England) or most recent Local Transport Plan (Wales), or Local Transport Strategy (Scotland), what is your perception of what was planned to be implemented, and what was actually implemented?

- Most of the policies that were planned to be implemented, were implemented successfully
- More than half of the policies that were planned to be implemented, were implemented successfully
- Less than half of the policies that were planned to be implemented, were implemented successfully
- Very few of the policies that were planned to be implemented, were implemented successfully

9. Bus policy measures are implemented as planned and without problems:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
Bus Stop Infrastructure:					
Improved pedestrian access to stops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shelters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unobstructed level kerb access for buses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal security (CCTV, lighting)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information and Ticketing:					
Real time passenger information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bus Information – timetables and bus stop flags	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tickets which can be bought before boarding buses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Printed leaflets and other paper-based information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi-operator integrated tickets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marketing:					
Marketing targeted at persuading regular car commuters to use public transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pump-priming funding for bus routes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marketing of bus services such as school and business travel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

plans					
Bus Priority:					
Reviewing current bus lane network and its operation to ensure it is effective, legible and enforced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New bus lanes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bus priority at signals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Council and operator working in partnership to deliver:					
Clean accessible quality vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality customer care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality bus stops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integrated ticketing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality bus infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maximum fares	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Previous Bus Policy Targets

10. Have the targets related to buses set in the 2006 – 2011 Local Transport Plan (England), or most recent Local Transport Plan (Wales), or Local Transport Strategy (Scotland) been met?

- Most of the targets set in the local transport plan/strategy are met
- More than half of the targets set in the local transport plan/strategy are met Less than half of the targets set in the local transport plan/strategy are met Very few of the targets set in the local transport plan/strategy are met
- We have no targets related to bus policy

11. Please state which of the following bus policy targets were met:

	Yes	No	We didn't set a target
Number of passengers per annum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of vehicle kilometres per annum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost per passenger journey for services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of passengers satisfied with bus services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service reliability and punctuality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age and quality of vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The things we have implemented e.g. km of new bus lanes opened, number of new shelters installed etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fares	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Monitoring of Bus Policies

A number of transport acts require all local transport authorities in England and Wales to produce a LTP. In England, a separate annual monitoring or delivery report was also required until 2008 to show how the LTP/S was progressing, however this system of close monitoring was abandoned in recent years.

12. Please state how bus policies and measures are currently monitored by your council:

We monitor (please tick all that apply):

- Number of passengers per annum
- Number of vehicle kilometres per annum
- Cost per passenger journey for services
- Number of passengers satisfied with bus services
- Service reliability and punctuality
- Age and quality of vehicles
- The things we have implemented e.g. km of new bus lanes opened, number of new shelters installed etc.
- Fares

Barriers to Implementation

13. From the following table, please identify which barriers have the greatest impact on implementation and which have the least impact on implementation. Please note that 1 represents the least impact and 5 represents the greatest impact.

	Barriers to Policy Implementation				
	Least impact		Greatest Impact		
	1	2	3	4	5
Communication amongst staff involved in the policy implementation process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Characteristics of local authority (e.g. competence and size of staff)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General economic, social and political conditions outside Council	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivation and attitudes of those responsible for developing bus policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivation and attitudes of those responsible for implementing bus policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reshaping or changes to policy measures by local implementation frontline staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interaction between policy makers, implementers from various levels of government, and other actors (e.g. interaction between council and bus operator)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of resources (e.g. funding)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coherence and comprehensibility of the written policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unforeseen practical problems (e.g. due to failure to achieve planning permission for a park & ride site)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conflict, ambiguities or disputes between those involved within the implementation process i.e. not everyone involved has a shared understanding of what is to be implemented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economical situation of local bus operator(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relationship between key people in Council and local bus operator(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local politics e.g. change of political control of Council or change of cabinet member responsible for transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public opposition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please state as many barriers as possible):

Closing comments

14. Would you be interested in taking part in a case study interview?

Yes

No

If yes, please provide your contact details in the box below:

15. Would you like to receive a copy of the results?

Yes

No

If yes, please provide your contact details in the box below:

16. If you would like to make any further comments, please state these in the box below:

Appendix B: Telephone interview questions

Existing bus policy document

Q1. 18% of respondents said they don't have a local bus policy document.

- (a) Does your council have a bus policy document in place? Why or why not?
- (b) How important do you think it is to have this document in place?

Q2. Some councils identified several policy measures to be less successful in their cities (e.g. maximum fares, integrated ticketing, and personal security such as CCTV and lighting). Is this the case in your city/area? If so, why do you think this is?

Policy Implementation

Q3. (i) How many different teams within your council's transport department have responsibility for the implementation of bus policies?

Q3. (ii) 15 respondents did not identify how many different teams were within their council's transport department. Does this suggest:

- (a) They do not know whether there were such teams within the council?
- (b) They simply don't have teams within the council responsible for the implementation of bus policies?

Q4. The majority of respondents said policies were implemented successfully in the previous LTP/S. However, there were also many areas of concerns highlighted throughout the survey (in terms of achieving bus policy objectives, meeting targets, and barriers related to policy implementation). Do you think there may be some inconsistencies in how respondents answered the survey?

Q5. Some councils said bus policy measures are not implemented as planned and without problems. Is this the case in your city? If so, does this apply to particular types of measures; and why do you think these implementation problems are experienced?

Q6. The survey found "*maximum fares*" and "*reviewing current bus lanes*" as the least successful bus measures. Are these measures a problem in your city also? If so, why?

<p>Previous Bus Policy Targets</p>	<p>Q7. 44% of councils met most or more than half of their previous LTP/S targets related to buses.</p> <p>(a) How successful was your council for meeting its targets? (b) What more could councils do more to achieve targets? (c) What is preventing councils achieving targets?</p> <p>Q8. 19% of councils have no targets.</p> <p>(a) Does your council have targets? Why, or why not? (b) Do targets have an impact on how policies are implemented in your city?</p>
<p>Monitoring of Bus Policies</p>	<p>Q9. (i) How important do you think it is for monitoring to be in place to achieve bus policy measures? Why?</p> <p>Q9. (ii) What do you think constitutes good practice in monitoring?</p> <p>Q10. Do you think more bus policy measures would be implemented as planned and without problems, if stricter monitoring was in place?</p> <p>Q11. (i) The survey found that the greatest barriers to impact implementation include: (a) availability of resources (e.g. funding), (b) characteristics of local authority (e.g. competence and size of staff), and (c) coherence and comprehensibility of the written policy. How do these barriers rank in your city?</p>
<p>Barriers to Implementation</p>	<p>Q11. (ii) The survey found that the barriers to have a lesser impact on implementation include: (a) public opposition, (b) relationship between key people in Council and local bus operator(s), and (c) reshaping or changes to policy measures by local implementation frontline staff. Are these barriers also less influential in your city?</p> <p>Q11. (iii) Other barriers highlighted in the survey included (a) communication amongst staff involved in the policy implementation process, and (b) motivation and attitudes of those responsible for developing or implementing bus policies. Could you give me an example or two of where you have seen these barriers to impact implementation in your city?</p>

Appendix C: Case study questions

Theme 1 - Scheme Background

1. Explain a bit about the [scheme]: how does it work, how much did it cost, what area(s) it covers, and who was involved in delivering it?
2. What were the motivations and benefits for the proposed [scheme]?
3. Who were the key stakeholders involved in preparing and implementing the proposed [scheme]?
4. What were [scheme location] involvement in preparing and implementing the proposed [scheme]?
5. Was the [scheme] implemented as planned? Why or why not?
6. In what ways do you feel that implementation (including detailed design and seeking funding) went well, and in what ways might it have been improved?

Theme 2 - Existing bus policy document, policy targets and monitoring of bus policies

7. Does [location local government] have an existing bus strategy and policy document (and/or is there a section in these documents about buses)?
8. If so, how does the [scheme] fit with the policy document(s)? Does the policy document specifically mention the [scheme]?
9. How important do you think it is to have this document in place in terms of being able to plan and implement this scheme?
10. Does [scheme location] set bus policy targets? Why, or why not?
11. Does the [scheme] have targets which it needs to meet? If so, what are they?
12. Do targets have an impact on how bus policies are implemented in the [scheme location] area?
13. How important do you think it is for monitoring to be in place to aid the implementation of bus policy measures? Why?
14. How is the [scheme] monitored?

15. What do you think constitutes good practice in monitoring of a scheme like this and to what extent do you feel that you and other stakeholders in the planning and delivery of the [scheme] carry out such monitoring?
16. Do you think more bus policy measures such as the [scheme] would be implemented as planned and without problems, if stricter monitoring was in place?

Theme 3 - Policy Implementation and barriers to implementation

17. Are there other bus policy measures that have not been implemented successfully in [scheme location]? If so, do these implementation problems apply to all or just to particular types of measures; and why do you think these implementation problems are experienced?
18. What needs to change in bus policy implementation to make it easier for more projects like the [scheme] to be implemented?
19. Were there any key barriers that caused difficulties which may have prevented the [scheme] from being implemented?
20. What policies/actions/factors enabled the [scheme] to succeed?
21. This research so far has found that the greatest implementation barriers for bus policy measures include: (a) availability of resources (e.g. funding), (b) characteristics of local authority (e.g. competence and size of staff), and (c) coherence and comprehensibility of the written policy. How did these barriers rank for the implementation of the [scheme]? Were there other more important barriers?
22. This research has found that the barriers to have a lesser impact on implementation include: (a) public opposition, (b) relationship between key people in Council and local bus operator(s), and (c) reshaping or changes to policy measures by local implementation frontline staff. Were these barriers also less influential for the implementation of the [scheme]?
23. Can you give examples of other barriers that have previously impacted bus policy implementation in the [scheme location] area?