Sustainable transport access in town centres

A goal-orientated decision-making perspective on the adaptive power of small business

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June 2013

Thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in the Business School, University of Sydney, Australia

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Abstract

Town centres are connected places. Business owners in town centres value the transport accessibility and tap into it as a resource of their business. When policymakers want to change the conditions in which people access a town centre, this represents a disruption to how businesses capture value from access.

There is value in understanding the (relatively under-researched) question of how small business owners react when sustainable transport policies are implemented in an urban town centre environment – especially if it involves the removal of car parking. Similar to how changes to town centre parking are intended to disrupt the goal needs of the travelling public, changes to town centre parking are a disruption to the goal needs of businesses to protect or advance their business viability. This research contributes to knowledge by investigating how changes to transport access are incorporated into the business strategies of business owners; the willingness of business owners to adopt strategies that utilise new modes of transport access; and the potential power of town centre business actors to impact sustainable transport policy goals.

A goal-orientated model of decision-making is used as a framework to examine if/how psychological theory about individual goal motivations and strategies links with sociological thinking about the capture of value from accessibility features in the environment. Historical research, focus groups and an innovative mobile web-assisted personal interviewing (WAPI) survey of 156 business owners are used to investigate how shop-based businesses in a selection of inner city town centres of Sydney, Australia respond to hypothetical changes in accessibility.

This study found local government's role as instigator of disruptions, was a barrier for them understanding the underlying business concerns and appreciating small businesses' willingness to adapt. Businesses surveyed were optimistic about the customer and competitive benefits of improved sustainable transport options and indicated willingness to incorporate the new resource into their strategies. The prospect of losing car parking spaces tempered this enthusiasm, shifting businesses to be more cautious and reducing the number of strategies they took. The Regulatory Focus model of goal motivations although helpful in categorizing business goal motivations and goal strategies had reduced predictive power as businesses exhibited a reluctance to restrict their strategic behaviour around one goal.

Outcomes of the research are anticipated to help policymakers improve their sensitivity to the ways businesses develop competencies in using the value of new transport access and stimulate more interest in how small businesses matter to policy goal success.

Statement of Originality

This is to certify that to the best of my knowledge, the content of this thesis is my own work. This thesis contains no material previously published or written by another person unless due reference to that material is made. This thesis has not been submitted for any degree or other purposes.

I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis and sources have been acknowledged.

Claudine Jane Moutou

14 June 2013

Preface

A lot can happen in four years. Undertaking and, importantly, completing this study has been the longest goal-orientated decision that I have achieved. This research has sustained my interest for an unusually long time. My interest in the topic matter has been an accumulation of my academic and social interest in sociology, environmental studies, transport and history. The formation of the research topic is a product of countless conversations about why purposefully transforming society through policy is so difficult despite the fact that as human beings we are constantly adapting our environment and expectations in the pursuit of our changing needs. These conversations, many conducted with bike saint and fellow KSaver Fiona Campbell, inevitably turned to the discomfort and threat of imposed change and the conflict between individual and societal goal needs. A topic this study now contributes to.

There are a lot of people to acknowledge for their part in helping me attain my goal of pursuing this research. Thanks first go to those who played a role in making a doctorate degree a possibility. Danyelle Carter my boss at the then Department of Environment and Climate Change for tasking me to do the literature review on engaging small business in sustainability issues. Our then Director Dr David Blackmore who after reading it asked me if I had ever considered doing a PhD. Associate Professor Mehreen Faruqi, of the University of NSW who continues to have a positive impact beyond my Masters.

This research apprenticeship would not have been such a positive learning experience without the professionalism of my PhD supervisors. Thank you to my supervisor Associate Professor Stephen Greaves who was the first at ITLS to see me as a prospective PhD student, and Dr Sean Puckett's involvement early in my candidature. This PhD greatly benefited from the supervision of Professor Corinne Mulley. Her academic contribution began well before she accepted my compelling argument that she should take a more formalised role in my PhD. Corinne has been generous with her time, her energy, her wisdom and her friendship. Corinne you are a model supervisor, thank you.

I would like to thank ITLS Director, Professor David Hensher for welcoming a transport sociologist into the organisation and agreeing to purchase an iPad so that I could use it as a survey instrument. I am very appreciative of the generosity of the businesses and local government staff that participated in this study. I thank them for their time and sharing their

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Publications

The following publications were authored or co-authored on this thesis topic during my candidature.

Journal Article/s

Moutou CJ 2013 'Car parking matters: Adapting to changing customer mobility in urban neighbourhood town centres of an inner city area of Sydney', *Journal of Urban History*, vol. 39, (4), pp.690-708.

Conference Proceeding/s

Moutou CJ 2010 'Can using sociological theories on mobility and power help transport researchers to recognise local businesses matter?', *The Australian Sociological Association (TASA) Conference*, Macquarie University, Sydney, Australia, 9th December 2010

Moutou CJ 2009 'Car Parking Matters to Small Retailers: An Historical Case Study of Three Town Centres in Marrickville', *Proceedings of the First Academic Association of Historians in Australian and New Zealand Business Schools AAHANZBS Conference 2009*, Sydney, Australia, 15th December 2009

Conference Paper/s

Moutou CJ and Mulley C 2012 'Exhibits of business power: Case studies of business reactions to projects designed to enhance intermodal connectivity of their trading locations, *10th International Conference of the International Association for the History of Transport, Traffic and Mobility T2M 2012*, Madrid, Spain, 18th November 2012

Moutou CJ, Greaves SP, Puckett SM and Mulley C 2011 'Responses to sustainable transport initiatives: a survey of small business owners, *9th International Conference on Transport Survey Methods 2011 - "Scoping the future while staying on track"*, Termas de Puyehue, Chile, 18th November 2011

Moutou CJ 2011 'Changing 'motility' in town centres, *9th International Conference of the Traffic Transport and Mobility Association (T2M)*, Berlin, Germany, 9th October 2011

Moutou CJ 2011 'Changing 'motility' to town centres: an interdisciplinary approach to understand business owner responses, *Traffic Transport and Mobility Association (T2M) International Summer School*, Berlin, Germany, 6th October 2011

Moutou CJ 2010 'Designing research tools for collecting small business owner reactions to sustainable transport initiatives in their local town centres, *CAITR 2010*, UNSW ADFA, Canberra, Australia, 28th September 2010

Glossary and abbreviations

Antagonistic power is an aspect of the sociological power framework used by Avelino and Rotmans (2009) to describe power dynamics between two decision-makers. Antagonistic power is the power dynamic where a decision-making actor acts to disrupt or prevent the power of another actor. In this study business actions that encourage customers to use car parking are described as being demonstrations of antagonistic power as they are contrary to the sustainable transport policy goal.

Business Competitiveness (BC) is one of the attributes that businesses are known to perceive as being impacted, positively or negatively, by changes to access. Business perceptions about changes to BC are collected in the Town Centre Business Survey. See Section 5.1.2 for more detail.

Customer Attraction (CA) is one of the attributes that businesses are known to perceive as being impacted, positively or negatively, by changes to access. Business perceptions about changes to CA are collected in the Town Centre Business Survey. See Section 5.1.2 for more detail.

Customer Motility is used in this study to refer to the indicative proportion of customer trips taken by the sustainable transport modes of public transport, cycling and walking to the town centre. It is a narrower version of the concept 'motility', which is defined below.

Disturbance 1 is the goal disturbance to the accessibility options of the business street represented by Event 1 and Event 2 combined.

Disturbance 2 is the goal disturbance to business expectations about what customer values represented by Event 3.

Event 1 is first hypothetical scenario presented in the Town Centre Business Survey where respondents are instructed to imagine there is more walking, cycling and public transport access added to their business street. See Section 5.1.4 for more detail.

Event 2 is the second hypothetical scenario presented in the Town Centre Business Survey where respondents are informed that car parking had to be removed to enable Event 1. See Section 5.1.5 for more detail.

Event 3 is the third hypothetical scenario presented in the Town Centre Business Survey. Respondents are presented with one of two scenarios: GreenBizOp where customers are preferring to support green businesses or PetrolOp where customers are reducing car use in response to rising petrol costs. See Section 5.1.6 for more detail.

Local Government Area (LGA) is the third tier of government in Australia, also referred to as Local Council.

Motility is a term made popular by Vincent Kaufmann to describe the potential of mobility to provide both spatial and socio-economic opportunities. Motility is described as a resource that can be exchanged, denied and cultivated when the right access and skills are available. It is used in this study to examine how businesses capture value from town centre access features. See Section 3.2.2 for how Motility is incorporated into this study.

Prevention Focus is a dimension of Regulatory Focus which is motivated by security needs and exhibits vigilant strategies to attain goals. See Section 3.3.2 for more detail. In this study, Prevention Focus is colour-coded blue.

Promotion Focus is a dimension of Regulatory Focus which is motivated by advancement needs and exhibits eager strategies to attain goals. See Section 3.3.2 for more detail. In this study, Promotion Focus is colour-coded green.

Regulatory Focus Theory (RFT) is a theory about human motivations and behaviour created by Tory E Higgins (1996). There are two Regulatory Focuses: Promotion Focus and Prevention Focus. RFT is first introduced in Section 2.4.1 and Section 3.3 presents how it is used in this research.

Regulatory Fit is an indicator of how well an individual's Regulatory Focused goal-attainment strategies suit the Regulatory Focused goal-task. Compliance to the Regulatory Focus model is expected to be better amongst those with Good Regulatory Fit than those with Poor Regulatory Fit. See Section 3.3.3 for more information.

Sociological power framework is used in this research to introduce sociological understanding of how decision-makers mobilise resources to for the purpose of getting closer to their goal intent. The framework is adapted from the work of Avelino and Rotmans (2009) and provides categorisation of resources and types of power dynamics, see Section 3.4.

Synergetic power is an aspect of the sociological power framework used by Avelino and Rotmans (2009) to describe power dynamics between two decision-makers. Synergetic power is the power dynamic where a decision-making actor acts to enable or enforce the power of another actor in a supportive way. In this study, business actions that encourage customers to use new public transport, cycling and walking access improvements are described as being demonstrations of synergetic power as they are aligned to the sustainable transport policy goal.

Town Centre Attractiveness (TCA) is one of the attributes that businesses are known to perceive as being impacted, positively or negatively, by changes to access. Business perceptions about changes to TCA are collected in the Town Centre Business Survey. See Section 5.1.2 for more detail.

Town Centre Motility (TCMotility) is used in this study to assess and categorise the accessibility of the town centres in the study area by their potential to enable customer motility. Town Centre Motility is function of two scores: opportunities for sustainable travel (TCOpportunity) and barriers to car use (TCBarriers). See Section 3.2.3 for more detail.

Chapter 1   Introduction

The future is inherently uncertain and planning for policy success is no different. The complexity lies not just in the multiple paths to, or away from, the policy goal but also because there are various stakeholders that are affected and can impact the trajectory. The necessity of a functioning transport system in urban societies only adds to the policy pressure on transport professionals and the political decision-makers. As a former Transport Minister in the UK famously noted (cited by Engels, 2009 p.27):

> *"It's the most miserable job in government. Anything you do right, no one is going to know for 15 years. Anything you do wrong, they know immediately."*

One of the important issues that transport researchers face is how transport policy can be used effectively to influence the decision-making of the travelling public. This is an important issue for urban cities. Car-orientated infrastructure and the population's preference for car travel are increasingly ill-suited to a future where more people and companies expect to travel where and when they want quickly. In addition, increasing the appeal of sustainable transport modes over the private car has various benefits to society including increasing the efficiency of existing road infrastructure by diverting some personal car trips to public transport, and reducing environmental emissions per person-kilometre. There is broad-scale agreement amongst transport professionals and their political masters, hereafter referred collectively as transport policymakers, that increasing the accessibility of places by sustainable transport is an important means of reducing car dependency. Nevertheless, attempts to implement such sustainable transport policy initiatives are not without controversy fuelled by apparent community resistance.

This PhD research is not aimed at convincing a policy audience about the merits of becoming less car dependent. A strong evidence-based argument for this already exists. Instead the starting point for this research began by wondering what if policy attention turned to making suburban town centres less car dependent. What are the risks to the realisation of policy goal success, and what could help policymakers be better prepared for them? The research aim is to investigate what, if any role, smaller businesses would have on policy goal success.

1.1 Changing accessibility features of a town centre street

In Australia, suburban town centre environments are places distributed across the city that generate shopping, recreational, business and commuting trips. Their categorisation as economic centres is based on their spatial size, number of businesses and facilities, as well as transport connections (see Table 1-1).

Table 1-1 Hierarchy of local centres used in New South Wales (Source: NSW Government, 2010 p.259)

Local Centre[1]	Description	Transport features
Town Centres	A large group of shops and services, with a mix of uses and good links with the surrounding neighbourhood. It provides the focus for a large residential population.	Serviced by heavy rail and/or strategic bus and local bus networks. Some have ferry services. Have a walking catchment radius of approximately 800 metres.
Villages	A group of shops and services for daily shopping, with a mix of uses and good links with the surrounding neighbourhood.	Serviced by strategic bus and local bus networks as a minimum. Have a walking catchment radius of approximately 400–600 metres
Neighbourhood Centres	The smallest recognised centre type in this hierarchy. It is a small group of shops, typically focussed on a bus stop.	Serviced by local and/or strategic bus networks. Have a walking catchment radius of approximately 150–200 metres.

All categorisations of town centres are activity centres that generate trips. Making town centres more accessible by public transport, cycling and walking aims to make the mobility system of an urban city more sustainable (Cervero, 2002; Litman and Burwell, 2006; Curtis, 2008). Town centre environments in Australian cities are already connected places, with many centred around railway stations and along road corridors often with bus services (McManus, 2005). Increasing their accessibility appeal by sustainable transport modes is however part of a strategic aim to reduce levels of car dependence and reduce the negative externalities from car travel, as seen in international, state and local strategic policy documents.

Research focused on the implementation of sustainable transport policies in suburban town centre environments is useful for a number of reasons. Local centres are important to achieving neighbourhood level sustainability goals of liveable and connected communities. Local centres are conducive for encouraging people nearby to reduce their car use for short

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[1] Stand–alone Shopping Centres are positioned between Town Centres and Villages in the hierarchy. They have been excluded from this table as they are privately owned and often have their own parking.

trips. If more people travel to their local centre by sustainable modes, this would in-turn have system-wide benefits from reduced vehicle kilometres travelled, and reduced environmental externalities (Handy and Clifton, 2001a; McManus, 2005). Although the number and variety of town centres make generalising town centre experience of sustainable transport policy initiatives challenging, there is research value in understanding common phenomena. One common phenomenon investigated in this research is local business opposition to sustainable transport policies. Town centres have a large number of independent small business decision-makers who are dependent upon the accessibility features of a town centre street for their livelihood.[2] Customising initiatives to address local needs is a necessary but resource-intensive process. Understanding more about the basis for business opposition could help identify opportunities for policymakers to better anticipate and ultimately address local business concerns.

Sustainable transport policy interventions are designed to address the environmental problems of transport by changing 'normal' travel behaviours that are more compatible with visions for an equitable, accessible and environmentally friendly mobility system (Litman and Burwell, 2006; Banister, 2008). Travel behaviour policy interventions can be categorised broadly as either changing the access features of a destination, or changing the incentives for travelling. Table 1-2 is a list adapted from Gärling *et al.* (2002) of example sustainable transport policy interventions. The individual policy interventions are not new though the past policy implementations may have different policy goals. For example, pedestrianisation can be a solution for road safety of vulnerable users, regeneration of neighbourhoods, or reducing car traffic (Hass-Klau *et al.*, 1992).

Table 1-2: Two broad categories of sustainable transport initiatives (Adapted from Gärling et al 2002 p.60)

Destination focused (specific)	Traveller focused (general)
• Cost and time limitations on parking. • Reallocation of road space (e.g., the creation of bus lanes, or removal of parking). • Improved public transport – connectivity, frequency, speed. • Improved walking and cycling infrastructure. • Pedestrianisation of streets, town and city centres • Decreasing speed limits through traffic calming.	• Social marketing initiatives (e.g., Ride to work, & Walk to Work day) • Travel marketing and information campaigns. (e.g., TravelSmart) • Increasing costs of car ownership. • Increasing cost of fuel. • Road pricing. • Carbon tax.

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[2] There is no universal definition of 'small' business. In Australia, small business is defined as less than 20 employees. Small businesses account for approximately 91 percent of registered businesses in the Australian economy (Australian Bureau of Statistics (ABS), 2008).

Traveller-focused initiatives benefit from a system-wide implementation approach, administered for example through the tax system. Destination-focused initiatives can be applied at different spatial scales, such as city or street level. To be more manageable and less disruptive, the construction of physical infrastructure is often incrementally implemented – section by section. A town centre can be affected by both categories of intervention, though destination-focused interventions have more localised impacts, especially when other town centres within the area do not have the same treatment. Destination-focused initiatives need to be customised to the location, and are usually implemented by the local administrative authority. In Australia this responsibility rests with the local government authority (LGA), also known as the local Council. There are exceptions. If the location is claimed as significant to the state (for example transit orientated developments), or the nation (for example an airport development) different levels of government assume authority.

Changing travel behaviour with policy interventions is not dissimilar to changing purchasing behaviour with marketing. In both cases the individual traveller/customer has a goal (such as to buy something), and to achieve that goal they need to determine where to go, when to go and how to get there. The sustainable transport policy intervention, like marketing information, is intended to disrupt the 'normal' decision-making behaviour by introducing new information such as new transport options, new incentives or costs, or updated information on what options have changed – such as car parking. This conceptualisation of human decision-making behaviour is a goal-orientated model, and it has been used in policy, transport, marketing and business research to study individual and collective behaviour.

An individual's initial experience of a policy intervention may be disruptive and traumatic. Travellers may be inconvenienced if they were unprepared for a change in transport options or conditions, or resent having their decision-making power to choose where, when and how they travel restricted. This initial experience of individual disruption is intended to transition to a new regime of 'normality', with the time-taken for the community to adapt and accept policy initiatives used as a measure of policy success.

Businesses can also experience trauma from policy disruptions. Changes to the transport infrastructure in a local town centre, especially those that limit the availability of car parking, can raise anxiety amongst businesses if they are dependent upon access options being convenient and attractive to their customers. It is not customary for policymakers to consider the time-taken for businesses to adapt to changes to town centre infrastructure as a measure

of policy success even though the suffering of the business community is often used by the media as an indicator of policy contentiousness and failure. It is common place for news commentary on the implementation (or proposed implementation), of sustainable transport policies to include news about the stress and suffering experienced by local businesses whose livelihood has been disadvantaged. If transport policymakers are going to succeed in implementing initiatives to make their communities less car dependent, they need to know more about the level of resilience in their local business communities. Questions that policymakers should be asking include: Will the local business community adapt, and adapt quickly to the policy disruption?; Will the adaptive strategies chosen by businesses align with the policy goal, or will the strategies still presume their customers travel by car to the town centre?

Small businesses are found in large numbers in local town centre environments and help shape the distinctive 'flavour' or brand of local centres. Despite their large numbers, the representation of small business views in the policy process encounters a number of problems. Smaller business engagement in business chambers and peak organisations is not proportional to their numbers thereby requiring more one-to-one engagement. One-to-one engagement can be more resource intensive and especially with an ethnically diverse small business population. Translators and translated materials cost money but can also be difficult to provide for all languages. The pressures of running a smaller business, particularly constraints on their 'free' time, can make them unwilling to engage in policy consultation. There is a large turnover of smaller businesses, especially in the first two years and no shortage of new entrants into the market. This can lead to smaller businesses being viewed more as a population of individual business interests that are resource-intensive for policymakers to engage with. In contrast, the smaller population of large businesses are viewed as individual entities that are easier and more important to engage due to their scale of influence. While it may be more difficult to engage and address concerns of small business stakeholders, ignoring them should not be an option.

1.2 Investigating business reactions to access changes

This research is structured to investigate three research questions that will expand policy knowledge about how small businesses use, react and adapt to sustainable transport policy initiatives. The first research question draws on past experiences to understand how businesses have adapted to changes in how customers have travelled to their town centre. The

second research question delves deeper to investigate what businesses are actually reacting to when they oppose changes to the accessibility options of their town centre. The third research question focuses attention on how business reactions, successful or otherwise, may affect the realisation of policy goals. Specifically, the three research questions are:

Q1.   To what extent do businesses perceive changes to transport access options in a town centre disrupts their business goals?

Q2.   Are businesses willing to adapt to changes in transport access and trip-making to town centres, and do their goal concerns and goal pursuit competencies have an influence?

Q3.   What are the implications for the realisation of sustainable transport policy goals if business owners' reactions do not align with policy intentions?

To investigate these three research questions this study uses a multi-method research approach of historical analysis, focus groups and an experimental survey incorporating concepts from an interdisciplinary literature. The study was conducted in an inner city region of Sydney, Australia administered by three LGAs. The study area was chosen as parking supply shortages, land use constraints, and traffic congestion have led each of the LGAs to consider, and sometimes controversially implement, sustainable transport initiatives in their town centres.

This thesis is structured in the following way. Chapter 2 identifies specific gaps and assumptions in the literature that have served to relegate small business experience of sustainable transport policy disruptions as a secondary policy concern. Chapter 3 outlines the research objectives to address the gaps and how psychological and sociological theoretical perspectives are used together to answer the three research questions. Chapter 4 addresses the first research question in two parts. Firstly it uses a historical case-study to identify strategies used by businesses in the study area to keep their local centres and businesses competitive in response to increasing customer car use. Secondly, insights from a series of local government focus groups are used to help contextualise the experimental survey to the needs and concerns of businesses within the study area. Chapter 5 presents the design of the Town Centre Business Survey to test the research hypotheses that will enable the study to answer the second research question. Specifically the Town Centre Business Survey is used to test if Regulatory Focus Theory (RFT), a psychological theory about goal motivations and strategies, has relevance in an applied situation such as when businesses are facing changes to

the access of their business street. The results of how businesses responded to the Town Centre Business Survey are presented in Chapter 6. The discussion in Chapter 7 focuses on the policy implications of this study, the third research question and how the use of interdisciplinary theories and focus on local centres could be useful for policy analysis. The concluding Chapter 8 reflects on the outcomes of the research investigation, and what is required in the future to advance understanding of the policy opportunity to tap into the adaptive capacity of local small business populations. Appendices at the end of the thesis provide supplementary information about the research process.

Chapter 2   Perspectives on business opposition

The relationship between transport connectivity and the viability of businesses is a well established area of research interest. It has been fundamental to economic and geographic influences on urban planning policy. It has influenced the redesign of land use to accommodate car parks, justification for the pedestrianisation of city streets, and a central component of the funding of transit-orientated developments. The transport literature encapsulates various interdisciplinary perspectives, and this has been its strength.

Sustainable transport connectivity developed prominence as a policy issue after the Earth Summit in 1992 (UN Conference on Environment and Development, 1992). Policy interest in 'sustainability' has helped to legitimise public transport, cycling and walking as desirable modes of transport because of their environmental, economic and social benefits to society. Transport policy research has been important in educating policy audiences about the merits of sustainable transport and how to incorporate sustainability indecisions about land use and economic activity. Transport research has also been successful in drawing on theories from other disciplines to understand individual and organisation travel behaviour and how to change it through regulation, market-incentives and infrastructure design. Transport policy research needs to continue having a positive influence as local authorities adopt sustainable transport policy initiatives and apply them to urban areas, large and small.. Understanding how business opposition may affect the success of sustainable transport policies is needed to ensure the success of adopted policies.

This chapter examines a broad interdisciplinary literature to identify why business reactions are not a focus and what may be needed to elevate business reactions as a policy concern. The chapter is organised as follows. The first section critiques the use of goal-orientated models in policy conceptualisation. The second section examines the use of policy appraisals and their limitations for understanding business perspectives. This is followed by a section examining the literature on the value of access to businesses and a section which focuses on the literature on decision-making and smaller businesses. The penultimate section isolates the research gaps identified in this critical review prior to concluding with the research objectives that will allow this study to address the research gaps.

2.1 Goal-orientated decision-making

Goals are a construct important in psychological studies of motivation. Goals are used by individuals to direct or guide their behavioural actions to attain or avoid a future outcome (Elliot and Fryer, 2008). Studying goal-orientated decision-making can also provide a useful means for studying how behaviour alters as individuals encounter disruptions to their goal pursuit (Gärling *et al.*, 2002).

In a goal-orientated model, new information inputs are processed drawing on existing knowledge, skills, circumstances, and motivations to assess how far or close the individual is to the desired goal – the reference point. The output of this assessment is a decision how to (or not to) react. The decision is then enacted on the environment, and an assessment of the effectiveness of the action enters the loop again as new information. The process is therefore one which adapts to new circumstances, such as disturbances in the environment and incorporates learning from experience. How an individual self-motivates themselves in goal-orientated decision-making is a point of interest in psychology. An individual's assessment of various factors, including how they interpret, value and rank available information influence the choice of action, and this may vary between individuals and vary based on the context. Referred to as 'self-regulation', the effectiveness of people to self-regulate to achieve success is a function of what resources they have, their motivations and the strategies they use (Brockner, Higgins and Low, 2004).

Although the goal-orientated model does not account for all the complexities of human decision-making it does aid the study of decision-making and its sensitivity to manipulation. For example, marketing researchers have applied the goal-orientated model as a framework to understand how to influence customer decisions on destination choice, while transport researchers have focused their attention on how to influence travel decision-making. In marketing research, attributes known to be valued amongst customers, such as convenience, price, distinctiveness and service are manipulated to test the effect on customer's destination choices, buying behaviour and loyalty (see for example Rhee and Bell, 2002; Ibrahim and McGoldrick, 2003; Jones, Mothersbaugh and Beatty, 2003; Dellaert, Arentze and Timmermans, 2008; Reutterer and Teller, 2009). Transport researchers likewise use a goal-orientated model to conceptualise how an individual may respond when confronted with different travel disruptions, and use the information to model patterns of behaviour at the system-level. Gärling *et al.* (2002) used it to conceptualise how individuals may respond to

demand management measures, and Stern, Salomon and Bovy (2002) for motorists reviewing their commitment to travel when traffic congestion is affecting their punctuality.

Businesses responses to sustainable transport policies have also been studied using goal frameworks. Examples include studies about how businesses respond to policy restrictions on freight deliveries (Hensher and Golob, 1999; Holguin-Veras, 2006; Quak and de Koster, 2007), and regulatory changes to the provision of employee parking (Rye and Ison, 2005; Whitehead, 2005). A common feature of these studies is they focus on the disturbance of mobility goal needs of customers, employees and deliveries, not the accessibility goal needs of businesses. The accessibility needs are treated as secondary impacts or outcomes as they are viewed as an indirect effect of customer decision-making responses to the disturbance (see Table 2-1). The limitation of such an approach is that it draws focus away from how businesses' decisions about attracting customer trips may have implications for the creation of customer mobility needs, and in turn policy decisions about traffic management.

Table 2-1: How disturbances to access differently affect goals of actors (Source: this research)

Decision-making Actor	Goal	Wants	Goal-orientated decision	Type of needs
Policymaker	Society	Traffic flow	How to manage travel demand	Mobility
Traveller/Customer	Personal	Trip choices	How and where to travel	Mobility
Town centre business[3]	Business	Trip choices	How and when to deliver	Mobility
	Business	Customer flow	How to attract customer trips	Accessibility

Adapting the goal-orientated framework to incorporate the disturbance to businesses' accessibility has implications for both the individual and system-level conceptualisation of policy disturbance. At the individual decision-making level more is needed to understand the factors being assessed by businesses, as these are distinct from factors at play in travel decisions. Questions include: how are businesses valuing accessibility in relation to their business goals, and how do these valuations vary over time? What actions do businesses take to realign their situation with their goals? At the system-level, the goal-orientated framework needs to be able to cope with the disruption event having different implications for the goals

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[3] Businesses may also be concerned about changes in access affecting employee travel, especially if attracting and retaining employees is important to the competitiveness of the business. For this research on town centre businesses, employee travel is considered less relevant as it is a more significant issue for businesses with large numbers of employees, and the decision to travel is largely determined when an employee accepts the employment contract and therefore different to customer travel.

of policymakers, travellers and businesses within the town centre, as these may lead to different goal-orientated decision-making behaviour. The framework needs to have the capacity to answer more complex questions, for example, how do businesses' choice of actions interact with the goals of customers and policymakers? How regularly does a business decision-maker change their course of action, and what instigates a review? Can business actions be anticipated, and if so how?

2.2 Appraisals of sustainable transport policy interventions

There are a number of ways that policymakers have planned and evaluated the success or otherwise of policy interventions. Appraisals can vary by their purpose, the sources and types of data, and the allocation of decision-making power. A review of the methodological issues and their effectiveness in delivering both a small business and policy perspective is discussed below.

2.2.1 Purpose of appraisals

In evaluating the success or otherwise of a policy intervention, policymakers are primarily concerned about measuring changes in traffic flow and the economy at the system-level of the specified geographical region (Salomon and Mokhtarian, 1997; Taylor and Ampt, 2003). Impact assessments help policy decision-makers anticipate policy outcomes, political acceptability and compare policy features over varying time horizons (Link, 2005; Cavill *et al.*, 2008; Marchau, Walker and van Wee, 2010). Impact assessments and policy appraisals are not designed to help businesses evaluate the impact of a policy intervention on their business. Nevertheless they are relied upon by policymakers to communicate and justify policy intervention to the local community.

Policy appraisals are not good at acknowledging the conflict between societal-level goals pursued by policymakers and the individual-level goals of local businesses. Policymakers are aware that achieving policy goals may not be in the short-term interests of individual businesses. Changing the accessibility of a destination has the potential to disrupt a flow of customers and therefore business viability (Hass-Klau, 1993; Still and Simmonds, 2000; Kerley, 2007). Individual travellers/customers may not change their choice of transport mode and instead may choose to change their activities and destinations (Salomon and Mokhtarian, 1998; Hensher and King, 2001; Gärling *et al.*, 2002). Whilst it may not be the policy intention to reduce customer flows to a town centre, such an outcome could still be viewed

positively by policymakers. Customers' new choice of activities and alternative destinations may require less vehicle-kilometres; it may disperse traffic and customer spending to other parts of the jurisdiction. Policy appraisals do not reconcile this mismatch of short-term business and long-term policy perspectives well. The focus of policy appraisals on societal-level needs at the expense of business goal concerns, contributes to businesses resistance.

It is in the interests of policymakers to manage and minimise business resistance by addressing business concerns (Kerley, 2007; Rye *et al.*, 2008). It is complicated. Not all goal conflicts are reconcilable. The interdependencies between individual-level business goals and societal-level goal interests are many and subjectively valued. For example, businesses may be in agreement about the importance of a societal-level goal, such as reducing pedestrian fatalities, but be against the infrastructure solution if it is perceived as unfairly disadvantaging their own business. The success of policy initiatives depends upon many factors and these can be sensitive to changing circumstances and difficult to isolate (Hass-Klau, 1993). For instance, having a range of transport links does not in itself make a town centre attractive, it requires appealing businesses to attract customers. Yet having a town centre become so popular it becomes associated with traffic congestion, can paradoxically make it an unappealing destination for customers. A policy framework that accounts for a more complex system of interactions and interdependencies needs to incorporate a business perspective. Incorporating different types of adaptive business behaviour would help make policy appraisals more robust, but also increase understanding of business concerns and motivations that may be at conflict or synergy with other goals.

Frameworks exist to identify, analyse and communicate the role of different social actors and their capacity to influence policy outcomes. Some sustainable policy researchers have for example used Societal Transitions Theory [4] as a framework to communicate how niche interests can develop into new cultural norms or 'regimes' through the agency of stakeholders and regulatory mechanisms (Rotmans, Kemp and Asselt, 2001; Pel and Boons, 2010). Societal Transitions Theory has emerged from integrated environmental assessments and draws on complex system theories, social theory and the literature on governance (Avelino and Rotmans, 2009; Frantzeskaki and de Haan, 2009). It has been used to identify what

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[4] Societal Transitions Theory is also known as Transitions Theory. Societal Transitions Theory has been used to avoid confusion with Transitions Theory in the field of counselling psychology which is about differences in how individuals cope and adapt to change (see Schlossberg, 1981).

changes might need to be cultivated at, for example, the cultural, technological and regulatory level to achieve an alternative future scenario – such as a society where using sustainable transport is the norm. It is another example of a disturbed goal-orientated model, as a process of change is said to be triggered when there is a mismatch in the culture, structure or practices of society (Frantzeskaki and de Haan, 2009). Using a framework that helps policy appraisals illustrate the interdependence of policy goals and business goals may be more effective in minimising business resistance, but also potentially identify shared benefits. Enhancements to framework complexity need to be balanced with the needs of the communication and policy appraisal task to avoid the various interdependent relationships being too resource intensive or too difficult to interpret meaningfully (Langley, 1999).

2.2.2 Sources and types of data

The types of data used to inform assessments influence the potential saliency of appraisals to a business audience. Policy assessments have come to rely on aggregate system-level datasets on industry turnover, commercial rents, employment and traffic as these are more easily acquired, but they are less suitable in addressing localised concerns (Preston, 2001; Laird, Nellthorp and Mackie, 2005; Whitehead, Simmonds and Preston, 2006). Meaningfully disaggregating a macro-level perspective to the local scale is difficult without information on how transport connections, patterns of travel behaviour, and the attractiveness of businesses vary amongst town centres within the bounded region. Destination-specific appraisals of transport projects, such as those recommended in guidance from the Transportation Research Board (Forkenbrock and Weisbrod, 2001) are more effective in capturing the localised social and economic impacts as they include surveys of businesses in the affected area.

Business populations can be reluctant to participate in surveys due to concerns about commercial-sensitive data, time constraints, and mistrust about the intent of the research. Surveys conducted to collect information to inform transport policy issues can be particularly difficult if businesses perceive the outcome of the research could negatively impact business operations or worse, their livelihood. The reluctance of businesses, especially smaller businesses, to participate in research has in turn made them an unappealing population to target for academic transport research. Consequently much of the academic transport research tends to focus on medium or large-sized businesses as they are not only a smaller in number but they also have greater individual trip-generation capacity and economic output. This approach may be resource-efficient but it is not representative. Researchers with a focus on

small business research caution generalising businesses behaviour when business size has not been taken into account (Schwartz, Birch and Teach, 2007; Runyan and Droge, 2008; Mullen, Budeva and Doney, 2009). Small shop-front businesses exist in large numbers in urban town centres, and play an important role in providing variety and choice. The large number of small businesses is itself grounds for greater research attention. Moreover, understanding small business experience of disturbances to transport access could help enhance the transferability of research to the large number of suburban town centre environments where small businesses predominate (Runyan and Droge, 2008).

Surveying a large heterogeneous population of small businesses is not just resource intensive, it is constrained by the availability of reliable sampling frames, willingness of businesses to share objective detailed data, poor response rates, linguistic barriers and time pressures faced by business owners (Runyan, Droge and Swinney, 2008). Nevertheless, attitudinal surveys and consultations of the local business community are commonly conducted by local government as part of the preparatory and/or evaluative assessment of specific transport projects (Forkenbrock and Weisbrod, 2001). The survey becomes part of the consultative process resulting in a tendency to approach all businesses to participate, rather than a random sampled population. Attempting to collect data from all local businesses requires an investment of public resources that may have limited value beyond the case-study area or beyond that point in time. Moreover, care needs to be taken in assuming respondents' views are representative of the target population, especially where response rates are low as over-representation of a particular viewpoint or under-representation of a business type, can indicate strategic bias at play (Hass-Klau, 1993).

Point-in-time business surveys are less useful for appraising impacts over a period of time because they are not equipped to observe the continuing adaptive process of business performance, opinions and experiences. Ex-ante surveys encounter problems with hypothetical and strategic bias, made worse by the anxiety businesses may anticipate about the intervention. The timeliness and long-run timeframes of ex-post surveys are also an issue. The appraisal may come too late for those struggling to survive, and the exclusion of businesses who have moved or closed down restricts the ability of the survey to reflect reality. Furthermore, without both ex-ante and ex-post surveys the research may still struggle to alleviate business concerns (Still and Simmonds, 2000; Marsden, 2006). Business surveys

that focus not just on the causal relationship between input and outputs but also the decision-making process in-between are needed to increase the versatility of these appraisals.

Langley (1999) describes the objective of process research is to describe 'how' and 'why' a sequence of events and rationale lead to an outcome, while variance research is focused more on explaining 'what' caused what and by 'how much'. Both have value in the study of small business behaviour and transport behaviour. Bradley (2006) suggests collecting process variables in transport research could reveal factors influencing the unexplained variation in quantitative choice models such as the role of interactions and constraints, and unintended consequences of policies and actions. Collecting data about the iterative process of goal-orientated decision-making by a sample of business owners adds to the potential complexity of policy data analysis and insight into business reactions under changing circumstances (Langley, 1999).

Process data was collected by Holguin-Veras (2006) in a study of business response to a hypothetical restriction to time-of-day deliveries in New York. The collection of process data about the decision-making process demonstrated that, how businesses adapted to changes was influenced by their assessments of the actions of other actors, such as competitors and their business-customer or supplier. For instance, they found when delivery businesses were motivated by concerns about competitors, they tended to rationalise it was better to absorb the cost of parking fines rather than change their deliveries, or increase their prices. Moreover, collecting process data rather than simply the decision-making outcome, allowed Holguin-Veras (2006) to observe business behaviour in relation to their specific business goals. Data from the study was later used to model business decision-making to inform policy assessments (see Silas and Holguin-Veras, 2009).

The use of multiple hypothetical scenarios has been used as an alternative to studies focused on a real event. Whitehead, Preston and Holvad (2005) used a hypothetical scenario of congestion and parking charges to collect business expectations about economic impact over a 24-year time horizon on various business sectors of Nottingham.[5] Collecting data about multiple periods allowed incremental economic change and adaptation to be observed over a

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[5] This study used a Delphi panel of business experts. The Delphi method involves collating data collected from participants and then recirculating the information to the panel. This process is aimed at validating the data and determining what is the consensus viewpoint.

longer-time frame, as well as interdependencies amongst different business sectors (see also Whitehead, 2002). This helped present a business perspective that could influence policy considerations, albeit of a sectoral perspective rather than that of individual businesses.

Hypothetical scenarios combined with the collection of process data can increase the versatility of business surveys to inform how policy disturbances affect businesses under different conditions, outweighing concerns about hypothetical bias. Hypothetical bias is a concern in research because respondents stated action in a hypothetical scenario may not match their actual action in real life. If the research objective is to collect process data about adaptive decision-making behaviour, this should be less of a concern. Hypothetical scenarios provide respondents with a 'safe place' to react and revise decisions on controversial issues. At the same time, hypothetical scenarios provide policymakers insight into different parts of the iterative decision-making process of businesses. Hypothetical scenarios can also broaden the potential pool of respondents to those not directly affected by the policy intervention, subject to the hypothetical scenario remaining a salient topic to the respondent. Therefore, business decision-making process data from hypothetical scenarios could help make policy appraisals more effective and efficient in assessing how business reactions to sustainable transport initiatives may influence policy outcomes.

2.2.3 Decision-making power

It can be hard to shift strongly held opinions. Despite the evidence not being conclusive, and in some cases contrary, studies consistently report businesses believing that parking restraint reduces economic vitality (Still and Simmonds, 2000; Marsden, 2006). If policymakers are to pursue a vision of local centres being places accessible by public transport, cycling and walking they will need to overcome business resistance. Addressing issues of business resistance draws attention to issues of power and influence, which are phenomena of interest in a sociological analysis.

Transport policy appraisals can vary in how they frame the decision-making power of small businesses. At their worst, appraisals can frame small businesses as passive beneficiaries of changes in customer travel behaviour. More often, appraisals frame small businesses as a stakeholder group whose secondary impacts need to be managed to safeguard policy success. Examples of real project appraisals framing small businesses as stakeholders include a review of pedestrianisation projects in the UK and Germany and their affect on retailers (Hass-Klau,

1993), consultation with businesses on parking policy changes in Edinburgh (Rye *et al.*, 2008), a new Metro in Seville (Castillo-Manzano and López-Valpuesta, 2009), and bike lane construction in San Francisco (Drennen, 2003), Toronto (Clean Air Partnership, 2010) and Vancouver (Stantec, 2011). Such studies typically involve assessing business views against data collected about actual customer travel behaviour to verify if business concerns are founded.[6] Evidence collected helps evaluate business concern, but it can also provide a basis for modifying elements to mitigate issues raised so that the project can proceed. The power to change the situation is conceptually constrained to the policymaker in this top-down policy model with the adaptive power of businesses to review, reassess and change a course of action being overlooked.

It may not be in the long-term interests of policymakers if compromises are made to appease business concerns (Litman and Burwell, 2006; Banister, 2008; Rye, Gaunt and Ison, 2008). Incremental change can be more appealing to businesses though financially and practically difficult for administrators. For instance, concessions made on how much to price parking can compromise the viability of sustainable transport initiatives designed to be self-funding by hypothecating charges on car use (Shoup, 2005; Whitehead, Preston and Holvad, 2005). Incrementally adding physical infrastructure to support sustainable transport without reducing car parking may not always be possible. For example, it may be necessary to remove car parking spaces to extend a bus stop or expand a pedestrian area if there are spatial constraints or safety concerns. If businesses are successful in keeping the supply of car parking, the issues with car congestion that precipitated the policy to increase sustainable transport options will remain unaddressed. If the desired policy outcomes depend upon the adaptive capacity of businesses, the policy framework needs to be able to account for the different ways businesses may exert their power to achieve their business goals under the changed conditions.

There are advantages in understanding how businesses take action to protect or pursue their goals when accessibility is changed. Firstly, business individuals would be recognised as actors whose actions, individually and collectively, may aid or hinder the realisation of policy goals. That is, the power of business actors would be acknowledged as having a potential effect on how customers travel. Secondly, how businesses chose to react can be understood as

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[6] The type of concerns raised by businesses, justified or otherwise, is the focus of the next section.

an outcome of processing information about the disturbance in relation to their goals. A policy framework that recognises the range of potential decision-making power of businesses to affect change at various scales should be able to provide a more complex analysis of what transitional behaviour needs to be cultivated for the realisation of policy goals.

Figure 2-1: Conceptual model of individual goal-orientated decision (Source: Adapted from Gärling et al. (2002) for this research)
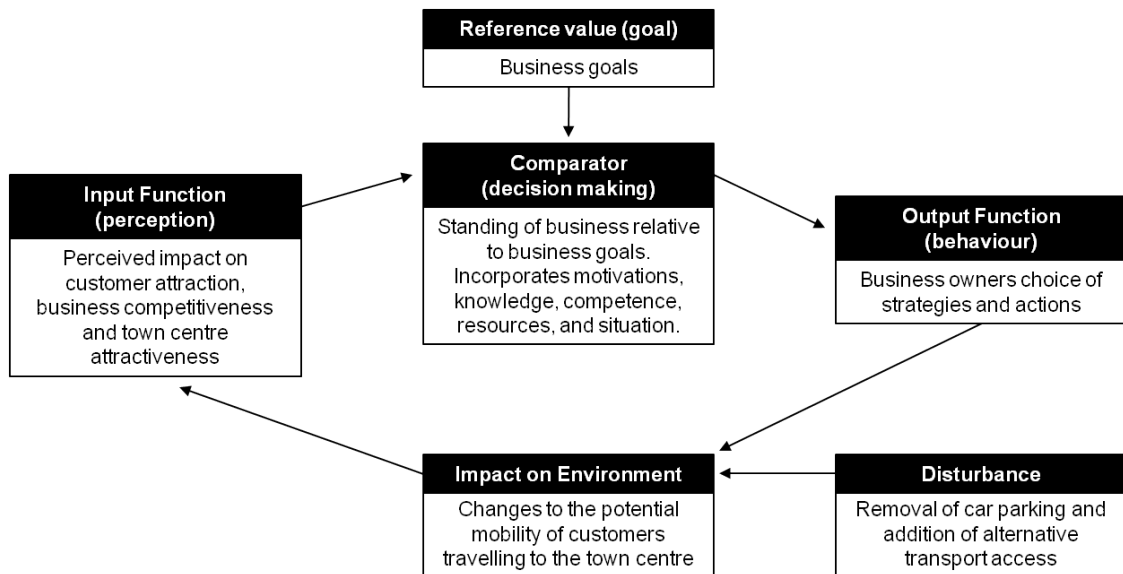
Figure 2-1 adapts Gärling *et al.* (2002) to conceptualise the goal-orientated decision-making process for a business owner contending with a disturbance to their accessibility and therefore their business goals. Reactions of businesses can be viewed as an iterative process. Information about changes to the environment as well as the effectiveness of past business actions are continually being reviewed and judged for their potential to help or hinder the achievement of business goals. The collection of process data about the decision-making process helps to observe a more complex range of business behaviour, including that which may be acting against policy interests. As policymakers' intent is to change customer travel decisions, there is a risk that the achievement of policy goals could be compromised by the way businesses choose to adapt to the disturbance. Knowing the extent to which sustainable transport policy goals are dependent upon businesses acting in certain ways would be helpful.

This section reviewed the methodological constraints in the literature that are a barrier to understanding and assessing business responses to policy disturbances. The next section focuses on what is known about the meaningfulness of accessibility to businesses, and how businesses value it.

2.3 The value of accessibility to businesses and their customers

Both businesses and customers use the accessibility features of a town centre to fulfil their desired goals. The way businesses and customers use access and value access is different but also interdependent. Judgements about the availability of parking and public transport, for instance, may change based on time-of-day, length-of-stay and purpose for trip. Aside from their own mobility needs, business owners and managers are also routinely evaluating the accessibility of the town centre for their business needs. Events such as a change to the accessibility options of a business' town centre environment are likely to instigate a revaluation of accessibility value amongst affected businesses.

2.3.1 Inherent and comparative value of accessible locations

Access is important to businesses as it makes centres attractive, businesses competitive and helps attract customers (Warnaby, Bennison and Davies, 2005; Reimers and Clulow, 2009; Reutterer and Teller, 2009). Changes to the access features of a town centre, such as the supply of parking or the availability of public transport, change both the inherent and comparative advantages of a location. The inherent value of a location is those aspects that are relatively fixed and easy to measure objectively (e.g. number of parking spaces, public transport options, etc.). The comparative advantages are, in contrast, subjective assessments as they relate to the potential value to the customer or business and the relative value in relation to other business competition. Changing the inherent and comparative advantages of a location affects the attractiveness of a town centre and the businesses contained within it (Warnaby, Bennison and Davies, 2005).

It is known that when a business owner decides where to locate their business they consider the inherent and comparative value of transport access (Hunt, 1997; Netz and Taylor, 2002; Theodoridis and Bennison, 2009). Locating the business within a cluster of attractive or complementary businesses increases the capacity of the business to benefit from the flow of customers attracted by the collective pull of the agglomeration (Hotelling, 1929; Teller and Reutterer, 2008). The position within the cluster, in relation to competitors and proximity to points of access (such as parking, public transport, and pedestrian traffic) can also have an effect on the businesses visibility and convenience to customers (Hass-Klau, 1993; Thomas and Bromley, 2003; Reimers and Clulow, 2004; Teller and Reutterer, 2008; Clarke and Banga, 2010). For example, the characteristics of optimal location for three types of

businesses in a strip shopping environment are shown in Table 2-2, where customer convenience and customer flow are to be maximised (Reimers and Clulow, 2004). While the inherent value of the accessibility of a business location may be relatively constant, the comparative value is subject to changes in customer preferences, and changes in business competition.

Table 2-2: Ideal location for fashion, Food Service, Food and Health Stores (adapted from Reimers and Clulow, 2004)

Business type	Ideal location[7]	Rationale
Fashion	Core	Act as trip generators to a centre. Works optimally as a cluster as customers interested in comparison shopping. Distinction made between value and quality of fashion goods on atmosphere and appeal of town centre.
Food Service - Cafes	Core	High flow of customers distributed across the day. Popular with customers. Can contribute positively to atmosphere. Supports multi-purpose shopping.
Food Service - Takeaways	Intermediate	Peak flow of customers at meal times, other times quiet or closed. Easy access, such as walking or parking convenience important for customers. Too many take-aways can detract from quality of town centre.
Food Service - Restaurants	Periphery	Peak flow in evening, other times of day can in effect be 'dead space'. Optimally located near entertainment businesses like cinemas. Can contribute positively to atmosphere and quality of town centre.
Food and Health Stores	Core and Intermediate	High flow of regular customers. Supports multi-purpose shopping. Most effective when clustered with other similar businesses. Convenience to transport access point (e.g. car park) important due to size and weight of purchases.

2.3.2 Fluctuations and subjectivity of accessibility value

Customer valuations of access are subjective and context-specific and they can change over time. The type and amount purchased, time-of-day, and time-budget may induce different customer needs for transport access (Marsden, 2006; Pan and Zinkhan, 2006; Kerley, 2007; Rye *et al.*, 2008; Reutterer and Teller, 2009). Surveys of customers confirm that the availability of convenient low-cost and easy to find customer parking is highly valued,

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[7] The core, intermediate and periphery areas vary for irregular shaped shopping environments, such as that found in ribbon or strip shopping (see for example Reimers and Clulow, 2004).

particularly for weekly shopping trips (Still and Simmonds, 2000; Marsden, 2006; Rye *et al.*, 2008). Individuals have also been found to value alternative transport options, such as public transport, even when they do not intend to use it often (see for example Beirão and Sarsfield Cabral, 2007).

Individuals without access to a car value accessibility differently to car owners. If walking to a preferred shopping destination is not possible then public transport may be valued as a necessity but also a constraint to how often and when a person travels. Where public transport and safe cycling routes exist, these are more likely to be chosen as convenient options for travel if the individual has knowledge and skills to use them (Rose and Ampt, 2001; Taylor and Ampt, 2003; Heinen, Wee and Maat, 2010). The importance of familiarity in forming preferences is also seen in studies assessing how often customers choose local shopping, versus shopping centres, versus strip shopping (Handy and Clifton, 2001b; Reimers and Clulow, 2004; Teller and Reutterer, 2008; Reimers and Clulow, 2009). As the demographic characteristics of the population change over time, the transport needs and preferences for types of access are also likely to change (Anable, 2005; Beirão and Sarsfield Cabral, 2007).

The crux of business concerns about transport accessibility features changing centres around their ability to attract customers and remain competitive. Business views about sustainable transport policy interventions have been collected in a range of studies, and consistently businesses have been reported as raising concerns that customers will be deterred if parking becomes too difficult to locate, too costly, or too time-restricted (Whitehead, Preston and Holvad, 2005; Whitehead, 2005; Rye *et al.*, 2008; Stantec, 2011). These concerns are heightened when nearby centres have unchanged or cheaper car parking. The convenience value of a business is thought to reduce as walking distance to parking increases (Reimers and Clulow, 2004; Teller and Reutterer, 2008; Castillo-Manzano and López-Valpuesta, 2009; Stantec, 2011). Even in the less car-centric environments, such as found in Europe, businesses are observed to still be reluctance to support pedestrianisation projects despite the strong evidence that they increase the pedestrian flow and increase retail profitability (Hass-Klau, 1993). The perceptions of businesses about the convenience value of public transport are also a function of proximity but also their assumptions about the transport modes used by their customers. For instance (Castillo-Manzano and López-Valpuesta, 2009) observed that businesses close to new Metros had valued the convenience of the new asset lower if they also had customer parking nearby. The expectations of businesses do not always reflect

customer travel behaviour. Studies that have compared business views with data from customer travel surveys show businesses having a tendency to over-estimate car mode share and the number of out-of-area customers (see for example Drennen, 2003; Jones, Roberts and Morris, 2007; Rye *et al.*, 2008; Clean Air Partnership, 2010; Stantec, 2011). To remain competitive after sustainable transport initiatives are implemented, businesses will need customers to realise the attractiveness of new transport options.

Businesses do not operate in a static environment. They are always contending with fluctuations in customer preferences and market competition and the need to adapt. The implementation of a sustainable transport policy intervention in a town centre environment may be a dramatic change event that simultaneously changes the comparative and inherent value of transport accessibility to a business and their customers. The frameworks used to conceptualise the effect of this change event need to recognise that a business individual's goals, competencies, values and experiences will influence how they value access.

2.3.3 Conceptualising the relative value of accessibility

An alternative approach to conceptualising the changing and subjective value of accessibility emerges from the field of mobility studies. Mobility studies, like transport studies, is interested in the multidimensional phenomenon of movement though the foci and disciplinary perspectives are different. Transport studies can be described as being shaped by economics, geography and engineering concerns about the provision and demand of transport. Mobility studies, in contrast, have been shaped by sociological and historical research concerns about how movement and travel change experience of culture and society. The study of mobility and access are not constrained to the spatial dimension. It can also include the study of the everyday social dimension – what mobility and access allows people to do.

Kaufmann (2002) argues the conceptual framework of 'motility' is appropriate for those interested in both the study of mobility in a geographical and social space.[8] Motility or 'potential mobility' reconnects the spatial component of what mobility does (move and displace) with the social component of what it enables people to do when they have the access, competencies and the intent to act or appropriate these potential mobility components

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[8] Motility is a term that Kaufmann popularised but that originally emerged from sociological discourses by Zygmut Bauman and John Urry about how technological advances have changed how people experience and conceptualise travel, distance, space, time and opportunities (Kaufmann 2002).

(Kaufmann, Bergman and Joye, 2004). Motility can be possessed, denied, exchanged and transformed to provide access to a field of spatial and social opportunities (Kaufmann, Bergman and Joye, 2004). In that respect, motility is described as another form of resource or capital. Study of the exchange of motility or mobility capital can centre on actors, networks, institutions, as well as culture and society (Kaufmann, Bergman and Joye, 2004) .

There are advantages in using the concept of motility in the context of a town centre environment and more specifically the street space outside shop-based businesses. Motility can be used for conceptualising how people value accessibility features, even those not intending to use it to satisfy their mobility needs. It has the flexibility to recognise that the needs of businesses, customers, and policymakers can be of a socio-economic nature, not just of the spatial dimension of movement. The definition of motility as an exchangeable resource also provides opportunities to consider how the value is moving between the micro-level sphere of an individual to the meso-level sphere of a town centre and the system-level sphere of a jurisdiction or region of society. Therefore motility could be a means of addressing the difficulties of studying the impact of accessibility disturbances to businesses within a goal-orientated policy framework normally reserved for considering the impact of the disturbance to customers' trip-making decisions.

There have been only a few studies published in English that have used the concept of motility.[9] Witter (2010) used motility as an over-arching framework to discuss issues of social exclusion arising from the confusion and unpreparedness of the public to cope with the implementation of a reorganised public transport system in Santiago. Flamm and Kaufmann (2006) conducted a qualitative study to analyse how people perceived access, competence and appropriation as enabling personal freedom. Rérat and Lees (2011) used motility to examine the accumulation and use of social and spatial mobility associated with the locational advantages of living in the gentrified city core of Swiss cities. Although these three studies all focused on understanding motility in the context of an individual's ability to travel, the motility concept can also be applied to those who are not travelling but are being accessed – such as businesses in a local town centre.

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[9] Kaufmann has published in English and French publications. The extent that the motility concept has been taken up internationally has been difficult to assess.

There is no standard approach to the implementation of the motility concept and how to measure the exchange of motility as a resource. This is not helped by the literature studying motility at different scales, and the terms 'access', 'competence' and 'appropriation' ambiguously encompassing elements that are already well defined in the extensive technical vocabulary of transport studies. A sociological definition of resources is that they are power-neutral own-able objects that become power-laden when mobilised by an actor (Avelino and Rotmans, 2009). This definition of resources could be helpful in developing a practical way to measure the motility concept. If the full value of the motility concept is to be realised, more research is needed to understand how motility as a resource is exchanged between people, and between spatial and social mobility dimensions.

2.4 The study of business decision-making about accessibility

The complexity of the decision-making process has resulted in most studies about how businesses respond to changes in accessibility focusing on components of the goal-orientated decision-making process. A common approach in the transport policy literature is to focus on the change in the environment and how this relates to changes in business attitudes. Surveys provide an opportunity to collect a range of business opinions, including those that see opportunities in changes to transport access. Some studies have found a higher than expected number of businesses thinking the attractiveness of the area would improve with increased sustainable transport options and that it would attract customers (see for example Drennen, 2003; Clean Air Partnership, 2010). Such favourable views contradict the media narrative (and assumed normative viewpoint) about business opposition to proposed and implemented sustainable transport projects. Notwithstanding that business opposition exists, any analysis of business viewpoint needs to take into account the characteristics of the town centre, the type of sustainable transport intervention and the compatibility of the intervention to the travel behaviour of the local demographic. For instance where local authorities are implementing bike lanes in town centres in response to an observed increase in bike use amongst the local population, one would expect businesses to view cyclists as potential customers. Similarly if a town centre has suffered a decline, the sustainable transport intervention may be viewed as an opportunity to revive customer interest and business investment. Business confidence in the local authority's ability to deliver promised improvements in public transport and street beautification was identified as a factor influencing businesses attitudes in a Nottingham study by Whitehead (2005). The study

shows that in a hypothetical disturbance to existing transport infrastructure in Nottingham, the reputation of the local authority matters. Businesses lacked confidence in the local Council to make the improvements to public transport, rationalising that if the projects did eventuate they may come too late to help businesses survive (Whitehead, 2005).

Another body of work places greater focus on how business resources influence business strategies which in turn impact the ability of a business to capture competitive advantages. Whitehead, Preston and Holvad (2005), Castillo-Manzano and López-Valpuesta (2009) and Stantec (2011) for example, all suggest businesses that are marginally profitable are the most vulnerable to the disruption effects of changing the accessibility conditions by virtue of their smaller reserve of resources. The smaller resource base of small businesses could also be viewed as a disadvantage in coping with the disruption effects. However studies of business success factors in a changed environment highlight that it is not just the amount of resources but the use of resources that are important. These include the ability of businesses to innovate and create value effectively and efficiently from available resources (Moore and Manring, 2009; Teece, 2010). Placing greater focus on the small business decision-maker and their choice of business strategies, rather than business resources, may provide a better indication of a business's ability to adapt to the policy disturbance and gain competitive advantages.

Marketing is an example of a strategy business decision-makers can use to create value and control the impact of market fluctuations on customer attraction and business competitiveness. Attributes such as trading hours, proximity, trip length, parking, and selection of activities can all figure in a customer's valuation of the convenience of a business (Clulow and Reimers, 2009). The variety and subjectivity of these valuations provides opportunities for businesses to influence customer decision-making with marketing. Strategies that differentiate a business from the competition, such as raising service quality or providing free customer parking, can be a strategy to improve customer loyalty even when the business is not the most convenient choice (Netz and Taylor, 2002; Jones, Mothersbaugh and Beatty, 2003; Pan and Zinkhan, 2006; Grewal, Levy and Kumar, 2009). Likewise strategies that are responsive to the needs of different profiles of customers, such as age or purchasing habits, add to the ability of a business to influence the information a customer will use to decide where to shop (Walters and Jamil, 2003; Meneely, Burns and Strugnell, 2009). Marketing strategies can help businesses control how changes to accessibility affect their business.

Not all businesses may orientate their strategic efforts to influence customer behaviour in the same way. According to the small business literature, marketing amongst smaller businesses is less formalised and intertwined with 'doing business' (Carson and Cromie, 1990; Carson, 1999; Jones and Rowley, 2011). With fewer staff, flatter organisational structures and smaller customer-base, small businesses are said to have more interactive customer relationships (Jones and Rowley, 2011). This can present advantages in terms of the quality and responsiveness of customer service. The smaller staff resources can also constrain the ability of small businesses to invest time in creating knowledge resources such as customer databases, marketing materials, and updating knowledge and skills (Carson and Cromie, 1990; Carson, Gilmore and Rocks, 2004; Gilmore *et al.*, 2006). Assessments of small business responses to policy interventions therefore need to take into account how businesses are utilising the resources at their disposal. In a town centre environment where businesses are gaining value from the attractiveness of the agglomeration, assessments should also include the option of businesses pooling resources.

Place-marketing initiatives are an example of town centre businesses working collaboratively to attract customers (Page and Hardyman, 1996; Warnaby *et al.*, 2004; Warnaby, Bennison and Davies, 2005). In Australia, local authorities and local business chambers have used place-marketing initiatives, such as the Main Street program, to help traditional town centres and strip-shopping areas compete with shopping centres (Anglin Associates, 1989). Examples of initiatives promoted in the NSW Main Street Handbook include those focused on creating value from the inherent features of the place, such as street beautification schemes, developing a distinctive 'village' brand, and the transport accessibility options (Anglin Associates, 1989). Of the transport accessibility options, car parking retains its place at the top of the hierarchy. Placed lower on the hierarchy is the availability of public transport options, especially those that are frequent and high quality, and the walk-ability to and within the town centre environment (Handy and Clifton, 2001b; Warnaby, Bennison and Davies, 2005; Whitehead, Simmonds and Preston, 2006).

In Australian cities such as Sydney, bike-riding is not a common form of transport. Nevertheless there is renewed interest amongst transport researchers and some politicians in making bike-riding a more viable and safe option for a wider number of people. To increase the popularity of cycling as a mode of travel, some local Councils have followed the example of other cycle-friendly cities and have installed bike-related infrastructure such as bike lanes

and bike parking (Pucher, Garrard and Greaves, 2011). Consistent with recommendations in the travel behaviour literature these hard infrastructure solutions are accompanied by soft measures such as bike education, marketing campaigns and encouraging businesses to be bike-friendly workplaces (Coleman, 2000; Enoch and Potter, 2003). Convincing shop-orientated businesses and the Australian public, more generally, about the economic benefits of public places becoming bike-friendly has not been so easy. As is found in the literature about pedestrianisation, the importance placed on the car over all other modes has meant local businesses often oppose initiatives that require the displacement of parking. International evidence about the benefits of increasing sustainable transport options in towns and cities has been difficult to transfer to the Australian experience, especially when the evidence-base is European. The weather, land use density and distances travelled are barriers that maintain the normative belief that car travel will always be the preferred mode of travel for Australians. The business case for tapping into an 'alternative travelling' customer base may be an effective means to shift business opinion. Research done in Australia by Lee and March (2010); Tolley (2011) mirror efforts overseas to demonstrate the economic value of targeting bike customers (Clifton *et al.*, 2013). While these studies focus on providing evidence about customer behaviour, the behaviour of businesses and specifically their willingness to target non-car travelling customers has yet to be assessed.

While it is in the interests of policymakers to understand how an individual's valuations of access influence their travel decisions, the way businesses influence these valuations should also be a focus of attention. Business capacity to influence customer valuations is likely to vary, although this may be a function of the use of resources rather than the amount of resources per se. For example, marketing strategies used by small businesses may be more informal than those of larger businesses but are potentially just as effective in shaping customer expectations and capturing value from the accessibility features. If businesses are unwilling or are hesitant to diversify their marketing efforts to target other non-car travelling customers, this could have implications for customers' travel choices, and in turn policy outcomes. Finding ways to observe how business decision-makers utilise their available resources to generate value from the accessibility of their business would improve the ability of policy appraisals to foresee how business actions may affect policy success.

2.4.1 The small business literature and goal-orientated decision-making

Despite goal motivations being a topic of interest in the study of travel behaviour and preferences, it is missing from studies of businesses and their use of access. Goal motivations are a current topic of interest in the small business literature and an alternative to the traditional focus on personality. Personality models have been used to define traits that are dominant or more successful in different contexts and business life-stages. These include defining individuals as entrepreneurial versus managerial, risk-taking versus risk-averse, extraverted versus introverted (Armstrong and Hird, 2009; Zhao, Seibert and Lumpkin, 2010). The focus on goal motivations and cognitive traits, such as decision-making and information acquisition, is also motivated by an interest in understanding how these contribute to business success (Sadler-Smith *et al.*, 2003; Runyan and Droge, 2008; Armstrong and Hird, 2009; Carsrud and Brännback, 2011). It is argued that disagreement in the literature about the distinctiveness of personality traits amongst business owners and their transferability across all industries makes a focus on business decision-making more useful to policymakers (Wagener, Gorgievski and Rijsdijk, 2010). Moreover, the characterisation of individuals by personality traits can be limiting in policy contexts where changes in behaviour are desired.

A focus on how business owners are strategising to achieve their business goals and the processes they use to overcome challenges in goal attainment could be more productive for a study considering disruptions to transport accessibility. A business owner's own goal motivations are said to be strongly associated with the strategic direction and actions taken by a small business (Kisfalvi, 2002), more so than in larger organisations where there is delegated decision-making authority. There are indications that small business owners' goal motivations are being assessed and valued by both financial and non-financial criteria, for example self-sufficiency and personal-satisfaction. Many small business studies have focused on goal motivations in the context of business start-up, identifying that self-employment is itself a strategy to attain a goal, though the goal objective can vary amongst individuals (see for example Walker and Brown, 2004; Gorgievski, Ascalon and Stephan, 2011). Walker and Brown (2004) categorised the different motivations as either positive pull or negative push factors. Positive factors pull the individual to choose self-employment, for example to attain financial abundance or comfort, to pursue a passion, or to have more control in the work place. Negative factors push them to choose self-employment so as to avoid an outcome or

overcoming a difficulty, as is the case for migrants whose language skills are a barrier to gaining employment, or those who feel responsible to continue an inherited family enterprise (Carland *et al.*, 1984; Collins *et al.*, 1995; Puryear *et al.*, 2008). In the psychological literature on motivations these pull and push factors are known as approach and avoidance strategies. Psychologists use approach and avoidance to explain how individuals self-regulate (i.e., self-motivate) themselves in their goal-orientated decision-making.

A self-regulatory theory from psychology that recognises the flexibility of goal motivations under different strategic situations is Higgin's *Regulatory Focus Theory* (RFT) (Crowe and Higgins, 1997; Higgins, 1997). Brockner, Higgins and Low (2004) have argued that RFT is an appropriate framework for studying the different types of goal strategies a business owner needs to grow and maintain a business during the life-time of a business. RFT delineates between two core motivations which induce different goal strategies. A Promotion Focus is motivated by advancement needs and induces eager strategies to approach positive outcomes. A Prevention Focus in contrast is focused on security needs and uses vigilant strategies to avoid negative outcomes. RFT provides advantages over a framework based solely on personality attributes. Firstly, individuals are not constrained to one particular Regulatory Focus. Individuals are understood to "all have advancement and security needs" (Molden, Lee and Higgins, 2008 p.172), though preferences for and competency in using a Promotion or Prevention Focus can be influenced by childhood and prior experiences (Higgins, Shah and Friedman, 1997). Secondly, individuals are found to act in accordance to the RFT model even when given a goal task or instructed to adopt a goal strategy (Higgins, Shah and Friedman, 1997). In a situation where business owners are confronted with uncertainty and change, the flexibility of RFT in describing adaptation of decision-making strategies, may they be induced or self-initiated, could provide new insight into the variability of responses.

A number of researchers outside the psychology discipline are using RFT to understand human decision-making behaviour. It has been applied in the entrepreneurial literature to understand opportunity exploitation in new and existing firms (Bryant, 2007; Hmieleski and Baron, 2008). The transport safety literature has applied RFT to understand braking speeds and risky driver behaviour (Werth and Förster, 2007; Hamstra, Bolderdijk and Veldstra, 2011). RFT has also been discussed as a framework for the customisation of health promotion marketing materials (Briley and Aaker, 2006a). RFT has not been applied to understand small business owners and their response to changes to accessibility of their

business, despite its appropriateness as a model for adaptive goal-orientated decision-making behaviour.

2.5 Research gaps

There are many town centre environments within a metropolitan city. Transforming them all into places accessible by sustainable transport options takes time and resources, but doing so would contribute to efforts to transition society to adopt new travel behaviour norms. There is value in understanding the common phenomenon of local business opposition to sustainable transport policy initiatives in town centres. It could help make the implementation of initiatives less controversial and less resource intensive, especially if data collected from businesses has value beyond the case-study area. This review of the literature identified a number of research gaps that are acting as barriers to understanding the phenomenon of business opposition.

Gap 1: Business reactions excluded from goal-orientated model

The transport policy literature has not been framing the changes in accessibility as a disturbance to business goals, in the same way it is framed as a disturbance to customers' travel behaviour. The intent of the policy disturbance is to disrupt the normal trip-making decision-making processes with new information about accessibility options in a town centre. The goal-orientated decision-making model is a versatile one applied to understand individual decision-making in various disciplines including marketing. However, in conceptualising the effect of sustainable transport policy disturbances in a town centre, the goal-orientated decision-making frameworks have been only used to focus on the decision-maker whose direct mobility needs have been disturbed by the change. Accessibility is used by businesses for their mobility needs, but also to attract customer trips. Including the accessibility needs of businesses in the goal framework would help policymakers reposition business response as a primary effect of the policy, rather than a secondary effect of customer trip decisions.

Gap 2: Finding ways to value access for non-mobility purposes

The goal-orientated decision-making model has not been applied to a situation where businesses are using accessibility as a resource for non-mobility purposes. Accessibility features of a business location are understood to be valued by businesses because it makes their business and the town centre more attractive to customers, and therefore their business

more competitive. As the business purpose of accessibility is not functioning in the same way as when used for trip-making needs, the operationalisation of accessibility value needs to be customised to suit business goal-orientated decision-making. This requires more knowledge to understand how businesses are valuing accessibility features in light of the subjective and changing value of access.

The sociological mobility concept of 'motility' may be a more appropriate conceptual device as accessibility is a resource that businesses can exploit for their own benefit in various ways. The concept of motility was designed to help analyse the exchange of value between socio-economic and spatial dimension of mobility. In a goal-orientated model, the movement of accessibility value from customers' mobility needs to business' accessibility needs involves a process of value exchange. The motility concept could be useful for unpacking the subjective valuations of transport access as a resource, and reveal how business operators are interpreting it as changing the possibilities for their business.

Implementation of the motility concept as an exchangeable resource has been confined to the mobility of individual actors, not the accessibility of individuals who are dependent on the mobility of other people. The sociological definition of resources could help apply the motility concept to study the accessibility needs of businesses within a town centre space. This approach could also be helpful to observe how customer use of access informs business evaluations of accessibility, and vice-versa.

Gap 3: Ignoring business influence on policy outcomes

More could be done to orientate policy appraisals around a business perspective. The purpose, sources of data and the framing of decision-making power in policy planning and appraisals has been driven by policy-orientated concerns. Data used for policy appraisals can be a constraining factor. Reliable and objective disaggregated business data can be harder to acquire at a system-level, especially for the large population of small businesses that are found in local centres. Capturing data about how policies may affect individual-level business viability could help improve business acceptance of policy appraisals, especially if localised concerns are addressed. The resource-intensiveness of collecting data from a small business population could be addressed by collecting data that has value beyond the case-study area and beyond the specific point-in-time.

Excluding adaptive business decision-making reduces the effectiveness of policy appraisals. Adaptive business decision-making behaviour is not captured in point-in-time impact studies. Collecting data about adaptive behaviour can help inform how businesses react over time, and under different situations. The current system-level conceptualisation does not include scope to account for how businesses may need to learn how to adapt their business. It also does not account for how businesses' capacity to adapt well to the changes in the accessibility may vary. Collecting data from businesses that extends the focus not just on the causal relationship between input and outputs but also the decision-making process in-between, would increase the versatility of these appraisals to assess policy outcomes.

The power to influence policy outcomes has focused on the top-down influence of policymakers and the travel behaviour of travellers, not businesses. Businesses are not being recognised as actors whose actions, individually or collectively could affect customer travel. Instead businesses are framed as stakeholders who experience the policy disturbance as a secondary or indirect effect of decision-making choices of travellers. Such a model is ill-equipped to measure the potential power of businesses to push back and influence policymakers decisions, or the trip-making decisions of customers. It is also ill-equipped to measure the effect on policy outcomes if businesses do not adapt well, or adapt too slowly. The research on sustainable transport policy interventions would benefit from a model that allows policymakers to assess the extent policy outcomes are dependent upon businesses reacting in specific ways.

Gap 4: Not utilising knowledge about business goal-orientated behaviour

The psychological and business literature about goal motivations and goal-orientated decision-making has not been applied to understand business reactions to accessibility changes in a town centre. A focus on how business owners are strategising to achieve their business goals and the processes they use to overcome challenges in goal attainment could be more productive for a study considering disruptions to transport accessibility. It is not clear, for example, if businesses perceptions about the potential value of accessibility changes, positive or negative, are influenced by the nature of their business goals, and their competence in converting accessibility changes into something of value to their business.

Applying Regulatory Focus to this research could help categorise businesses by their goal-orientated concerns and strategic behaviour. Compliance to the RFT model would be expected to yield the strategic actions associated with the Regulatory Focus goal motivation, as well as predict patterns of strategic behaviour under induced scenarios. For example, businesses focused on protecting their business may have a different willingness to utilise new motility resources than businesses focused on growing their business. This profiling of business by their goal-orientated behaviour rather than personality attributes is an advantage in a system-level conceptualisation of a policy disturbance intended to change trip-making behaviour. Additionally, it provides scope for policymakers to model or explain variations in business behaviour, for example in a scenario where businesses revise their strategies or goals if they observe the impact of the policy disturbance on their business is different to their initial expectations.

2.6 Conclusion

Business opposition to sustainable transport policy initiatives is not an established area of interest beyond the applied transport planning concerns. Studying business opposition as a phenomenon within a goal-orientated decision-making model is distinctively sociological as it is focused on the relationship of individual perspectives and the regulatory authority who, at least theoretically, acts on behalf of the public's collective longer-term interests. This critical review has drawn upon an interdisciplinary literature to understand how changes to the accessibility features of a town centre could relate to the goal motivations and behaviour of business actors.

Although the economic value of accessibility in terms of customer attraction, business competitiveness and town centre attractiveness is accepted, there has been only a small body of work focused on incorporating how businesses are adapting to accessibility changes instigated by policymakers. The literature has largely excluded business reactions from how the policy disturbance will change goal-orientated decision-making, preferring to treat the disturbance to businesses as a secondary effect. Policy assessments have as a result maintained a narrow temporal view of how business influence could affect policy success – focused on point-in-time impacts rather than business' ongoing and adaptive influence on customer behaviour. The transport policy literature would benefit from tapping into the literature on business goal motivations and strategic behaviour to help understand and manage business opposition. Similarly, sociological approaches to the study of mobility

should be investigated for their potential to help track how accessibility value can move between the goal-orientated decision-making behaviour of customers, businesses and policymakers.

More research is needed to reduce the conflict between policymakers and businesses. Both have interests in the future sustainability of town centres but their priorities often differ. To address this gap this research focuses on the conflict of goals that occurs when policymakers want to encourage changes in customer travel mode choice to a town centre. Specifically the research will be structured to understand the link between businesses' concerns about changes to town centre accessibility and the reactive strategies they use to cope and adapt to the new conditions so that they remain attractive to customers. Three research questions are used to guide this investigation:

> *Q1.   To what extent do businesses perceive changes to transport access options in a town centre disrupts their business goals?*

> *Q2.   Are businesses willing to adapt to changes in transport access and trip-making to town centres, and do their goal concerns and goal pursuit competencies have an influence?*

> *Q3.   What are the implications for the realisation of sustainable transport policy goals if business owners' reactions do not align with policy intentions?*

The methodological approach in this study will incorporate the following components. Firstly, the sociological concept of motility will be used to capture both the spatial and socio-economic value mobility provides to businesses. The accessibility features of a town centre space is by its very nature a common resource used by businesses, policymakers and their customers in the pursuit of goals. The use of motility as a framework will allow the research to consider how access is differently and subjectively valued within different contexts by different interests. It will allow access to be captured as an exchangeable resource that is moving between those using it for mobility and those using it to access economic (and environmental) sustainability. Thereby the motility framework will enable this research to better incorporate the business accessibility needs into a broader conceptualisation of the policy disturbance.

Secondly, this research will continue in the tradition of using a goal-orientated decision-making model to conceptualise the effect of a policy disturbance on actors within a society. The advantage of goal-orientated decision-making models is that they can capture the

dynamic and adaptive behaviour of humans who are continually incorporating new information and assessing its usefulness to the achievement of their desired goals. They can also be scaled up, thereby not only being useful to understand individual behaviour but also collective behaviour, or system-level behaviour such as policy. For a policy disturbance intended to stimulate a change in expectations and behaviour about mobility, a goal-orientated framework is particularly valuable. This research will use the goal-orientated model at both the individual and the meso-level of the town centre to analyse how business goal-orientated behaviour may influence policy outcomes over time. Specifically process data collected from businesses about their motivations, resources, and strategies will be used to help explain how their use of accessibility for their business could be synergetic or antagonistic to policy goals.

Finally, this research will use Regulatory Focus Theory (RFT). RFT has been applied to understand the goal-orientated decision-making of businesses, and does not limit an individual to one type of behaviour as is common in personality-orientated models. RFT helps to categorise the goal motivations of businesses as either that focused on advancing and growing (Promotion Focus) or those focused on protecting and securing (Prevention Focus). If businesses act in accordance to the Regulatory Focus model, this reduction of goal motivations enables a prediction of the types of strategies a business would adopt to satisfy their goal motivations. Eager strategies should be induced by Promotion Focus goal motivations whilst vigilant strategies should be induced by a Prevention Focus. Understanding the sensitivity of businesses' behaviour in relation to this model, has the potential to broaden how policymakers interpret businesses opposition in terms of levels of adaptive and tenacious behaviour. The next chapter focuses on the design of the methodology that will enable this research to fulfil these research objectives.

Chapter 3   The Methodological Framework[10]

A pragmatic research perspective argues that addressing the complexity of sustainability problems benefits from multiple perspectives and processes of investigation (Dryzek, 1997; Onwuegbuzie and Leech, 2005; Avelino and Rotmans, 2011). Uniting different theories and methods normally associated with positivist and interpretist epistemologies within a research framework is itself a complex problem.

The methodological framework for this study is structured around the goal-orientated model of decision-making. The three research questions each represent a component part of the goal-orientated model – the information acquisition stage, the decision-making stage, and the outcomes stage. Three different goal-orientated perspectives are used to examine the research problem. An individual-level view is used to examine how businesses react to changes in the accessibility of their town centre. A socio-spatial perspective is used to examine how the reactions of businesses in certain town centre environments may affect policy goals. Different temporal perspectives are used to examine how businesses have adapted in the past, and how they could react in the future.

This chapter explains the methods and important theoretical concepts that make up the methodological framework. The chapter begins by presenting how the goal-orientated model and mixed methods design work together to enable both exploratory and confirmatory research. The chapter then focuses on the concepts as they relate to each research question. As the first research question investigates the disruption of business goals, the concept of motility and how it relates to business accessibility is explained. This is followed by a section on the Regulatory Focus model of adaptive goal-orientated behaviour and how it is expected to be observed in this study. These research expectations are the building blocks for the design of the experimental survey that will be central to the investigation of the second research question. This is followed by the presentation of mechanisms used in this study to trace and analyse the use of motility resources and business power. These are important to the investigation of the third research question about policy implications of business reactions.

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[10] Descriptions of the methodological framework in this chapter are partially published in Moutou (2011).

3.1 Structure of the research investigation

In response to the research gaps the model of individual goal-orientated decision-making behaviour is chosen as the base framework to conceptualise the thinking process underlying the reactions of a small business owner. The advantage of this approach is that the three research questions each relate to a stage of the cyclic decision-making model (see Figure 3-1). The first research question (Q1) focuses on how business owners assess how the accessibility of the town centre environment aids or hinders their attainment of goals. Within the model this is represented by the link between perceptions and existing goals and knowledge - the level of incongruity being a measure of goal disruption. The second research question (Q2) is focused on the process where evaluations give rise to actions that are determined appropriate to their updated goal needs. The third research question (Q3) centres on the effect of business decision-making behaviour on the environment, which in a town centre environment may influence the behaviour of customers and therefore the achievement of policy goals.

Figure 3-1: The research questions (Q1, Q2, and Q3) and the goal-orientated decision model (Source: Adapted from Gärling et al. (2002) for this research)
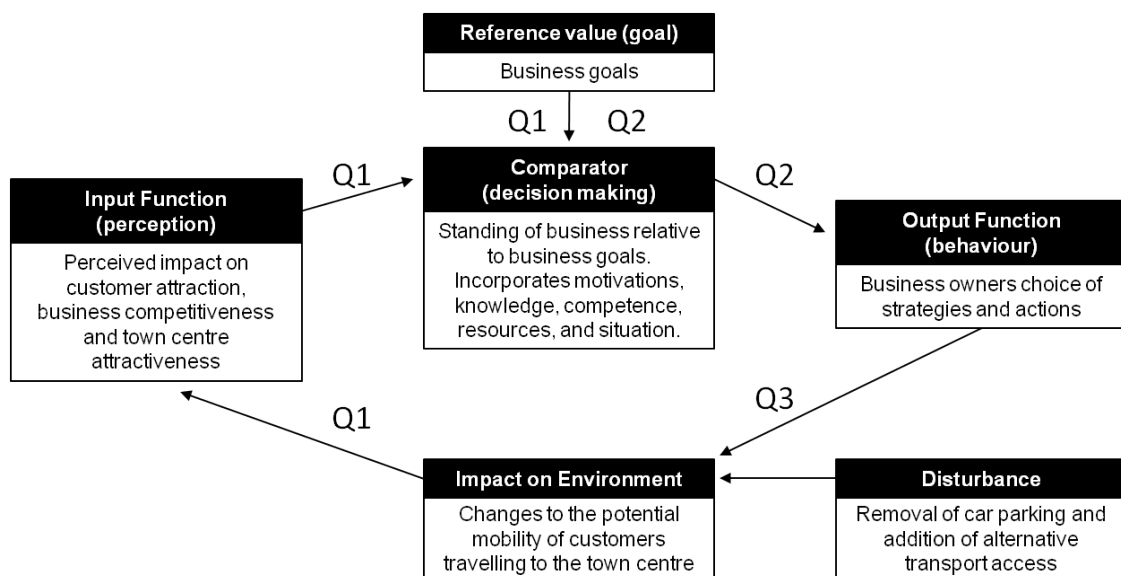
Individual business owners operate within a group environment – the town centre. The town centre environment is not just an important source of information that businesses can observe and learn from, it is the space in which businesses can influence each other. To account for this more complex system of interactions and interdependencies this research adopts a socio-spatial perspective of the research problem that is more common in interpretive or

phenomenological research. Figure 3-2 presents a socio-spatial perspective of the research problem and maps the research questions against the individual, collective and societal viewpoints.

Figure 3-2: Socio-spatial scales of enquiry
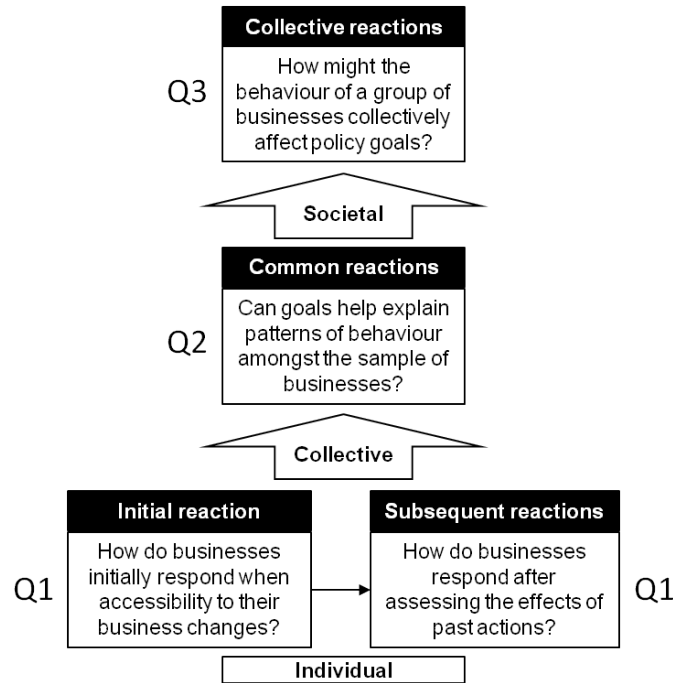
There are advantages to using a social-spatial perspective. A social-spatial perspective focuses attention on how business actions, individually and collectively, may aid or hinder the realisation of policy goals, thereby providing a framework to consider the influence small businesses can have on how and where customers choose to travel. A social-spatial perspective also helps highlight that business reactions are a product of businesses interpreting and processing information from their spatial and social environment. How an individual business interprets the initial disturbance in relation to their goals may change in subsequent reactions as more information becomes available – consistent with the cyclic goal-orientated model. Finally, a social-spatial perspective helps incorporate an analysis of decision-making power and influence on other people's use of access.

A temporal perspective complements the socio-spatial perspective as it helps to consider how the contemporary experience is informed by the past, and is informing the future (see Figure 3-3). Examining each socio-spatial scale from a temporal perspective serves different purposes. At the conceptual level it acknowledges the continuation of time and the difficulty of separating the process of knowledge formation from the socio-historical context that

produces and interprets it. At the individual level, it helps to understand how a business' past experiences are informing their knowledge of how to react, their communication of their intention to act, and their level of competence in implementing actions. At the collective and system-level, the events of the past could likewise be acting as constraints or enablers for the future of the area. For example, the success or failure of past sustainable transport initiatives or the local authority more generally could influence business expectations.

Figure 3-3: Temporal perspectives to research enquiry
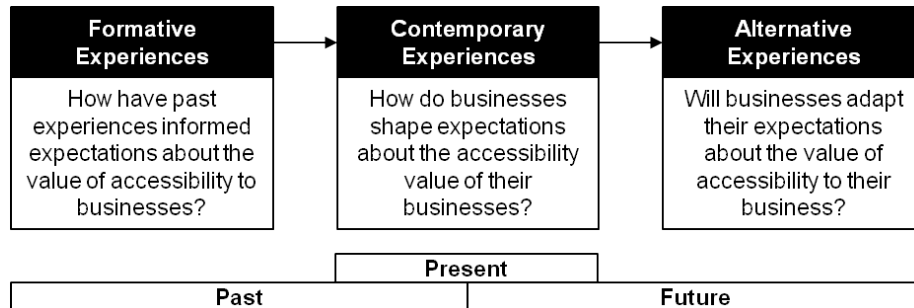
Observing the changes in the way businesses value accessibility for their business can help assess and identify possibilities for the future. Mobility choices are part of 'everyday life' which consists of both cyclical or habitual short-term decisions and linear decisions that due to their sequence or by their importance are made rarely (Lefebvre and Levich, 1987). Both cyclical and linear business decisions influence future expectations about accessibility, but as with other realms of life, it is often only with retrospect that the incremental changes in 'everyday' expectations become apparent.

3.1.1 The multi-stage mixed methods design

This research adopts a pragmatist worldview to investigate business reactions to the disruption caused by the implementation of sustainable transport policies. Pragmatism is a research approach developed in response to the philosophical debates (often referred to as 'paradigm wars') about the merits of quantitative and qualitative methods for observing and validating 'true' knowledge (Bryman, 2006). The positivist/postpostivist epistemological view that measuring the world empirically using scientific deductive logic and hypothesis testing is the most objective approach to rule out what is not true, and therefore develop a consensus on the likelihood of what is true. The interpretivist/constructionist perspective questions the concept of objectivity as researchers are themselves embedded in a socially-constructed understanding of what is and isn't valid forms of knowledge. The interpretivist

viewpoint favours the inductive and reflexive process to knowledge building. This is manifest in the tendency to use qualitative in-depth small samples as case-studies to examine behaviour that does not conform to the statistical norm, and a greater interest in analysing the participant's and researcher's subjective point of view.

The pragmatist stance is to make methodological choices based on their appropriateness to the needs of the research problem rather than a philosophical belief (Bryman, 2008; Creswell, 2009). Pragmatism rejects the notion that research needs to adopt and remain consistent to an epistemology. Quantitative and qualitative methods both have value in understanding complex research problems and can be used in tandem to explore, confirm and understand phenomena (Onwuegbuzie and Leech, 2005). Moreover, pragmatism challenges the notion that quantitative methods are always positivist and qualitative methods are always interpretivist noting that both camps use subjective and objective criteria in the design of research and judgements about validity (Onwuegbuzie and Leech, 2005).

A pragmatist approach is appropriate for this research investigation for various reasons. Firstly, the goal-orientated model conceptualised from multiple perspectives (individual, socio-spatial and temporal) naturally demands collecting data from multiple sources and in various formats. Historical sources of information are never complete. What traces exist, such as archival documents, are a product of the socio-historical context (or person) that created and valued them. Using inductive approaches to examine evidence from the past, and drawing on multiple viewpoints to help analyse it can help reveal alternative truths and test the validity of the dominant or accepted wisdom. Secondly, the 'black box' of individual decision-making process is not static. Research instruments can be designed to capture data in a controlled and systematic way but it still involves an interactive process with the respondent. Even when individual recollections of past behaviour, explanations of current motivations and assertions of future behaviour are collected in quantitative forms they are subject to interpretation, decisions about disclosure and the context at that moment in time. Finally, research that has a practical value to policy making is that which provides an evidence-base for the investment of resources. Collecting data systematically to deductively test hypotheses can help to assess the prevalence or consistency of behaviour across a sample and save wasted effort, but it still requires a process of reflexive interpretation. Interpreting the meaning and implications of results by examining the context they were derived, can help formulate new theories, deeper knowledge and improved research strategies.

This research therefore uses a mix of methods that collect, analyse and interpret qualitative and quantitative data collected from various sources. Figure 3-4 shows the sequence in which the methods have been used and their contribution to the research investigation.

Figure 3-4: The multi-stage mixed method design

Historical case study using media reports	**Local government focus group**	**Town Centre Business Survey**	**Analysis of policy implications**
How did town centres adapt to demand for parking when car mobility was new and rising?	What has been observed when transport access is proposed or changed in town centres?	When presented with a hypothetical change what goals and actions do business indicate are important?	How may business actions impact the policy goal of increasing accessibility by sustainable modes?

	Present day behaviour	
Past behaviour	Future behaviour	

The first two methods examine how current business expectations about accessibility may be influenced by the past. There have been various studies of businesses and their use of accessibility that have used historical analysis to good effect. Flyvbjerg (2002) used hindsight to examine the role of businesses in the policy failure of new sustainable transport options in the town of Aalborg, Sweden. Ahrentzen (2008) examined the history of Greendale, USA, a 1930s purpose-built walkable town centre, to show how businesses and the community maintained its active-living identity despite the pressures of increasing automobilisation.

This research uses two methods to examine how current business expectations about accessibility may be influenced by past changes in customer travel and the town centre street environment. The first method is a historical case-study about a period in which some town centres within the study area were being 'modernised' to cope with increasing levels of car use. The second method is a series of focus groups held with Council staff that collects more recent information about business responses to sustainable transport initiatives within the study area. The historical case-study and focus groups contribute to addressing the first research question. The findings from the historical case-study and focus groups are reported in Chapter 4.

The Town Centre Business Survey is the core component of the research methodology. It is designed to collect data about the individual-level goal-orientated decision-making process which contributes to all three research questions. The structure of the Town Centre Business Survey is a random sample quantitative survey to maximise the capacity of the research to make statistical inferences about the population of the study area. The following sections of

this chapter cover the theoretical concepts that the Town Centre Business Survey is designed to observe and measure. The design of the survey instrument and survey methodology is explained in greater detail in Chapter 5, as it incorporates findings from the historical case-study and focus groups. The survey data is reported and analysed against the research hypotheses in Chapter 6.

The final method used in this study is an analysis of the policy implications arising from observations from the Town Centre Business Survey. This exploratory stage of analysis helps to reflect on the meaningfulness of the statistical data observations within the socio-spatial context of the study area. The analysis is reported in Chapter 7. The mechanisms used to examine the sociological concepts of motility and power are important innovations enabling this analysis, and these are explained in the following sections of this chapter.

3.2 The disruption of business goals and motility value

Question 1: To what extent do businesses perceive changes to transport access options in a town centre disrupts their business goals?

3.2.1 Business goals disrupted by changes to access

A primary goal for a small business owner or manager is to have a viable and continuing business.[11] While other goals such as 'being accessible' may be important to a business, the literature review highlighted that the value of accessibility is more specifically related to its contribution to customer attraction (CA), business competitiveness (BC) and town centre attractiveness (TCA). Changes in these three attributes are expected to inform how a business individual perceives they are tracking towards their primary goal of having a viable and continuing business (see Equation 1).

Equation 1: Assessment of changes to access a function of change to business goals

$$Impact\ of\ changed\ access\ on\ business\ goals = f\,(\Delta\,CA, \Delta\,BC, \Delta\,TCA)$$

A business' perception of an impact as large or small, positive or negative is expected to influence their motivational need to take goal-orientated action. Table 3-1 presents three expectations from the literature about how different assessments of impact to CA, BC and TCA will translate into a motivational need to take goal-orientated action.

Table 3-1: Research expectations – Perception of impacts influencing motivational need

E_1	*Where a business perceives impacts to business as negative they will be motivated to take corrective action to get their business back on course to achieve their goal.*
E_2	*Where a business perceives impacts to business as positive they will be motivated to take action that ensures they achieve their goal.*
E_3	*Where a business perceives no impact to their business they will be less motivated to take specific action.*

3.2.2 Motility as a measure of subjective and changing access value

The concept of motility is used in this research as a device to study how access changes can be valued and used by businesses, and how this in turn can affect how access is valued by others. Consistent with the intention of Kaufmann (2002), motility will be defined in this

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[11] There is no known limit to the number of goals that an individual may jointly consider at any one time, but it is generally accepted in the literature that it is more than one.

study as a resource that can be exchanged to enable access to both spatial and socio-economic mobility. Unlike other studies that have used the concept of motility, this study constrains the definition of motility to that occurring in the town centre street space and that which is associated with customer's use of access features. This limited definition allows the study to investigate how businesses capture and cultivate value from a resource that is critical to their business but ever-changing as it is associated with customer mode choice and levels of customer flow. Moreover, it allows the study to investigate the exchange of motility value through the socio-spatial framework of a town centre environment by focusing on the resource of interest to both businesses and policymakers – the customer trip.

Businesses and policymakers use the resource of customer motility to satisfy different goal objectives. Businesses are interested in the economic value of customer motility, and use strategies to capture value from trips customers make to the town centre. Policymakers are in contrast focused on the modal characteristics of customer motility and this is what they seek to change with the sustainable transport policy intervention. In more specific terms, policymakers are aiming to increase the proportion of customer trips using sustainable modes of transport – defined as public transport, cycling and walking.

There were two options considered for measuring customer motility in this study. To measure customer motility in relation to the business goal, for example the amount of customers flowing into a business, or to measure customer motility in relation to the policy goal. The latter is used as it is a more direct means to assess how specific business actions could affect policy success. Customer motility is therefore, measured on an indicative scale of proportionate mobility by sustainable modes (public transport, cycling and walking) – zero to 100 percent as illustrated in Figure 3-5.

Figure 3-5: Measuring motility as a scale of customer mobility by sustainable modes

Like other town centre resources of comparative value – such as ambience, safety, and convenience - businesses can 'tap into' customer motility to individually or collectively develop competitive advantages and customer attraction. Where business actions have potential to encourage customer use of sustainable transport modes these are described as

aiding high customer motility. Likewise those actions that have potential to encourage more car use are rated as low customer motility. These distinctions are used to code the actions of businesses as synergetic or antagonistic to policy goals. Section 3.4 describes how this incorporation of motility into the coding of business actions is the means which this research analyses the potential of businesses to influence or hinder sustainable transport policy success.

3.2.3 Contextualising business perceptions to place characteristics

Existing transport access provision in a town centre is anticipated to be a factor in how businesses perceive disruptions to transport access. The types of transport options in a town centre are a product of past decisions on land use and transport planning, which themselves can be constrained by topography, administrative boundaries and patterns of urban development. Distinguishing the availability of transport options (car parking and sustainable transport options) in town centres is therefore an important step in interpreting business perceptions about changes to access.

Two dimensions are used in this research to measure existing access options in town centres. Equation 2 shows town centre motility to be a function of barriers to car use (TCBarriers) and opportunities for sustainable travel (TCOpportunity) in the town centre. As with customer motility, town centre motility is orientated around the sustainable transport policy goals. Where high TCBarriers indicates a town centre with attributes discouraging car use, and a high TCOpportunity indicates a town centre with attributes conducive to sustainable travel.

Equation 2: Town centre motility a function of barriers and opportunities

$$Town\ Centre\ Motility = fn\ (TCBarriers, TCOpportunity)$$

The measure of town centre motility thereby becomes a mechanism to examine how differing levels of TCBarriers and TCOpportunity are correlated with different businesses perceptions of impacts to customer attraction (CA), business competitiveness (BC) and town centre attractiveness (TCA). Understanding the context of existing options in a town centre is therefore expected to help explain differences in business behaviour. Table 3-2 lists the research expectations about how town centre motility influences business perceptions.

Table 3-2: Research expectations - Influence of town centre motility on business perceptions

E_4	*In town centres with limited sustainable transport options (low TCOpportunity) business sentiment will be more positive (or less negative) about potential benefits to CA and TCA from added sustainable transport options than town centres which already have good sustainable transport options (high TCOpportunity).*
E_5	*In town centres with existing high dependence on car use (low TCBarriers) business sentiment will be less positive (or more negative) about the potential benefits to BC from added sustainable transport options than those with already high barriers to car use (high TCBarriers).*

In the context of the Sydney study area, the planning of the public transport network which connects town centres and the planning for car park infrastructure in town centres are often under the administrative powers of two different levels of government. Public transport infrastructure decisions are under the authority of the State government of New South Wales. While the provision and pricing of car park infrastructure in town centres are largely under the control of the local government authority (LGA).[12] The Sydney area is divided into 43 different LGAs, also known as local Councils. Each LGA aims to encourage economic activity in their town centres so as to support the liveability of the area under their control. The provision of free parking has traditionally been a strategy adopted by Councils to increase town centre attractiveness but in the three LGAs making up the study area this has become a less sustainable strategy due to high volumes of car traffic and the high land costs. Nevertheless some free parking does exist within the study area. Other initiatives within the planning control of the local authority include reserving parking for car share schemes, 'kiss and ride' drop off bays, setting of parking time limits, pricing parking and the provision of bicycle infrastructure.

To factor the influence of place characteristics on business behaviour, data were collected to score each town centre represented in the Town Centre Business Survey on the dimensions of TCOpportunity and TCBarriers. The TCOpportunity variable is calculated from data about the provision of public transport and cycling routes in each town centre, as shown in Table 3-3. The TCBarriers variable is calculated from data about the availability of parking and parking costs in each town centre, as shown in Table 3-4. For each measure the score was weighted and then divided by the highest possible score resulting in a score between 0 and 1.

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[12] Some exceptions include state planning and ownership of commuter car parking at train stations, and car parking in large state significant developments. In such cases the state government is the regulating authority.

Consistent with customer motility, a score of 1 on either measure indicates a local centre that is conducive to sustainable transport policy goals of encouraging greater take-up of sustainable travel options or discouraging of car dependency. Splitting town centres by their scores on TCOpportunity and TCBarriers therefore enables this study to capture differences in the dependent measures of CA, BC and TCA, as well as differences in the actions taken by businesses to protect or achieve their goals. Results are reported in Chapter 6.

Table 3-3: Scoring criteria for TCOpportunity

Attribute	Town Centre Opportunities for sustainable travel	Weight[13]	Possible Score	Total Possible Score
Availability of train	where a score of: • 1 if no train station • 3 if train station near to town centre • 5 if local train station within town centre • 7 if major train station	10	70	
Availability of bus	where a score of: • 1 if no bus service • 3 if 1-6 buses per hour • 5 if 7-14 buses per hour • 7 if 15 or more buses per hour	7	49	
Availability of light rail	where a score of: • 1 if none exist • 5 if light rail near to town centre • 7 if light rail exists in town centre	5	35	**189**
Availability of ferry	where a score of: • 1 if none exist • 3 if near to town centre • 5 if part of town centre • 7 if major ferry terminal	2.5	15	
Availability of bike routes	where a score of: • 1 if not bike-friendly • 5 if bike signage and bike parking • 7 if bike signage, bike parking and segregated bike lanes	2.5	15	

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[13] Weighting of different sustainable transport modes prioritised high frequency services, connectivity and existing patterns of mode share as this best reflected the perceived advantages of sustainable transport in the Sydney context. Cycling received a relatively low weight to avoid artificially inflating the presence of bike-friendly areas. Cycling mode share has been increasing but remains a niche activity as cycling in traffic is a safety concern for many non-cyclists.

Table 3-4: Scoring criteria for TCBarriers

Attribute	Town Centre Barriers to Car Use	Weight[14]	Possible Score	Total Possible Score
Availability of off-street parking lots	where a score of: • 1 if 5 or more • 3 if 3-4 • 5 if 1-2 • 7 if none	2	14	
Count of off-street car space	where a score of: • 1 if 301 or more • 3 if 101-300 • 5 if 1-100 • 7 if none	2	14	**147**
Parking meters	where a score of: • 1 if none exist • 7 if parking meters exist	10	70	
Count of car share pods	where a score of: • 1 if 10 or more • 3 if 3-9 • 5 if 1-2 • 7 if none	7	49	

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[14] Weighting of different barriers to car use prioritised those that would act as the largest disincentive in the Sydney context. Car share pods are becoming increasingly available in areas where residential car parking is less freely available. In such areas residential density is higher, aided by the availability of multi-unit dwellings. Car pods however still encourage a continual demand for car use. The availability of free off-street parking is more common in outer suburban areas. If in a convenient distance to the town centre, privately owned shopping centres parking was included.

3.3 Goal pursuit, Regulatory Focus and adaptive behaviour

> *Question 2: Are businesses willing to adapt to changes in transport access and trip-making to town centres, and do their goal concerns and goal pursuit competencies have an influence?*

To delve into the black box of goal-orientated decision-making this research draws on Regulatory Focus Theory (RFT). An assumption of the goal-orientated decision-making process is that individuals choose strategies that are appropriate to their goal objective. Regulatory Focus Theory (RFT) has a model of Regulatory Focus behaviour which can be used to categorise goal objectives and corresponding goal strategies. This study tests if RFT is useful for understanding and predicting how businesses react to changes in town centre accessibility.

3.3.1 Incorporating Regulatory Focus Theory (RFT)

An underlying assumption in RFT is that people can adapt and learn what strategies are effective under different circumstances. Therefore, when considering how business owners react to a disturbance it may not be so much about who they are (manager or owner, or type of business), but how:

- a business goal is orientated in terms of Regulatory Focus,
- a disturbance is perceived in relation to that business goal,
- flexible they are in moving from one Regulatory Focus to another,
- competent are they in using a Regulatory Focus to attain their goals, and
- communication of the disturbance event is framed in relation to goal threats and goal opportunities

RFT is one of the self-regulatory theories from the motivational science branch of psychology. In common with other self-regulatory theories, the effectiveness of people to motivate themselves (i.e. self-regulate) to achieve success is a function of what resources they have, their motivations and the strategies they use (Brockner, Higgins and Low, 2004 p.206). A representation of self-regulatory theory is shown at Equation 3.

Equation 3: A self-regulatory view of goal-orientated decision-making behaviour

$$GoalOrientatedBehaviour = fn(goal\ motivations, goal\ strategies, resources)$$

The creator of RFT, Higgins (2000) argues that in self-regulatory theories the hedonic principle is over-applied in the classification of motivations. The hedonic principle is the notion that people either 'seek pleasure' or 'avoid pain'. Higgins argues that over-applying the hedonic principle results in the mistaken assumption that 'approach' strategies are limited to positive motivating needs, and 'avoidance' to negative motivating needs.[15] Higgins' RFT instead delineates between two core motivation, advancement motivations of a Promotion Focus and security motivations of a Prevention Focus. Unlike other self-regulatory theories, individuals motivated by either a Promotion Focus or a Prevention Focus can apply 'approach' and 'avoidance' strategies but it is done in characteristically different ways. In other words, Regulatory Focus is described as mediating the relationship between motivations and strategies, as certain motivational inputs give rise to different strategy choices (Molden, Lee and Higgins, 2008). Equation 4 shows a revision to Equation 3 which incorporates RFT.

Equation 4: Incorporation of RFT into goal-orientated decision-making behaviour

$$GoalOrientatedBehaviour = fn(Regulatory\ Focus, resources)$$

Where: $Promotion\ Focus\ = fn(advancement\ motivations, eagerness\ strategies)$

$Prevention\ Focus\ = fn(security\ motivations, vigilant\ strategies)$

To help distinguish the differences between Promotion Focus and Prevention Focus a convention of colour-coding is used in this thesis. Green is used to denote Promotion Focus behaviour as the green 'go' traffic light can help to remember Promotion Focus behaviour consists of advancement motivations and eager strategies. A blue light is a symbol of safety on Sydney's trains. The train guard is in the carriage with the blue light, and a blue light on the station marks the boarding point. Therefore blue is used to denote Prevention Focus behaviour as the blue 'safety' light can help to recall security motivations and vigilant strategies are associated with Prevention Focus.

3.3.2 Differences between Promotion and Prevention Focuses

A Promotion Focus is considered distinct from a Prevention Focus by the types of needs goals satisfy, the type of strategies used, and the emotional reactions to success and failure of

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[15] Approach is a psychological term used to describe being pulled towards a goal. Approach is the opposite to avoid, where avoid is pushed towards a goal.

goals. Both types of Regulatory Focus approach positive end-states, and both avoid negative end-states but with characteristic differences. The key difference is that Promotion Focus is motivated or pulled towards gain situations and is motivated to push away or avoid non-gain situations. Prevention Focus on the other hand, is pulled towards non-loss situations but the motivation is to push away or avoid loss situations. Figure 3-6 is adapted from Higgins (1997) presents the factors inducing a Regulatory Focus or being yielded by a Regulatory Focus.

Figure 3-6: Factors that induce and yield Regulatory Focus (Higgins, 1997)
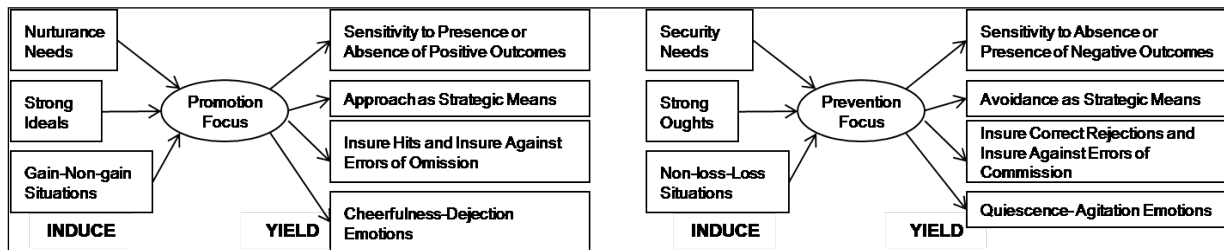
The broad goal of wanting a viable and continuing business may be shared by the majority of business owners, but to understand how changes in access are interpreted by businesses as impacting their business it helps to unpack what other goals they are assessing the disruption against. RFT suggests business reactions can be differentiated by sensitivity to two underlying business concerns. The business concern about change in business growth opportunities and the business concern about change in business security. Contextualising this to a situation where sustainable transport policy initiatives change the access features of a town centre the business' need to attract customers (CA), have a competitive business (BC), or operate in an attractive town centre (TCA) may also be a concern. Table 3-5 illustrates how goals of a business could vary by Regulatory Focus concerns.

Table 3-5: Example business goals varied by Regulatory Focus concerns

	Promotion Focus opportunity concerns	**Prevention Focus security concerns**
Primary goal		
Business goal	To grow and advance the business	To strengthen and protect the business
Secondary goals		
Customer Attraction (CA)	Broaden customer attraction	Protect attractiveness to customers
Business Competitiveness (BC)	Add business competitiveness	Secure business competitiveness
Town Centre Attractiveness (TCA)	Build town centre attractiveness	Safeguard town centre attractiveness

A summary of how the different goal concerns of businesses are expected to relate to Regulatory Focus is shown in Table 3-6 as research expectations.

Table 3-6: Research expectations – business Regulatory Focus goal concerns

E_6	*Goal concerns about the gain or reduction of CA, BC and TCA opportunities will be strongest amongst those focused on the Promotion Focused goal of growing and advancing their business.*
E_7	*Goal concerns about gain or reduction of CA, BC and TCA security will be strongest amongst those focused on the Prevention Focused goal of strengthening and protecting their business.*

Promotion Focus and Prevention Focus use different decision-making strategies to attain their goal. A Promotion Focus uses eager strategies to increase the likelihood of choosing an appropriate action. The rationale is: 'more choices chosen, the more chance of choosing the correct one'. A Prevention Focus uses vigilant strategies to safeguard from choosing inappropriate actions. The rationale is: 'the more careful choices are made, the less chance they will choose the wrong ones'. According to summaries of the Regulatory Focus literature (see for example Higgins, 2000; Higgins and Spiegel, 2004; Molden, Lee and Higgins, 2008), a Promotion Focus will pursue highly valued goals that they feel more certain in achieving with greater tenacity reflecting their eagerness. A Prevention Focus will demonstrate more tenacity towards goals of necessity and greater attainment uncertainty, reflecting their vigilant strategy for protecting against failure.

The distinction between eager and vigilant strategies is a point of interest in this study because it can determine if Regulatory Focus is useful for predicting and encouraging adaptive behaviour. For example, if the Promotion concern of advancing business opportunities is important to a business then, according to RFT, the business would be more likely to apply multiple business strategies, consistent with the strategy of eagerness. This could, for example, also include a greater likelihood of the business taking actions that utilise the new transport options as this would expand their ability to attract customers. In contrast, if security of customer attraction is a dominant concern for the business, then the business is expected to limit strategies to those they are certain will protect the customer attractiveness of their business. This may mean that businesses acting in a Prevention Focus may discount adopting strategies that use the new transport options because they are less familiar and therefore less certain to attract customers. These expectations about how businesses may act in a Regulatory Focus way are presented in Table 3-7.

Table 3-7: Research expectations of strategic actions by choice of Regulatory Focus Goal

E_8	*Where an individual has chosen a Promotion Focused goal, they are more likely to exhibit eager strategies, that is, adopting a large mix of strategies to broaden their chance of attracting customers to their business.*
E_9	*Where an individual has chosen a Prevention Focused goal, they are more likely to exhibit vigilant strategies, that is, limiting their strategies to those certain to protect their business.*

3.3.3 Regulatory Fit

Apart from satisfying their goal needs, there are two additional factors that may influence how an individual may apply a Regulatory Focus to a situation (Brockner, Higgins and Low, 2004). The first is an individual's competence or past successes in using a Regulatory Focus approach in similar situations. The second is the value an individual places on types of Regulatory Focus outcomes. This flexibility to choose a Regulatory Focus has the following implications for observing and predicting Regulatory Focus behaviour. Individuals are not always using the Regulatory Focus they are accustomed to. The same situation can lead the same individual to take different approaches. The degree an individual is successful in executing the desired outcome is likely to vary. The competency and flexibility of individuals to adopt Regulatory Focus strategies is termed 'Regulatory Fit' (Spiegel, Grant-Pillow and Higgins, 2004; Higgins, 2008).

A good Regulatory Fit is one where the chronic or preferred Regulatory Focus matches the Regulatory Focus used. A good fit is associated with a greater degree of ease and confidence. In contrast, a poor Regulatory Fit is one where the mismatch of goal and preferred Regulatory Focus results in a lower degree of ease and confidence. This means, individuals who have developed a high competence or familiarity in both Promotion Focus and Prevention Focus strategies are expected to have additional flexibility and confidence. Therefore in this study, the level of concern a business individual has about the sustainable transport policy disturbance is expected to be moderated by the ease and competency that they can adapt their goals and goal-pursuit strategies to cope with the uncertainty. In other words, those individuals with good Regulatory Fit are expected to behave more consistently to the model of Regulatory Focus behaviour than those with poor Regulatory Fit. The research expectations in Table 3-8 therefore refine expectations previously outlined in Table 3-6.

Table 3-8: Research expectations – Influence of Good Regulatory Fit on perception of impacts.

E_{10}	*When businesses are grouped by Regulatory Fit, the goal concerns of the Good Promotion Focus Fit group will have a smaller variance than the Poor Promotion Focus Fit group.*
E_{11}	*When businesses are grouped by Regulatory Fit, the goal concerns of the with Good Prevention Focus Fit group will have a smaller variance than the Poor Prevention Focus Fit.*

Regulatory Fit has also been used to explain observed differences in how Promotion and Prevention Focuses deal with uncertainty and their commitment to goal pursuit. Setting out goal intentions, has been identified as increasing the tenacity of goal-pursuit, particularly when confronted with challenges or disturbances however, high tenacity of goal-pursuit strategies is not always a positive attribute if the situational changes make it no longer appropriate (Gollwitzer *et al.*, 2008). An openness to change is normally associated with a Promotion Focus whilst Prevention Focus associated with a preference for stability (Liberman *et al.*, 1999). However when a situation is urgent or highly valued the Promotion and Prevention Focuses have been found to exhibit some differences in their strategic choices, with Prevention Focus more willing to abandon ineffective goal-pursuit strategies consistent with a vigilant strategy (Liberman *et al.*, 1999; Brodscholl, Kober and Higgins, 2007). In a comparative analysis of business owners by Hmieleski and Baron (2008), it was observed that success in unstable high risk environments was found to be strongly associated with high levels of Regulatory Fit. No association was observed for stable environments.

These observations about the success of Good Regulatory Fit in unstable environments raise questions about how success is measured when access changes. From a policy perspective, successful businesses may be those that adapt to the new transport access environment quickly. From a business perspective, successful businesses may be those that survive the uncertainty and disruption. RFT suggests there should be some differences in how businesses categorised as Good and Poor Promotion Focus Fit, and those categorised as Good and Poor Prevention Focus Fit respond. Individuals with a Good Prevention Focus Fit are more likely to have greater success by keeping effective strategies, and have greater success by abandoning ineffective strategies. An individual with good Promotion Focus Fit is more likely to have greater success by being flexible in their choice of strategies, especially when they view the action as necessary and urgent. In the context of this research, it is anticipated that Regulatory Focus should influence not only differences in the number of strategies, but

also the willingness of businesses to adapt their business to use the new access resources. How those with a Good Fit and a Poor Fit vary in their strategic response is a point of interest to this research, as it helps to answer the second research question. If it is true that a poor Regulatory Fit reduces capacity of businesses to adapt in unstable environments then it is expected that those with both a Poor Promotion Focus Fit and Poor Prevention Focus Fit will be the least willing to tap into new access resources and instead favour traditional actions. Identifying if, and how business response to goal disruptions varies by Regulatory Fit will be helpful in identifying how policy attention in supporting businesses to adapt may need to vary. These research expectations are summarised in Table 3-9.

Table 3-9: Research expectations – Influence of Good Regulatory Fit on action choice.

E_{12}	*The preference for actions that use traditional resources, including car parking, will vary amongst those with Good and Poor Regulatory Fit.*
E_{13}	*The preference for actions that use new access resources, will vary amongst those with Good and Poor Regulatory Fit.*
E_{14}	*Those with a Poor Promotion Focus Fit and Poor Prevention Focus Fit will favour traditional actions over actions that use the new access resources.*

3.3.4 Measuring and inducing Regulatory Focus

Studies about RFT can be categorised as one of two types. There are studies within the field of psychology that seek to determine if RFT explains motivational behaviour. This literature has produced a number of measures for determining Regulatory Focus (see Table 3-10). The second type of literature is applied research, often emanating from other disciplines, which focuses on testing the value of RFT in different decision-making contexts and amongst different population groups. While some of these studies adopt a Regulatory Focus scale, others use techniques of message framing to induce Regulatory Focus behaviour.

Reviews of the literature show that the most popular scales are those that measure chronic Regulatory Focus. In the Regulatory Focus Strength test (Higgins, 1997) the chronic focus is defined as that which is most 'accessible' or automatic to the respondent when they are under pressure to complete various tasks including identification of attributes for an 'ideal' and 'ought' view of themselves (Liberman *et al.*, 2001). A comparative study of the Regulatory Focus Questionnaire (RFQ) and General Regulatory Focus Measure (GRFM) conducted by Summerville and Roese (2008) identified that, although the two scales were identifying chronic Regulatory Focus they were not measuring the same dimensions. The difference between the two Regulatory Focus scales was attributed to the conceptual framing of Regulatory Focus. The RFQ (Higgins *et al.*, 2001) uses a self-guide definition, drawing on an

individual's recollection of self – particularly during childhood. The GRFM (Lockwood, Jordan and Kunda, 2002) uses a reference point definition, focused on assessing if individuals want to approach desired outcomes (Promotion Focus), or avoid undesired outcomes (Prevention Focus). Summerville and Roese (2008) however found that the GRFM scale was impacted by affectivity, that is what respondents are liking or disliking, which was contrary to the theory on chronic Regulatory Focus.

Table 3-10: Scales used to measure Regulatory Focus

Scale	Measures	Description
Regulatory Focus Strength of Self-Guide (Higgins, 1997; Higgins, Shah and Friedman, 1997)	Chronic Regulatory Focus	Respondents set a task to complete on a computer in a short-time frame. For example, listing attributes in accordance with their own 'ideal' and 'ought' self-view. The chronic Regulatory Focus is theorised as the most accessible under pressure.
Regulatory Focus Questionnaire (RFQ) (Higgins *et al.*, 2001)	Chronic Regulatory Focus	11 item self-administered measure focused on respondents sensitivity of ideals/oughts based on their childhood experience.
General Regulatory Focus Measure (GRFM) (Lockwood, Jordan and Kunda, 2002)	Chronic Regulatory Focus	18 item self-administered measures focused on respondents sensitivity to approach desired outcomes or avoid undesired outcomes.
Regulatory Focus Strategies Scale (RFSS) (Ouschan *et al.*, 2007)	Preferred Regulatory Focus Strategies	14 item self-administered measure focused on preference for eager strategies versus vigilant strategies

The scale used in this study is the Regulatory Focus Strategies Scale (RFSS) created by Ouschan *et al.* (2007). The RFSS is a more appropriate scale for this study than the RFQ or GRFM. Both the RFQ and GRFM measure chronic Regulatory and therefore the items in these scales tend to reference personal experiences of success or failure. The RFSS measures the respondent's preference for eager strategies (Promotion Focus) versus vigilant strategies (Prevention Focus), resulting in a score on each dimension. This means that it is possible for a respondent to have a strong preference for strategies on both Regulatory Focus dimensions, or no preference. This makes RFSS more compatible with a view that individuals can increase their adaptability by developing their competency in goal-orientated strategies. Moreover, the focus on preferred goal strategies in the RFSS means a business goal-decision-making context, rather than other more personal goal pursuit contexts, such as health or relationships could be used. The suitability of the scale items for different contexts and the focus on preferred strategies rather than motivational needs made RFSS more suitable for this study.

Individuals can gain a preference in Promotion Focus and Prevention Focus strategies by practicing goal strategies and learning from past successes and failures. The RFSS scores are an endorsement of Regulatory Focus strategies and therefore provide an indication of competency in goal-attainment, and more specifically adaptability to apply different goal-attainment strategies. Good Regulatory Fit however requires the matching of the Regulatory Focus competency to the Regulatory Focus goal task. This means, an individual with good Promotion Focus Fit should act more consistently to the Regulatory Focus model for Promotion Focus behaviour. An individual with poor Promotion Focus Fit would be expected to be less compliant to the model. This research uses the mid-point of the five-point Likert scale of the RFSS measures of eagerness and vigilance endorsement to categorise level of competency and subsequently Regulatory Fit.

Table 3-11: Research expectations – Competency in goal strategies influencing compliance

E_{15}	*Those with a Good Regulatory Fit will be more compliant to the Regulatory Focus model than those with a Poor Regulatory Focus Fit*

The sensitivity and flexibility of Regulatory Focus choice to context means that a Regulatory Focus can be induced temporarily if the appropriate triggers are used (Higgins, Shah and Friedman, 1997). Appropriate triggers include the framing of information and tasks that place emphasis on a Promotion or Prevention Focus trait (Higgins, Shah and Friedman, 1997; Molden, Lee and Higgins, 2008). For example, message framing focused on how it 'could ideally be' (Promotion Focus) versus how it 'ought to be' (Prevention Focus) triggers Regulatory Focus through goal motivation needs (Briley and Aaker, 2006b).

Inducing a Regulatory Focus, albeit temporarily, could be valuable in identifying opportunities for policymakers to help small businesses focus less on the disruption effects of changes to the street environment, and more on the value of adapting to the new circumstances. Liberman *et al.* (2001) suggest changing the goal for using an individual's resources may be more effective than changing the availability of resources. Policy efforts to develop business skills amongst a small business population, while important, can be resource intensive. Policy messages that tap into different Regulatory Focus needs could be a lower cost and quicker strategy for redirecting business attention to how they can use the new access resources for the benefit of their business growth or business security.

To assess the applied policy value of Regulatory Focus, this research tests if assigning a goal-task using Regulatory Focus message framing will encourage businesses to take desired

adaptive behaviour. In the context of this study, the desired behaviour is for businesses to increase their use of new access resources and reduce their reliance on actions that are dependent upon continued customer car use. The expectations for induced behaviour are set out in Table 3-12.

Table 3-12: Research expectations – Inducing a Regulatory Focus goal task results in Regulatory Focus behaviour

E_{16}	*When a Promotion Focus goal task has been set, irrespective of Regulatory Fit, an individual will adopt strategic behaviour consistent with Promotion Focus.*
E_{17}	*When a Prevention Focus goal task has been set, irrespective of Regulatory Fit, an individual will adopt behaviour consistent with Prevention Focus.*

3.4 Motility resources, business power and policy implications

Question 3: What are the implications for the realisation of sustainable transport policy goals
if business owners' reactions do not align with policy intentions?

To investigate the extent that business goals are at conflict with policy goals this research study codes business actions by their potential power to change customer motility. Sociological understanding of resources and power allows the research to focus on how customer motility is mobilised by businesses as a resource of fluctuating value to advance or protect their business goals.[16]

3.4.1 Mapping policy outcomes after a policy disturbance

Policymakers are aware that reducing car parking and adding more sustainable transport access is a transitional process and that policy goals will not be instantaneously achieved. The travel behaviour change literature identifies various factors that can delay adaptation, these include prior investment in transport modes, habit, location of home and work (Salomon and Mokhtarian, 1997). Figure 3-7 shows the different transitional paths to a policy outcome over time, viewed from a policymaker perspective for reducing car dependency. The sustainable policy goal is somewhere above the equilibrium of customer motility, that is more than 50 percent car use and 50 percent sustainable mode use. Five characteristic forms are illustrated and described in Table 3-13. Two undesirable policy outcomes are business as usual (BAU) where the policy measure had no effect, or the reverse of the intended effect which signals policy failure such as an increase in the proportion of car use. Desirable outcomes include the policy ideal of a complete adaptation to sustainable transport modes, or the achievement of a policy target within the accepted range (lower bounds of the target or higher).

Mapping these characteristic scenarios serves two purposes. Firstly it helps articulate that the future is not guaranteed but subject to the agency of a population of individuals who make choices. Secondly, it provides a framework for assessing the impact of business actions on

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[16] There exist economic and marketing studies that have sought to determine the value of different accessibility attributes to businesses. These methods could be applied to determine the value of motility as a resource to businesses. While acknowledged, this would not contribute to advancing understanding about how to encourage acceptance and adaptation for changes in customer motility.

policy goals in town centres with different levels of barriers and opportunities for customer motility.

Figure 3-7: Changes to customer motility and policy goal outcomes (Source: this research)
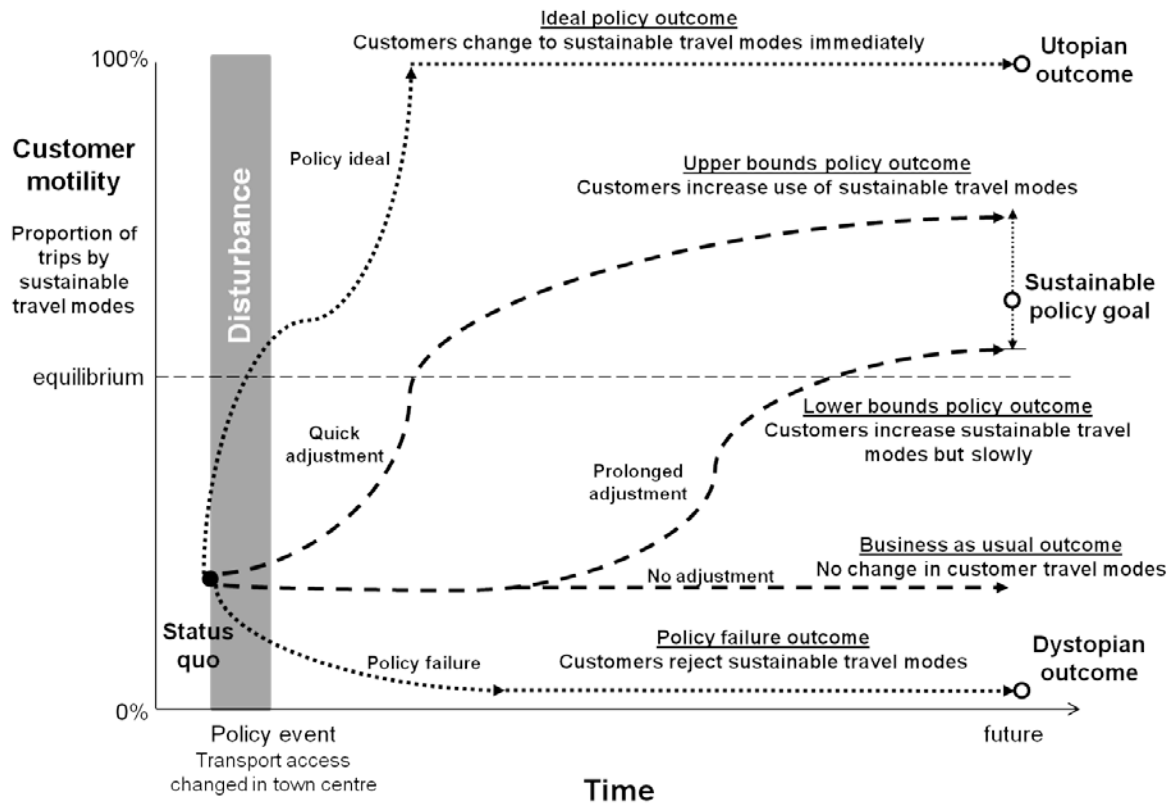
Table 3-13: Five characteristic policy outcomes (Source: this research)

Policy outcomes	Description
The dystopian outcome	The worst case scenario or 'policy failure'. Customers reject and ignore the new accessibility options and increase their use of car travel to 100 percent.
BAU policy outcome	Business as usual. The availability of new access options fails to change customer motility.
Lower bounds policy success outcome	The sustainable transport policy outcome is achieved but involved a period of prolonged adjustment before the majority of customers were using the enhanced accessibility options.
Upper bounds policy success outcome	The sustainable transport policy outcome achieved is greater than the target as a large portion of customers adapted their trip behaviour soon after the disturbance.
The utopian outcome	The best case scenario or 'policy ideal'. The whole population of customers quickly accept and adapt their travel choices to make use of the enhanced accessibility by public transport, cycling and walking.

3.4.2 Tracing the reactions of businesses after a policy disturbance

Businesses act in response to changes in customer motility, but they also act to influence customer motility. Businesses have various resources at their disposal which can be used to manage a successful business. These can be categorised as human resources, monetary resources, mental resources such as marketing knowledge and information, and natural resources such as the physical attributes of their business location including the transport access options (Avelino and Rotmans, 2009). This study adds customer motility as another category of resource.

It is not uncommon for businesses to promote the convenience of car parking to their customers, especially in areas where car travel is the dominant mode choice. Similarly when public transport or cycling access has been enhanced, businesses have an opportunity to market these as new attributes of convenience to their customers. Marketing only the accessibility by car where other options exist, limits the information customers have about the convenience of alternative transport modes. Moreover, only marketing car access options reinforces the notion that travelling by car is the only best choice. When businesses provide customers with biased information or reinforce normalised views about transport they contribute to a less conducive environment for policymakers to change travel behaviour. If new disincentives for car use exist and businesses continue to promote the availability of parking then it suggests businesses are reluctant to adapt. Business reluctance could easily transform into business suffering if customers adapt their destination choices before businesses adapt their strategies to suit the new accessibility of their town centre. If businesses' promotion of car accessibility succeeds in influencing customers to travel by car to the town centre, it will be policy outcomes that suffer. Bad policy outcomes such as unchanged or increased car use and the under-utilisation of new sustainable travel mode options make it more difficult for policymakers to build a case for similar initiatives in the future.

This study uses a sociological power framework, adapted from Avelino and Rotmans (2009), to trace how businesses use actions to capture, cultivate and exchange value from customer motility for the benefit of their business and how it may subsequently impact policy outcomes. The power framework enables the energy (resources and power) that businesses are willing to invest in opposing and adapting their business to the new accessibility of their

town centre to be identified and traced. This research adopts definitions of power dynamics used by Societal Transitions theorists, Avelino and Rotmans (2009) (see Table 3-14). This allows data about the relative resistance or willingness of businesses to adapt to new accessibility resources to be collected, and analysed.

Three power dynamics are used to represent how business pressure could exert an influence on the transitional path, as illustrated in Figure 3-8. Antagonistic business strategies such as those focused on car-dominant customer motility represent a downward force. Synergetic strategies that promote or use new transport access as a resource represent a force to elevate the transitional path. Neutral actions represent no change in the trajectory of the policy path.

Table 3-14: Definition of three power dynamics (adapted from Avelino and Rotmans, 2009)

Power dynamics	Definition
Synergetic	Where power is directed to enable or enforce power enacted by another actor
Antagonistic	Where power is directed to disrupt or prevent power enacted by another actor
Neutral	Where power has no effect on the power enacted by another actor

Figure 3-8: Power dynamics as forces acting to change the policy path
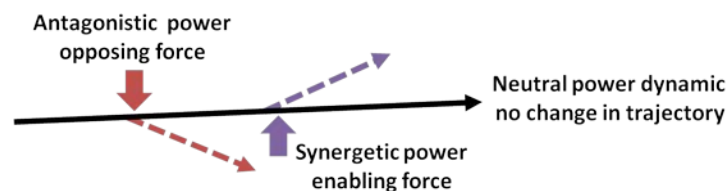
It is unclear in the literature how much power smaller businesses can exert to compromise policy success. There are case-studies that have examined the power dynamics between policymakers and businesses (see for example Flyvbjerg, 2002; Whitehead, 2005; Rye *et al.*, 2008) but these have not quantified the magnitude of force exerted by businesses to support or oppose policy. Quantifying a socially constructed concept in absolute terms has various limitations. This study measures power in relational terms by identifying the proportion of antagonistic and synergetic actions a business is willing to take from a set list. A force value of 1 indicates the business is willing to choose 100 percent of available synergetic actions for the benefit of their business. A force value of -1 indicates the business is willing to choose 100 percent of available antagonistic actions for the benefit of their business. These force values can therefore be used to analyse the pressure on the policy path (see Table 3-15).

Table 3-15: Operationalising the extent of business force on policy path

Power dynamic	Impact on customer motility	Force Value
Synergetic power	Enabling force encouraging higher customer motility	0 to 1.0
Neutral power	No effect on customer motility	0
Antagonistic power	Opposing force encouraging lower customer motility	-1 to 0

Individual businesses in a town centre environment do not operate in isolation but as part of a town centre community. In this study the measures of town centre motility (TCOpportunity and TCBarriers) and the power framework are used to identify the effect of the town centre environment on how businesses capture and exert their power to influence customer motility resources. Town centres can be grouped into four TCMotility types (see Table 3-16).

Table 3-16: Categorising town centres by TCMotility

TCMotility measure	Group 1	Group 2	Group 3	Group 4
TCOpportunity	High	High	Low	Low
TCBarriers	High	Low	High	Low

The town centres closer to the policy ideal are those with high TCOpportunity and high TCBarriers, the town centres requiring the most policy intervention are those with low TCOpportunity and low TCBarriers. Analysing individual business responses by the TCMotility group they belong to helps this study to identify the level of business resistance policymakers are likely to encounter in different town centres.

3.4.3 Business power and Regulatory Focused goal pursuit

The cyclic goal-orientated decision-making model allows this study to observe how businesses adapt their power practice in response to changes in accessibility and customer motility. Data is collected from more than one decision-making cycle. Observing an individual's decision-making more than once makes it possible to observe if businesses alter their actions and under what conditions. The coding of actions against the power framework combined with the categorisation of Regulatory Focus goal concerns and preferred goal-attainment strategies allows this study to observe if:

- businesses change their use of resources and power dynamic in different scenarios

- the adaptability of businesses to tap into the new access reflects the Regulatory Focus model of strategic behaviour

- framing messages by Regulatory Focus induces businesses to adopt strategies aligned to policy goals.

The presentation of the policy intervention in three stages, aids the testing of hypotheses for RFT. As shown in Table 3-17, the first two events determine how businesses use their power to adapt or react to the policy disturbance. The scenarios used in event three determine if Regulatory Focus could be used to reframe policy messages to encourage adaptive synergetic behaviour. As each action can be coded as synergetic, neutral or antagonistic the set of actions a business individual takes can be calculated for each scenario. This opens up new opportunities to measure and compare the power exertion amongst businesses. The observations about exerted power, albeit not absolute, could furthermore improve policy analysis of how even small businesses, may influence a new trajectory of customer motility over time.[17]

Table 3-17: Three events scenarios representing two policy disturbances

Policy disturbance	Scenario	Scenario description	Decision-making stage
Disturbance 1	Event 1	The new enhanced accessibility options for public transport, cycling and walking	The initial reaction
	Event 2	The loss of car parking to enable the new accessibility options.	Subsequent reaction
Disturbance 2	Event 3	Changes in customer expectations (new values aligned with policy goals)	Reaction to alternative policy framing using Regulatory Focus

Incorporating motility and the power framework with Regulatory Focus is an innovation which allows this study to infer about behaviour at a collective level. If businesses decision-making behaviour aligns with the Regulatory Focus model, this provides a new way to understand why businesses do not adapt to changes in access at the same speed or in the same way. Additionally, if triggers for Regulatory Focus behaviour are found to induce Regulatory Focus behaviour then policymakers may have a new means for encouraging adaptive behaviour that is synergetic to policy goals. These research expectations are set out in Table 3-18.

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[17] Modelling is out-of-scope of this research but is identified in Chapter 8 as an opportunity for future research.

Table 3-18: Research expectations – Regulatory focus framing and changes in behaviour

E_{20}	*The positive framing of goal disruption by Regulatory Focus will increase the take-up of actions that use the new access resources and are synergetic to policy goals.*
E_{21}	*The willingness of businesses to adapt their behaviour in synergy with policy goals is affected by Regulatory Fit, that is, the matching of goal-orientated competencies and matching of goal task.*

The Town Centre Business Survey is the method used to observe how businesses tap into the town centre motility resources to capture and cultivate value from customer motility. Examples of businesses' past use of motility resources and business power collected from the historical case-study and focus groups are used to make scenarios and actions in the Town Centre Business Survey meaningful. The design of the survey instrument is presented in Chapter 5.

3.5 Conclusion

Framing the research problem from a number of different perspectives helps to scope the data requirements for an appropriate and robust analysis of how businesses adapt their goal-orientated decision-making. This chapter demonstrates how the cyclical goal-orientated model acts as a common framework to study the phenomenon of business opposition at multiple scales and over time. The chapter also demonstrates how the sociological concepts of power and motility work with RFT to study how businesses may perceive, judge and act in response to changes to their town centre environment. In the next chapter the historical case-study and focus groups with Local Government staff help to contextualise expectations about Regulatory Focus behaviour and the type of actions businesses may reasonably take to exert their power.

Chapter 4   Review of past business adaptation[18]

This chapter addresses the first research question: "To what extent do businesses perceive changes to transport access options in a town centre disrupts their business goals?" It does this by examining the context of the study area and examples of how businesses in the study area have reacted in the past to changes in customer motility or the implementation of sustainable transport policy initiatives. Observing the past can help to identify the role of key events, players and power dynamics to transition society to today's 'everyday experience'. The experience of everyday varies within a city, and within neighbourhoods. Nevertheless adjacent neighbourhoods and adjacent local government authorities (LGAs) share some common history and their proximity to each other results in similar points of reference for judging good and bad transport access in town centres.

It is important to incorporate a local government perspective in this study. In Australia, it is the LGA that set guidelines for local infrastructure, including the availability of car parking in town centres. The study area comprises of three adjacent LGAs who want to grow the economic, social and environmental capital in the region but also want to reduce car dependency. A historical study and focus groups held with local government staff are used to draw out themes of concerns and strategies used by businesses to capture motility value for their business. The findings from both methods are then used to inform the design of the Town Centre Business Survey, which is the focus of Chapter 5.

This chapter is organised as follows. First, information is presented about the study area and why it was chosen. Next, the historical case-study is presented, which analyses the efforts by businesses to adapt to changes in customer motility. This is followed by insights from focus groups about how current-day businesses adapt to changes in customer motility, and town centre motility. This chapter includes a summary of expectations about how Regulatory Focus reflects the goal-orientated concerns and actions of businesses and these are used as inputs for the design of the Town Centre Business Survey – the subject of Chapter 5.

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[18] The historical case-study in this chapter is partially published in Moutou (2013) and Moutou (2009).

4.1 The study area

Sydney is a city that was founded at the beginning of colonialisation in 1788 and has over time evolved into a highly urbanised global city. In 2011 the population of Greater Sydney was estimated to be 4.61 million (Australian Bureau of Statistics (ABS), 2011a). As a relatively young city, the introduction of mass transit, and later the motor vehicle had a substantial influence on the urban landscape. As in other parts of the world, each mode of transport technology presented a change of motility opportunities and travel behaviour to Sydneysiders. The ease of travelling longer distances more quickly opened up new areas on the periphery for housing and employment and the establishment of town centres. The suburban town centres established before the invention of the car were clustered around the railway stations, or located along the tram routes (Lee, 2010). By the 1950s, the city's transport and urban landscape had adjusted to support modern transport technology - the bus and private car, with the last of the tram lines pulled up in 1961. The car is now the dominant form of transport for Sydneysiders, and the continued expansion of Sydney has been principally enabled by the building of motorways, with public transport connections established after the fact.

In 2013, Greater Sydney spans an area of 12,367 km, administered by 43 local government areas. The economic, health and environmental costs of car dominant transport systems have now become apparent in Australian cities and has motivated a general shift in policy thinking. In 2012 the cost of congestion was estimated at over $6 billion and projected to grow to $8.8 billion by 2020 (NSW Government, 2012 p.105). Traffic congestion is a daily problem and no longer restricted to the working week. At the city-wide level, using public transport to move large flows of people to employment hubs or special events is regarded as a more economical and environmentally efficient transport strategy. However, for many Sydneysiders the car is not just a preferred mode of transport, it is a necessity as alternative modes are not appropriate to meet their mobility needs.

In the more densely populated parts of Sydney where converting existing land use to accommodate car parks and motorways is more difficult and expensive, there are LGAs wanting to increase use of public transport, cycling and walking as part of a local sustainability agenda. The capacity of these LGAs to encourage less car dependence is greatest where connectivity to town centres by public transport, by bike or foot is easy. This study focuses on an area administered by three such LGAs in the inner city of Sydney - The

City of Sydney (CoS), Leichhardt Municipal Council and Marrickville Council (see Figure 4-1). These three Councils are at the forefront of the 'Sydney experience' of trying to reduce the dominance of car travel by implementing sustainable transport policies, and as elsewhere, face the policy challenge of local business opposition. The policy challenge is two-fold. How to best overcome business concerns about policies that reduce car accessibility to town centres, and how to ensure these policies fulfil their potential to make local centres better connected, more vibrant and sustainable.

Figure 4-1: The location of the three LGAs in relation to the Sydney Metropolitan Region (Source: this research)
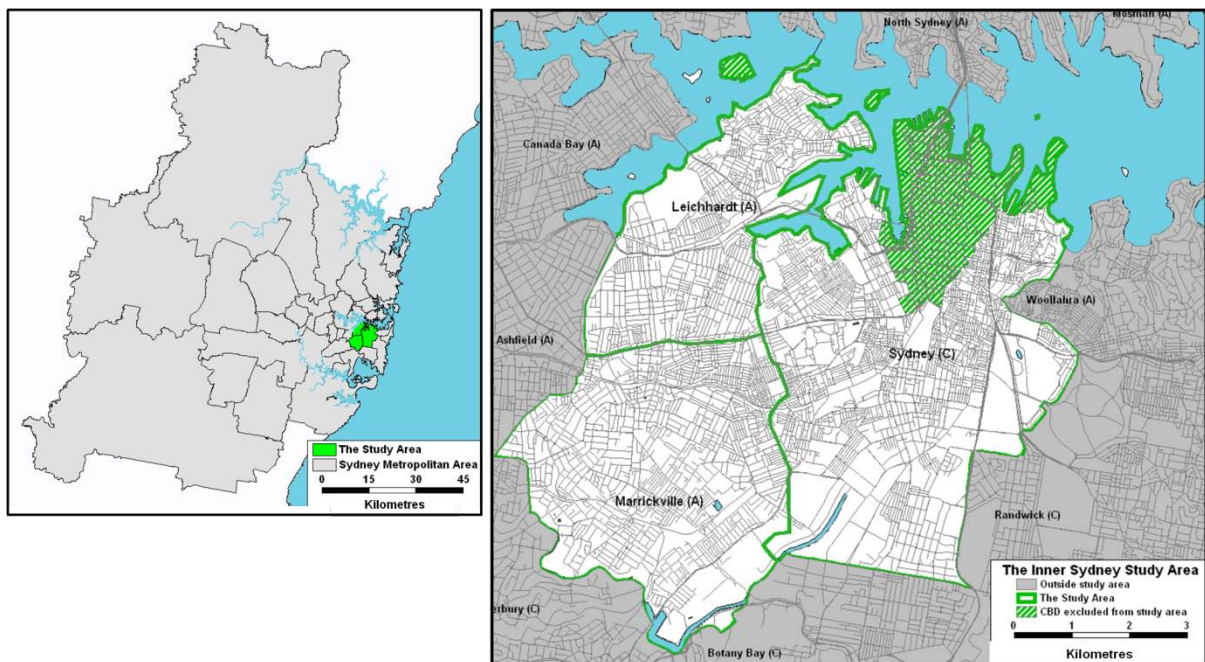
4.1.1 The three local government areas

The three Councils share some common features, making them distinctive compared to other parts of Sydney. The site of the first colonial settlement in 1788 is in the City of Sydney, and therefore it has the oldest suburbs and centres. Leichhardt and Marrickville Councils became more urbanised with the construction of the tram and heavy rail network in the later half of the nineteenth century. The three LGAs experienced similar phases of land use changes – bush to agricultural to mix of residential and industrial use. Since the 1970s the study area has become increasingly gentrified as manufacturing and port activities were moved to other parts of the city (Bounds and Morris, 2006). It is now a popular place to live (as evidenced by rental demand and house prices), particularly amongst professionals due to its proximity to the central business district (CBD) and precincts for tertiary education, culture and

entertainment. The study area is well served by public transport in contrast to other areas of Greater Sydney. Many of the town centres and strip shopping are located around train stations or along the old tram routes, now served by bus. Vehicle ownership and car mode share within the study area is lower than in other parts of the Greater Sydney area (see Table 4-1). There have been various proposals aimed at increasing options for sustainable transport and reducing traffic congestion within the area. These have included pedestrianisation of main streets, introducing clearways on key arterial routes, the introduction of parking meters and the planning of new transport systems[19] – monorail, light rail, metro rail and bike lanes.

Table 4-1: Characteristics of the three local government areas (LGAs) (Source: Australian Bureau of Statistics (ABS), 2011b)

Spatial region	Greater Sydney	City of Sydney (CoS)	Leichhardt	Marrickville
Land Area	12,367 km^2	26.7km^2	10.5km^2	16.5km^2
Persons	1,152,548	169,505	52,198	76,500
All private dwellings	1,720,333	94,341	24,669	34,486
Average people per household	2.7	1.9	2.3	2.3
Average vehicles per dwelling	1.6	0.8	1.3	1.1
Travel mode of people who travelled to work on census day…				
by car as driver or passenger	58.4%	25.3%	43.9%	39.2%
by public transport	20.0%	30.6%	28.9%	35.5%
Top 5 modes for employed people aged 15 years and over				
Car, as driver	53.7%	22.8%	40.4%	35.8%
Car, as passenger	4.5%		3.3%	
Train	9.1%	12.4%		20.5%
Bus	5.2%	13.2%	18.8%	8.8%
Walked only	4.1%	25.3%	5.4%	5.5%
Bicycle		3.0%	2.8%	3.3%

Despite the small geographic size of the areas they administer, each of the LGAs has its own planning rules, infrastructure and works programs, system of fees and charges, and elected politicians. They have limited powers to influence strategic transport services, such as bus routes or rail infrastructure passing through their area, but have planning controls over local

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[19] The more complex and expensive transport projects are generally those initiated by the State government, though not all have been considered successes. For example, the cancellation of the metro rail project is largely a result of stakeholder opposition in Leichhardt, which made it politically untenable for the State government.

roads and land use. This presents an advantage to this study as it enables the analysis of subtle contextual political or environmental factors that may influence business opposition to sustainable transport policies.

City of Sydney, Leichhardt and Marrickville Councils all place importance on having vibrant and thriving local town centres that are well connected and accessible by walking, cycling, public transport and car (see Table 4-2). They have each developed policies in consultation with their communities, which, to different degrees of resource commitment, encourage more use of sustainable modes of transport. All three Councils have developed bike plans, accessibility plans and actively encourage car-share schemes. This reprioritisation of access by sustainable modes of travel over car transport is reflected in their respective planning instruments (known as Development Control Plans or DCPs). For example, all the Council's have specific requirements for bike parking and end-of trip facilities (showers, lockers) in their DCPs and have stated support for the provision of car-share schemes. These policy priorities reflect contemporary expectations and 'best practice' thinking about sustainability.

However, differences in policy approach are also evident amongst the three Councils. In a revised DCP (commencing in 2011) Marrickville Council used a variable parking requirement so as to apply greater parking constraint areas where accessibility options by sustainable transport is greater. City of Sydney draft DCP (released in 2010) specifies a maximum parking rate whereas Leichhardt Council's DCP for parking (last revised in 2003) specifies minimum and maximum generic parking rates. These different policy approaches give different comparative advantages to the town centres – and is expected to be an influence in how businesses view current customer attraction (CA), business competitiveness (BC) and town centre attractiveness (TCA).

The past implementation (or not) of transport policy initiatives act as local reference points for transport policy success and failure amongst policymakers and businesses. Within each LGA, businesses have different local terms of references that may influence their expectations about new sustainable transport projects. Direct experience may be most influential in forming business knowledge but businesses' exposure to second-hand knowledge can also be influential. The historical case-study and focus groups contribute to understanding what references points may be informing business expectations in this study.

Table 4-2: Strategic plans of the LGAs and specific strategic objectives related to increasing connectivity of town centres by sustainable transport

Strategic plan	Strategic objectives	Strategic actions
City of Sydney (2011) *Sustainable Sydney 2030 Community Strategic Plan*	3. Integrated transport for a connected City	3.3.2 Increase access for sustainable transport modes.
		3.3.3 Manage car travel demand.
		3.3.4 Develop sustainable travel initiatives.
		3.3.5 Investigate transport pricing mechanisms to encourage sustainable travel.
		3.3.6 Develop a comprehensive parking strategy that supports land use, environmental and sustainability policies.
	4. A City for pedestrians and cyclists	4.2.1 Manage streets to encourage walking, cycling and the use of public transport.
		4.2.4 Implement part-time or full time road lanes and street closures where outdoor activities can be encouraged.
Leichhardt Council (2007) *Leichhardt 2020+ Strategic Plan*	2.1 Develop integrated plans to reduce our dependence on private cars for local regular community activities and trip purposes.	Link alternative access strategies to reduce our dependence on cars for local regular community activities and trip purposes (eg sustainable energy transport, perimeter parking, shuttle buses, home delivery, car share, bike ways, walkways, place plans for local services and employment, and culture change program).
	2.3 Develop transport systems that integrate local access needs with regional transport.	Develop parking, traffic, road safety, active (cycling and walking) transport, public transport and community transport strategies that integrate with the objectives and strategies of the Accessibility Plan through place based planning.
	2.4 Plan local community facilities, businesses and services to fit the places we live and the way we want to live.	Develop place plans to integrate community, business and service activities with less dependence on cars.
		Ensure footpaths and roads are also suitable for people with special needs, pedestrians and bikes.
	5.2 Develop accessible and environmentally sustainable businesses that help to build local communities and reduce our dependence on private cars.	Integrate our business and community strategy with the community's accessibility and environmental sustainability strategy.
Marrickville Council (2010) *Our Place, Our Vision: Marrickville Community Strategic*	3.2 More of the community walk, ride bikes and use public transport	(b) Improve the accessibility and condition of the local network of footpaths
		(c) Ensure that there is a well connected, well maintained and clearly signed network of cycleways and cycle facilities
		(d) Encourage alternative transport modes, including community transport, and reduce car

Plan		use
		(e) Increase the accessibility of railway stations and bus stops
		(f) Support the introduction of light rail within, and connecting to, the Marrickville area
	3.3 Marrickville's roads are safer and less congested	(c) Increase pedestrian and cyclist safety, particularly around schools and urban centres
		(e) Ensure car parking is well managed
	3.4 Marrickville's streets, lanes and public spaces are sustainable, welcoming, accessible and clean	(a) Create sustainable streets, lanes and public spaces in partnership with the community
		(b) Improve streetscapes in local urban centres

Sources: (Leichhardt Council, 2007; Marrickville Council, 2010; City of Sydney, 2011)

Table 4-3: Comparative financial and human resources amongst the three LGAs (2010-11 financial year)

LGA	Total Income from continuing operations	Income from Residential Rates	Income from Business Rates	Total Expenses from continuing operations	Number of staff
Sydney	$504,901,000	$46,825,000	$170,791,000	$390,798,000	1553 full-time 197 part-time[20]
Leichhardt	$77,489,000	$23,186,000	$11,254,000	$69,029,000	321 full-time 79 part-time[21]
Marrickville	$90,516,000	$21,842,000	$15,656,000	$91,072,000	433 full-time 63.4 FTE part-time[22]

Sources: Financial data extracted from the Annual Reports published by each Council (City of Sydney, 2012; Leichhardt Municipal Council, 2012; Marrickville Council, 2012). Data about staff numbers was sourced from direct email communication with staff in each Council, as referenced in footnotes.

[20] City of Sydney Council staff increased in 2011-12 to 1573 full-time and 207 part-time (J. Hockley-Franks, 2012, pers. comm., 3rd August).

[21] Leichhardt Council confirmed that from year to year staff numbers have been steady with movement is usually taken up by casual staff (P. Foley, 2012, pers. comm., 24th July).

[22] Marrickville Council staff increased in 2011-12 to 450 full-time and 88.3 full-time equivalent (FTE) number of part-time staff. (J. Robinson, 2012, pers. comm., 13th August).

4.2 Historical case-study of Marrickville LGA

To address the first research question about business response to changes in transport accessibility, a historical case-study on the creation of car parking within the Marrickville Council area during 1968-1987 was undertaken. This case-study serves a number of purposes. Firstly, to provide an alternative perspective on how businesses adapt to changes in customer motility, by focusing on a period where car use was increasing but town centres were structurally ill-equipped to benefit through insufficient parking. Secondly, reviewing a 20-year period helps to examine the effect of a dynamic between 'policy goals' and 'business goals', and how the alignment of these goals changed over time. Thirdly, the case-study is used to identify examples of how businesses have exerted their power to achieve goals important to their continued business success.

Figure 4-2: Map of Marrickville Municipal Council and the three centres
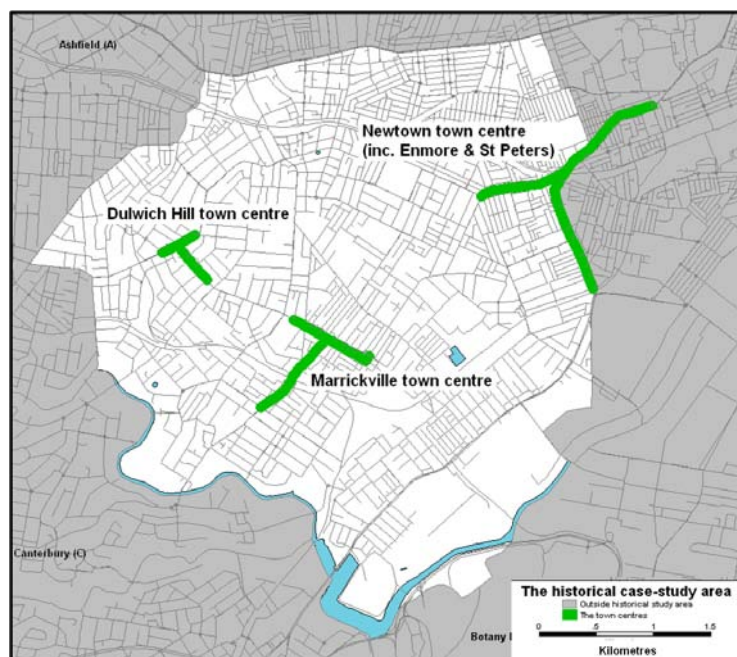
The historical case study focuses on three town centres within the Marrickville Council area – Marrickville, Dulwich Hill and Newtown which encompasses Enmore and St Peters (see Figure 4-2). [23] The source material is primarily from media accounts published in local newspapers about the efforts to build off-street car parking. The records are stored in the

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[23] The boundaries and number of Councils in the study area have changed over time. Most of the small municipalities originally formed in nineteenth century Sydney have been amalgamated as population and resourcing needs changed. The most recent Council amalgamations resulted in the Marrickville Council in 2012 resembles that in 1968, though neighbouring Councils have changed. In 2004 the City of Sydney expanded taking over area previously administered by South Sydney Council and some parts of Leichhardt Council.

Archival Heritage Centre (AHC), Marrickville Council, Petersham NSW (see Table 4-4 and Table 4-5). Records pertaining to the proposed and eventual change in land use, also kept at the AHC, were used to substantiate and identify alternative viewpoints. The decision to collect newspaper clippings over five decades was that of a single Council officer, Chris Meader, who recognised early on that the planning and construction of the car parking was an issue of local significance as it was changing the urban environment and a issue of controversy (C. Meader, 2009 pers. comm., 21st July).

Table 4-4: Articles by year of publication and town centre

Dates of articles	Marrickville	Dulwich Hill	Newtown
1968-72	20	2	0
1973-77	4	18	1
1978-82	2	3	5
1983-87	1	0	0
1988-92	5	0	1
Total	32	23	7

Care needs to be taken in using unobtrusive source material such as media articles and archival records to build an accurate picture of past events. Decisions made by journalists, editors and Council officers about what to include or exclude from the historical record mean not all sides of the story may be represented. The portrayal of 'the facts' are also subject to choice of words and the sequence in which news is reported. In recognition of the difficulty in ascertaining truth, a methodology of comparing efforts by businesses in each town centre to convince Council to build off-street car parking underpins this case study. This comparative analysis draws out the differences experienced by the three town centres, and differences observed over time as businesses and Council developed knowledge about what was required to equip town centres with car parking. This approach helps to understand the origin of current beliefs about the importance of town centre car parking in the study area and therefore an alternative viewpoint in which to examine the contemporary policy challenge.

4.2.1 The policy background

The 1960s in Sydney was a time where increasing car ownership and car use was transforming the urban landscape, the mobility experience and commercial opportunities. Car travel was favoured over traditional modes of travelling. This change in customer motility not

only marked a shift in how people travelled to shop but also in their choice of shopping destinations. Shoppers who owned cars were no longer limited to public transport, walking, or cycling and therefore were less constrained by distance, pre-determined routes or carrying ability. The growth in private car ownership placed new pressures on the road network in town centres. Inadequate parking supply was resulting in traffic congestion which could make it a less attractive destination to shoppers.

While the system of zoning land for designated uses in Australian cities meant all town centres in Sydney were vulnerable, in practice it was the city and inner suburbs that were the first to experience the strain of increased car use. The narrow and busy streets provided insufficient space for curb-side parking and the tightly packed existing development meant there was less open space that could be easily and inexpensively converted into off-street parking lots - a policy advocated by urban planners for relieving congestion in town centres (Neutze, 1978 p.125). The town centres of Marrickville Council were structurally and spatially ill-equipped for car traffic. Motorists could choose to shop at one of the competing town centres but this would offer little benefit to customers if the town centres were similarly constrained. This changed in 1965 with the opening of Roselands, a large purpose-built regional shopping centre, 10 minutes drive south-west of the Marrickville area.

Roselands was different in scale and appeal to the enclosed malls that opened a few years earlier, as it brought city shopping choices to the suburbs. It was marketed as a 'superior shopping convenience' as customers had access to a compact and large cluster of big name retailers under the one roof and a large amount of car parking (Neutze, 1978 p.218). Its multi-deck car parks optimised space and reduced walking distance to the shops thereby reducing effort costs and consumer fatigue (Reimers and Clulow, 2004). In 1966, the town centres of Marrickville faced competition with the opening of three more regional shopping centres: East Lakes to the east, Burwood Westfield to the north-west and Bankstown Square to the west of the Marrickville area. Customers frustrated with difficulties in getting parking in Marrickville therefore had new shopping options. If Marrickville's town centres were to remain viable and competitive they needed to modernise to attract customers.

4.2.2 The story of creating parking in town centres of Marrickville

Marrickville Council in partnership with the business community began planning to modernise Marrickville in 1960 (Anonymous, 1968c). Their plan was to create off-street car

parking to help the economic centres of Marrickville LGA compete and survive (Anonymous, 1968c) – in effect changing the access features of the town centre to converge with the changes in customer motility. Attracting new commercial developments with parking proved too difficult as it required negotiations with too many individual property owners (Anonymous, 1968c). Instead Council sought to acquire properties themselves, with financing support from businesses, and developed their own off-street parking asset. This case study focuses on six car parks created by the Council – three in Marrickville town centre, two in Dulwich Hill and one in Newtown (see Figure 4-3).

Figure 4-3: Location of the off-street car parks in Marrickville, Dulwich Hill and Newtown

Marrickville

Dulwich Hill

Town Centre Car Parks	Car Spaces
Marrickville	
Shrublands	58
Illawarra Rd	43
Victoria Rd	120
Dulwich Hill	
Seaview St 1	50
Seaview St 2	50
Newtown	
Lennox St	48
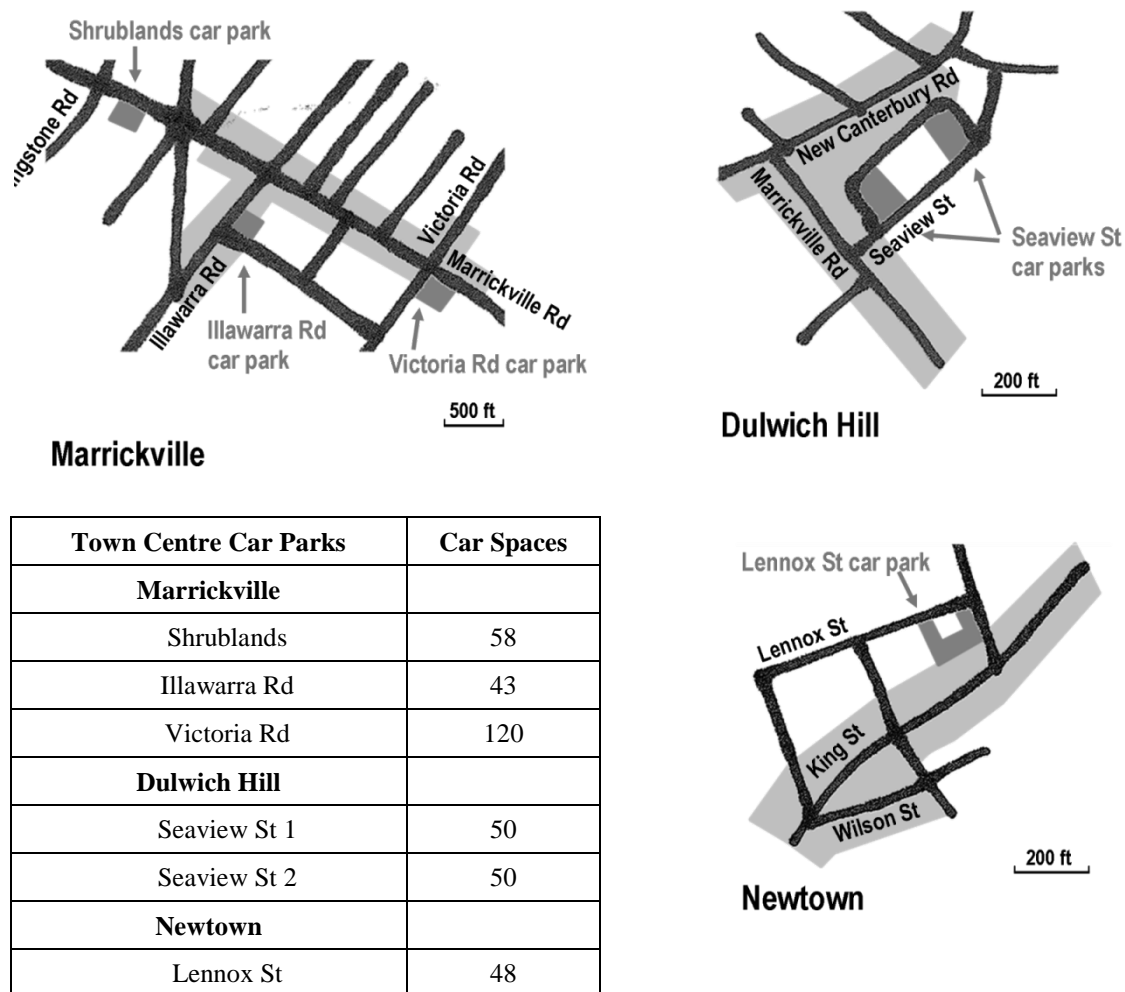
Newtown

Sources: Images this research. Car space data for Marrickville sourced from (Anonymous, 1968b), Dulwich Hill from (Anonymous, 1975a) and Newtown (Anonymous, 1979b).

The newsworthiness of the car parks changed as the novelty and the realities of planning, constructing, opening and managing car parks were understood to be slow and difficult. The largest number of media articles relate to the lead up and official opening of the first of these, the 222 new off-street car parking spaces in Marrickville town centre in July 1968 (see Table

4-5). A special edition *Free Weekly* newspaper was published in partnership with Marrickville Council and included illustrations, photos, articles and instructions for using the new convenience of the car parks for shopping in Marrickville. Of the three car parks, the Victoria Road multi-deck parking was the most expensive and most celebrated. Its represented a significant capital investment costing $128,000 to build, amounting to $1,067 per parking space (Anonymous, 1976a).[24]

Table 4-5: Articles by topic and town centre

Article topic	Marrickville	Dulwich Hill	Newtown
Planning and financing	9	11	4
Construction	3	3	0
Opening	15	2	0
Operating	5	7	3
Parking use (poor and high)	2	0	0
Parking dispute	1	6	3
Parking safety	2	1	0
Total	32	23	7

The focus of media articles about Dulwich Hill car parks were less celebratory (see Table 4-5). The amount of news coverage could reflect the significance of car parks to the local community. It could also be a reflection of the persistent advocacy of the local newsagent owner who was also actively serving on Marrickville Council – Alderman Jack Shanahan.[25] More than half of the 23 articles focus on the frustrations of negotiating, planning and financing the car parks in Dulwich Hill including claims, by Alderman Shanahan, that Marrickville town centre was getting favoured treatment. Businesses in Dulwich Hill reportedly paid a levy for many years before they got their first car park. In contrast, the Marrickville car parks had funding support from the Council as a bank loan was organised to supplement funds raised through a levy on local businesses in the Marrickville town centre. Articles about the Dulwich Hill car parks start in 1969, but purchasing property and negotiating acquisition of the rear of business properties took a long time. The first of the Seaview car parks opened in 1970, the second was completed in 1977 (Anonymous, 1977a).

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[24] The Reserve Bank of Australia (RBA) online inflation calculator estimates the value of $128,000 in 1969 equals $1,413,246 in 2012. This estimation assumes an annual average inflation rate of 5.6 percent. ww.rba.gov.au/calculator/annualDecimal.html

[25] Alderman was the title used in this period for elected officials to Councils, but this has since changed to Councillor.

Later the media articles shifted focus to disputes about fair use – with Alderman Shanahan objecting to staff at the local high school using the parking (Anonymous, 1974; Anonymous, 1976b; Anonymous, 1978a; Anonymous, 1978b; Anonymous, 1981).

Coverage of the Lennox St car park in Newtown was more similar to Dulwich Hill but the policy context was different again. In 1974, Newtown was on the border of three different LGAs – South Sydney, City of Sydney and Marrickville Councils. Additionally King St, the road running though Newtown town centre was then, as now, strategically significant to the State government for moving heavy flows of truck and car traffic though the city. Other sections of Newtown already had off-street parking, which benefited businesses across the street in South Sydney Council, but was less convenient for customers wanting to shop in businesses in the Marrickville Council controlled part of Newtown.

In 1974, Marrickville Council and the Newtown business chamber shared a belief that an off-street parking was necessary for the town centre economy to survive. Newtown was a major town centre with entertainment venues and businesses attracting people from outside the area. Off-street car parking would alleviate traffic congestion caused by motorists cruising for parking and secure its viability as a destination (Neutze, 1978; Shoup, 2005). The proposal, put forward by the business chamber was for a multi-storey car park on Lennox St (Anonymous, 1977b). However there was disagreement amongst the Councillors about the appropriateness of spending so much money. One unnamed Alderman described it as an "irresponsible and extravagant decision" that would "have only a small effect on the overall situation and benefit few" (Anonymous, 1979a). The high costs related to the need to acquisition land which was occupied by a Baby Health Care Centre, a factory, an office and seven residential properties ("Lennox St, Newtown" records in *Marrickville Council Town Planning Committee Minutes Ref. 13/1974* at AHC, Marrickville Council). The community also questioned the value of the project due to the loss of community assets. The local Reverend Don Meadows reportedly captured this community sentiment when he criticised Council for having its priorities wrong as "providing spaces for cars before people is putting things back to front" (quoted in Anonymous, 1977b).

The Lennox St single level car park opened in 1979 giving Newtown an additional 48 parking spaces. The project cost $350,000 with $205,000 spent purchasing the factory.[26] The intention to construct a three-level car park with 139 car spaces proved impossible because there was insufficient space and budget to satisfy the engineering specifications for car parking ("2-10 Lennox St, Newtown" on microfiche at AHC, Marrickville Council). The cost of $7,292 per parking space was $6,225 more expensive per space than the Victoria Road multi-deck parking built eleven years earlier.[27] The high cost was contentious, with some Aldermen noting the money would have had more value in the other town centres where property was cheaper (Anonymous, 1979b; with the budget later revised as $350,000 as reported in Anonymous, 1979a).

4.2.3 Relationship between business goals and policy goals

At the beginning, the policy goals of the Council were aligned to the goals of businesses as demonstrated by the enthusiastic coverage of the car parks as part of Marrickville's modernisation. Twenty adverts and congratulatory messages from local businesses were contained within the Free Weekly special edition commemorating the event. As Dulwich Hill businesses sought to get off-street car parking, the alignment of policy goals was not so strong. The rationale for car parking remained – but there was a divergence of priorities. The Council had become increasingly aware of the difficulties of negotiating with property owners, and the importance of finding convenient and appropriate locations for car parking. Local Councils are funded through the rates paid by landowners and businesses who operate within the municipality. Funds for car parking were an additional capital expense and therefore required raising of additional revenue. Investing funds and effort in town centres that could compete with the regional shopping centres was argued as more appropriate for the Council whose role was to attract commerce that would benefit the community of the LGA, as a whole. For local businesses in smaller town centres such as Dulwich Hill, increasing car parking supply in their town centre was a priority as it directly related to their livelihoods. In defence of businesses in smaller centres, advocates such as Alderman Shanahan argued that the town centre did not just provide a "convenience to the people" but the businesses within

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[26] The RBA online inflation calculator (www.rba.gov.au/calculator/annualDecimal.html) estimates $350,000 in 1979 equates to $1,477,900 in 2012, using an annual average inflation rate of 4.5 percent.
[27] The 1969 cost per parking space in the Victoria Rd car park is estimated as costing $2,790 in 1979 using an annual average inflation rate of 9.1 percent according to the RBA online inflation calculator. The Lennox St parking is therefore still $4,502 more expensive per parking space.

them also contributed to Council revenue – reportedly noting "the goose that lays the golden egg must be protected" (Anonymous, 1975b). Businesses may have recognised benefits in forming co-operative relationships with other businesses in their cluster, but they showed less or no motivation in helping Marrickville become the premier shopping location. The power dynamic therefore may have been synergetic in relation to the importance of attracting customer motility oriented around car travel – but was more antagonistic in relation to the businesses opposing the allocation of Council's limited financial resources for new infrastructure in the LGA.

The coverage of Lennox St car park was not extensive but it does show another gap forming between the goals of Council and businesses. Issues about equity and fair use, and the balancing of residential community and business community needs became issues of increasing importance. The tendency of individuals to maximise their own self-interests was anticipated, as evident in the guidance provided in 1968 on the use of the new Marrickville car parks:

> *"People should use them for only for the two-hour limit, thereby making them available for other people, just the same as they would return a book to the library to make it available for re-issue.*
>
> *Shopkeepers or their employees who used the car parks would be depriving a shopper of a parking space and possibly themselves of a customer."*
>
> *Mr. A. Backhouse, President of Marrickville Chamber of Commerce (Anonymous, 1968a)*

Whilst there was broad agreement that the car parking was a public asset that needed to be shared, there was not a consensus on how a 'fair' share was to be enforced. As today, fining motorists who overstayed the time limit required Council resources for enforcement and a commitment of Councillors to ride the political storm. Council parking fines were then, as today, viewed with suspicion as revenue raising policies rather than protecting the equitable use of the car parking. A controversy in Dulwich Hill illustrates the point. Ninety-four people, including 46 local high school teachers and some shopkeepers received fines for exceeding the permitted time limit at Seaview car park. The news coverage before the enforcement effort included reports of Alderman Shanahan actively encouraging the Council to enforce the rule, but after the fines the newspapers accused the Alderman of being a

'dobber' (Anonymous, 1978b).[28] It was difficult for the Alderman to hold his ground. He asked the Council to pardon the fines explaining that, "Morally they are not right to park in the car park, all the time, but it has made me unpopular with my constituents." (Anonymous, 1978a).

The media's coverage of events included references to actions business took in response to these changes in customer motility and the competitive environment in which they operated their business. Table 4-6 presents these actions in relation to the goal framework underpinning this research. Some actions share a common strategic aim such as to address a common disruption or barrier to goal fulfilment. These involved the mobilisation of resources, including people whose own decision-making power were a potential barrier to the business' goal fulfilment. Three of the goals relate back to those identified in the review of the literature – customer attractiveness, business competitiveness and town centre attractiveness. Increasing parking supply is a more specific goal, but also a strategic business action aimed at increasing town centre attractiveness when customer motility is orientated around car travel.

Business adverts were published alongside some of the news articles and these provide more direct evidence of how businesses adapted their strategies. Twenty adverts of varying sizes, for example, were published in the Free Weekly issue commemorating the opening of the first off-street car parks in Marrickville (Anonymous, 1968b). The adverts show how the standard business strategy of marketing was adapted to capture value from the new accessibility features. Four examples (not to scale) are shown in Figure 4-4. The adverts all communicate the new convenience of car parking to customers – with most of the adverts referring to the location of their business relative to the free parking. Some businesses sought to differentiate themselves from the competition by use of imagery, special offers and advert size. It is not clear if the inclusion of transport information in these adverts was a new marketing strategy for these businesses, but none of the adverts refer to the proximity to public transport which did not change. Soon after the opening of the three car parks in Marrickville, the Council and businesses realised the location of car parking is important. The multi-deck Illawarra St car park did not attract patronage. It was not conveniently located and

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[28] The word 'dobber' is an Australian colloquialism to mean someone informing on another person. The act 'to dob in' is at odds with other cultural values such as 'people deserving a fair go' and the importance of taking a laid back view of life.

was difficult for shoppers to enter with trolleys[29]. The Council consequently shifted their policy focus to create car parking in locations that were convenient and not 'just available'.

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[29] Patronage continued to be a problem for the Illawarra St car park. As a result of unresolved concerns about safety and anti-social behaviour the Illawarra St car park was closed in the 1990s. It was eventually demolished in 2002 and rezoned for mixed commercial and residential development (Wotton, P. 2009 pers. comm., 31 July).

Table 4-6: Goal-orientated actions evident in the news coverage

Goal	Context	Barriers to Goal	Action
To attract customers to town centre	More people favour travelling by car to destinations	Inadequate parking	Businesses collectively approach Council to increase parking supply
To increase parking supply	Competition from shopping destinations that have car parking E.g. new regional shopping centres and town centres in or near Marrickville LGA.	Availability and cost of land	Businesses work with Council to find solution.
			Business Chambers contribute funding to parking projects.
			Business owners pay special levy on top of existing Council rates.
	Council want to widen the laneway behind businesses so parking can be added.		Businesses surrender the rear of their property to Council.
	Council's view of parking in terms of urgency, costs and areas of parking need are different to businesses.	Council support is not forthcoming	Businesses use media to generate pressure / support for their concerns.
			Businesses lobby Council – from outside and within e.g. Alderman Shanahan
To attract customers to business	Council opens new car parks	Customers may not know parking exists	Businesses promote the convenience of parking in their adverts.
		Customers may not have need to visit shop	Business promote special offers and discounts to customers.
	Competition with other businesses for customer attention	Customers may not be familiar with the town centre	Businesses provide instructions or visuals showing the business location relative to parking
	Customers prefer parking close to their destinations to reduce walking distance and carrying discomfort.	Parking is not conveniently located to business.	Businesses offer to deliver purchased goods direct to car if customers place order by phone.
			Businesses relocate their business to another location. (Note action reportedly taken by larger businesses not smaller independent businesses.)
	Parking exists but customers cannot find a parking spot.	Parking spaces are being occupied by the same cars throughout the day.	Businesses advocate for enforcement of time limits for parking to ensure customers benefit.
To protect business interests	Council wants to acquire property of business.	Pressure from Council, other businesses and/or media	Businesses resist.
			Businesses accept.
			Businesses argue for financial compensation

Figure 4-4: Examples of adverts produced for the opening of car parks in Marrickville (source: Free Weekly, 27 July 1968, (Anonymous, 1968b) image A and B are both one eighth page adverts located on pages 4 and 2 respectively, C and D both quarter page adverts on pages 6 and 7 respectively.)

4.2.4 Learning from the past

This historical case-study used the newspaper accounts to identify how businesses in a different era have responded to changes in customer motility and transport access in their town centre. Council and businesses shared a view that off-street car parking would help the town centres remain relevant and economically viable. Factors influencing this view were the growing level of preference amongst customers for car travel and the establishment of regional parking-enabled shopping centres that catered for this new demand. Marrickville, Dulwich Hill and Newtown all faced challenges which required businesses to adapt, innovate and in some cases accept trade-offs such as car parking levies and loss of land, to get and manage off-street car parking in their respective centres. Council too developed more competency and knowledge in response to the controversies and successes of planning, constructing, funding and managing the use of parking. Council became more selective about what projects they would support. This lessening of enthusiasm for more parking investments can be seen as the beginning of a shift of values that eventually led to current day LGA focus on sustainability.

The present day Marrickville Council no longer views sustainability in purely economic terms, and no longer advocates for increasing the supply of parking as the best strategy for town centres to remain competitive. Despite business opposition, the three Councils making up the study area in this research are proposing, and in some cases implementing, policies that reduce the supply of car parking. The next section focuses on focus group interviews conducted with local government staff of the three LGAs about how contemporary businesses in the study area have been adapting (or not) their business strategies to cope with the new policy environment.

4.3 Focus groups

To investigate the first research question in a current day setting, focus groups were held with local government staff familiar with concerns of businesses about the removal of car parking. The focus groups is the second method in this study that captures past information about businesses reactions. Collecting a local government perspective is consistent with this study's pragmatist research philosophy. Council staff are at the front-line when sustainable transport policies are implemented and the varying functions of Council means there are a variety of standpoints Council staff can have to observe business reactions.

There is a variety of specialist multidisciplinary Council staff involved when LGAs propose and implement sustainable transport projects in town centres under their jurisdiction. There are staff who assess the transport needs and who design and implement the infrastructure solutions; staff who work to support businesses and the economic development of the area; and staff focused on consultation and liaising between the community, Councillors and Council. Although each position contributes to the achievement of the Council's sustainability goals, they each have different strategic priorities – environmental, economic and social. So that this study could benefit from this diversity of perspectives, a range of staff were approached to participate in the focus groups.

This section begins by briefly reporting on the method used to structure the focus groups and how the observations collected from the focus groups were analysed. The results are then presented in two parts. The first part reports on discussion with the focus groups about how businesses' reactions to policy initiatives may alter based on the nature of the business goals and motivations of the business owner. The second part reports on resources and actions the focus group members had observed businesses take in response to initiatives changing the accessibility of the town centre. Special attention is given to those actions that tap into customer motility as a resource. The section concludes with a discussion about the implications of the focus group findings for the next stage of the research - the Town Centre Business Survey – and the refinements to the survey and the hypotheses.

4.3.1 Method

Focus groups are a flexible interview method whereby a group of participants are involved in a dialogue about a specific issue. Focus groups can be an effective method for analysing the

importance and sensitivity of people's expression of values, ideas and preferences in a group dynamic. They are also conducive for peer-to-peer knowledge sharing. In this study, the focus groups are used to collect and discuss examples of businesses' behaviour that may not otherwise be revealed in a survey or reported in the literature. Individuals employed in the following functions of Council were invited to participate in the focus groups: transport planning, transport projects, transport engineering, parking enforcement, business development, main street programs, business liaison and public relations. Participation in the focus group was endorsed by the organisation, but the ultimate decision to participate rested with the individual. A separate focus group was held with each Council.

The group dynamic within a focus group requires careful managing. The quality and diversity of perspectives can be compromised if individual participants dominate the conversation or participants feel pressure to conform to the group view. To help mitigate these risks a semi-structured agenda was prepared and used by the facilitator to guide the participants through the topic matter. Handouts were used at two stages to collect certain types of information systematically but also to help manage the discussion. Tangential topics were allowed to air when they were judged by the facilitator to benefit the research or the group.

A motive for conducting focus groups was to collect information that would aid in the construction of hypotheses about Regulatory Focused behaviour that were grounded in a current day context. Participants were instructed to reflect on a situation when car parking was being, or proposed to be, removed or changed to improve public transport, bike or pedestrian access in a town centre. Twelve statements aligned to Regulatory Focus concerns were presented to the focus group participants. Participants were asked to comment on the likelihood that the statements reflected businesses' concerns in such a situation. Two statements were presented at a time, one representing a Prevention Focused concern, the other a Promotion Focused concern. The statements related to the business goals of customer attraction, business competitiveness and town centre attractiveness as these were identified in the literature review as being of specific importance in matters about accessibility. Each goal was presented to participants in two choice sets – one choice set with two negatively framed statements, the other with two positively viewed statements about changes to access. Participants were not told that the statements aligned to a Prevention Focus or Promotion Focus perspective until the end of their respective focus group. The statements presented to participants are shown ahead of the reporting of their observations, in Section 4.3.2.

An audio-recording was made of each focus group interview and this was used to prepare an anonymous written record for further analysis. NVivo, a qualitative content analysis software program was used to code topics and themes discussed and its relevance to the research enquiry. The analysis phase synthesized the in-scope themes, observations and implications in relation to the research questions. The data from the handouts were tallied and analysed for recurring patterns.

Three two-hour focus group interviews were held, and a one-hour interview was conducted with a single participant who was funded and located at the Council but employed by the local business chamber. Separate interviews aimed to reduce Council staff discomfort in speaking plainly. In total 13 people participated and three people declined to participate. Six participants had positions involved in Council's function as an instigator of changes to town centre accessibility. The other seven (including the single participant) were involved in Council's function as assisting the community's adaptation to the change. In terms of positions within the Council, five participants were from the transport section working as engineers, planners or policymakers. Four participants were from the economic development sections of their Council working on Main St programs and business development. The remaining four participants were working in the community sections of their Council in business liaison roles and/or public relations. The following two sections present the focus group findings.

4.3.2 Observed and perceived goal concerns of business

The following observations from the focus group are organised by the three business goals identified in the literature as being most affected by changes in accessibility.

Customer Attraction (CA)

The statements presented to focus group participants about customer attraction are shown at Table 4-7.

Table 4-7: Regulatory Focused statements about Customer Attraction

Business Goal	Business views changes to access	Prevention Focused	Promotion Focused
Customer Attraction (CA)	(1) Negatively	(1A) Concern about loss of customers	(1B) Concern about not attracting new customers
	(2) Positively	(2A) Confident won't lose customers	(2B) Confident total customers won't go down

The focus group confirmed customer attraction was a principal concern for businesses. The two negative statements, (1A) and (1B), were identified as the most realistic based on participants' experience. No occasion could be recalled where a business was viewing the removal of car parking as positive despite a number of Sydney-based examples where pedestrianised streets had become highly valued retail locations. Even in town centres where there was a culture of walking, cycling and public transport use, businesses were not thought to welcome any removal of car parking. If a business did think it was positive, the focus group thought they were unlikely to say so to someone representing Council. It was thought that businesses would be more inclined to express neutral apathy about the changes rather than express their positive view.

When asked if they thought business owners' negative view of a change was because they worried about the loss of customers (1A) or because they would not attract new customers (1B) there was broad agreement it would be the former. There were a number of reasons given for thinking the Prevention Focus concern (1A) more relevant. Firstly, it was thought that the majority of business owners are aware that it is more effective to grow an existing customer's value than go looking for another customer. Secondly, as many smaller business owners do not market their business, it was thought that their focus would be on the customers they know exist. Thirdly, the focus groups noted business owners value the social interaction that comes with knowing regular customers. The focus groups suggested that the Promotion Focus concern (1B) was considered potentially more important only when the business required a flow of new customers. This was thought to be the case for new businesses and those near entertainment venues that attracted people from outside the area – for example restaurants located close to cinemas and theatres.

The positive viewpoint for Prevention (2A) and Promotion Focus (2B) was hard for the focus groups to imagine as the lack of car parking is frequently cited by business owners as a barrier to customer attraction.

> They will think losing the car parking will also lose the foot traffic. They won't be confident that they would be able to attract customers.

> The businesses think that they won't get any new customers. However, six months down the track when the parking meters are in, the new customers accept it.

While the participants made clear that it was extremely rare that a business saw access changes as positively affecting customer attraction, the focus group consensus was that most business owners are focused on existing customers (2A) rather than the total number of customers - new and old (2B).

> *Trying to explain to a business that while some customers may go, new customers would arrive is not easy, almost impossible. The average business owner focuses on what they know. That's all there is.*

When probed to describe the type of businesses that may view the change as harmless to their business, the focus group made subtle distinctions based on the model of business. Business owners who were confident in their business model were thought more likely to relate to statement (2A). Businesses who had confidence that their product or service was so distinctive or valued that existing customers would be unperturbed by changes to access and would find a new means to travel to the business. Similarly, statement (2B) was thought to be true for businesses that were confident their location would continue to attract an equal or higher flow of customers. For example, businesses located close to medical services, education facilities, or large supermarkets whose pulling power were unlikely to change. Even if business owners in such resilient locations thought the access changes would put off some of their regular customers, the focus group perceived these businesses would regard the loss compensated by the attraction of new customers.

Business Competitiveness (BC)

The statements presented to focus group participants about business competitiveness are shown at Table 4-8.

Table 4-8: Regulatory Focused statements about Business Competitiveness

Business Goal	Business views changes to access	Prevention Focused	Promotion Focused
Business Competitiveness (BC)	**(3)** Negatively	**(3A)** Concern about fighting off competition	**(3B)** Concern about not gaining competitive advantage
	(4) Positively	**(4A)** Confident won't be vulnerable to competitors	**(4B)** Confident will gain competitive advantage

The discussion about business competitiveness was centred on the business' perspective about competition and the way this would be influenced by contextual factors such as size,

business attitude, business mix and layout in town centres. Business owners located in a small town centres were generally expected to view the threat of competition as coming from other nearby town centres rather than from other businesses within their own cluster – unless there was a business directly competing with them. Environmental and spatial factors could also affect business perceptions about competition, with barriers to connectivity such as train lines, busy roads and long walking distances effectively splitting a large town centre into competing parts. One participant noted that businesses were aware customers' are unwilling to walk far from their parking, which meant businesses competed one-to-one with nearby businesses, but competed as a cluster with other parts of the town centre.

As with the negative statements for CA, the negative statements for business competitiveness were the ones the focus groups perceived as being most realistic. The focus groups asserted that the majority of small business owners encountered were resistant to any change to the status quo.

> *There is also a group of business owners who just do not like changes. Even if it might help them.*

> *I think the older businesses that were set up a long time ago, have not evolved to operate their business in a contemporary environment. They still say "It is not how it used to be". That's right it is not. And they need to learn how to do business in today's environment.*

The focus group did not think concern about fighting off competition (3A) was a concern for most businesses because it implied that owners were thinking of the longer-term impacts and actively applied strategies to remain competitive – something the focus groups believed most small businesses owners did not do.

> *Most are so involved in the day-to-day running they don't have time for thinking strategically about the direction of their business.*

> *Some businesses assume opening the shop is enough to create a business, as though they don't need anything else.*

> *They all know in theory they have to compete to win the passing trade. If there are ten people passing by, a business owner should be thinking how their business is going to compete and get as many of those people over the threshold into their café. And once they have them, how are they going to get them to come back again. A smart business would be operating in that way. I am not sure all businesses do.*

The focus groups typified this majority group of business owners as being more likely to externalise problems rather than taking responsibility. This meant, rationalised the focus groups, that if (3A) or (3B) was a concern for businesses they would be likely to feel powerless or unmotivated to avoid the effects. The focus groups noted this tendency made the Council's task of implementing transport access changes more difficult as business perceptions of 'the problem' and 'the solution' were different from that of the Council's.

> *If customers don't turn up it has to be someone else's fault. They always look around for something external to blame, like Council or the parking, it is never something internal that is responsible for the bad results.*

> *Business owners take some terrible personal financial risk. Then we rip out the one thing that they think is sustaining the business, a car park. It is so easy to see the car park as the physical thing that makes their business. They are not thinking of any of the nuances.*

It was also considered unlikely that businesses were concerned about not gaining competitive advantages (3B) from the added transport access. The focus groups believed most business owners would be concentrating on the loss of parking.

> *They do get together and tend to share their view on the loss of parking. But it is unlikely the focus of their criticism is how one business is gaining competitive advantage over the others, or the reverse.*

There were exceptions to the norm. The focus group identified a distinct but small group of 'business savvy' owners who were skilled, strategic and adapted easily to new circumstances to remain competitive. They were described as astute business owners who looked for and captured strategic business opportunities. More than one focus group participant described these business savvy owners as 'working on the business not in it'. The participants felt the business savvy understood that longer-term impacts could be both positive and negative for business competitiveness and consequently may be more pro-active in gaining a positive outcome. These businesses were more likely to focus on gaining a competitive advantage (4B) in expectation that the new transport connectivity options may shake-up the town centre competition, than fighting off any new competition (3A). As with the negative CA statements (2A and 2B), only those confident in their business model (and possibly their capacity to adapt) were thought to be confident of not becoming vulnerable to competitors (4A).

There were only a few examples given of businesses tapping into new competitive advantages (4B) of new transport access. When a bike lane was added to a street two business savvy owners reorientated their business to attract the cycling market – one through marketing their business as a bike ride stop, another by selling bikes. In most cases, however it was the task of Council to highlight the potential for competitive advantages from changes to transport access – but this took time. Businesses needed convincing about the benefits of making changes to the street that reduced car parking.

> *When it comes to running events that require closing the street, you also get the complaints, "it will impact my business". I say, "no it won't. It will free up the street. People will see your business who have never seen it before".*

> *So when you want to close a parking lane for a wider pedestrian lane and they say "oh but the car parking", I point out that that could be two cars parked outside, one of them owned by the guy next door yet. Compare that to 3,000 people walking past the shop.*

The focus group noted they were cautious about overstating the benefits of a transport access change to business owners, as the change alone would not guarantee an increase in customers. For example when half the customer base are known to travel by car, it is difficult to convince business owners that extending the length of an existing bus stop would attract more business than the two parking spaces lost. Likewise, the presence of a new bike corridor may move more cyclists past the business rather than entice them in. It was felt therefore that business owners needed to be proactively finding ways of generating value from the new transport infrastructure – but from the focus groups' experience, most business owners in local centres were not proactive.

Town Centre Attractiveness (TCA)

The statements presented to focus group participants about town centre attractiveness are shown at Table 4-9.

Table 4-9: Regulatory Focused statements about Town Centre Attractiveness

Business Goal	Business views changes to access	Prevention Focused	Promotion Focused
Town Centre Attractiveness (TCA)	**(5)** Negatively	**(5A)** Concern a lot of businesses won't survive	**(5B)** Concern less able to attract investment
	(6) Positively	**(6A)** Confident won't be less attractive to customers	**(6B)** Confident will become more vibrant

The focus groups described town centre attractiveness as an indirect business goal. Business competitiveness and customer attraction influenced the attractiveness of a town centre, but they rationalised, much of the town centre's physical attractiveness is outside the control of individual businesses. While businesses could work collaboratively through their Business Chamber to create a brand for a centre, Council had the funds to make the physical changes.

In the opinion of the focus groups, when businesses viewed changes to the attractiveness of the town centre as negatively impacting their business goals it was related to issues about customer attraction, and not business investment. Therefore the statement about the numbers of businesses closing down (5A) was viewed as more likely to reflect business concerns than the statement (5B).

> *They will see it as driving people out of town and as the empty shops pop up they will fear they are on that downward spiral.*

> *Businesses do not serve bollards, or pavers, they serve people. So if the people are not there, then it doesn't matter how fancy the main street looks.*

Whilst the focus groups felt that businesses understood that a town centre with empty shops was bad for their business it was thought few businesses understood that a strong cluster was good for their business. The statement that the town centre would be less able to attract investment (5B) was therefore not considered a focus of concern for the majority of smaller businesses in town centres within the study area.

> *Some do not understand clustering can help attract customers, it not just competition. From a customer perspective, a cluster is more attractive and less risky.*

> *Businesses need to feed off each other. It helps the vibrancy.*

The focus groups all spoke of town centres as distinctive places, shaped by the attitude of business owners, public amenity and strategic economic importance. The participants knew of cases where the businesses within a town centre were confident that the existing attractiveness of the town centre could withstand changes to car parking and still attract customers (6A). In such cases, this was coupled with savvy business owners working collaboratively to market the town centre.

Both (town centres) have incredible amounts of traffic but they have completely different characters – one pleasant one horrible. If you could somehow track the quality and renewal of businesses between the two centres...

There are lots of dynamic, modern businesses attracting new customers, they are responding to the market demands.

If businesses were concerned about the vibrancy of a town centre, the focus groups thought the transport access changes may be seen as positive (6B) – even if it reduced parking. There were some instances where this had happened, but it was helped by the advocacy of other businesses.

The Chamber did a really good sales job about having to dress up the area and make the road more lively. The Chamber and the businesses were supportive so the dining bays were put in.

4.3.3 Implications for framing business concerns by Regulatory Focus

The focus group participants believed that changes in the accessibility of a street were generally unwelcomed by businesses with negative statements about CA, BC and TCA being more representative of business concerns but not always for the same reasons. The focus group referenced differences in business skill, competence and attitude to explain these differences – which resulted in a consensus view that the majority of owners were low functioning and resistant to change, and a minority were 'business savvy' and adaptable. Any examples of business behaviour aligning to positive statements about CA, BC and TCA were quickly explained as examples of the savvy or astute business owner – the exception rather than the rule.

Table 4-10 summarizes the expectations of the focus group about the statements, and the moderating factors. The focus groups suggested more moderating factors for CA then BC or TCA. The focus groups were sensitive to the fact that businesses have different customer attraction potential, and some of this potential was thought to be limited by location and business type. Many of the moderating factors reflected approaches to business, which centred on the focus groups' perceptions of good and bad business attitudes and what constituted a pro-active use of resources and strategies.

Table 4-10: Business concerns about goals affected by transport access change, as perceived by Focus Group

	Most likely	Sometimes	Rarely	Moderating Factors
Customer Attraction (CA)				
Negative viewpoint	(1A) Prevention	(1B) Promotion		Business size, marketing, business age, business type, location of business
Positive viewpoint			(2A) and (2B)	
Business Competitiveness (BC)				
Negative viewpoint		(3A) Prevention	(3B) Promotion	Business size, business attitude
Positive viewpoint		(4B) Promotion	(4A) Prevention	
Town Centre Attractiveness (TCA)				
Negative viewpoint	(5A) Prevention		(5B) Promotion	Business attitude, business chamber
Positive viewpoint		(6A) and (6B)		

Although the focus group participants were unaware the choice sets for each business goal were structured around RFT, their expectations about the specific nature of goal concern showed some alignment. The alignment to RFT was most evident in the focus groups' expectations about the concerns (negative viewpoints). All the Prevention Focus statements (1A, 3A and 5A) were viewed as more likely to be true than the corresponding Promotion Focus statements (1B, 3B and 5B). The positive viewpoints were less consistent in how they varied. With respect to business concerns about CA and TCA, the focus groups did not think the Prevention Focus statements were any more or less accurate to the Promotion Focus statements. Both CA statements (2A and 2B) were thought to be rarely true. Both TCA statements (6A and 6B) were rated as only sometimes true. The focus groups did make a distinction between business views about BC with the Promotion Focus statement (4B) being viewed as more likely than Prevention Focus (4A).

Participants in the focus groups were keen to stress that each town centre had sophisticated and struggling business owners and they could be from a variety of backgrounds and business types. Nevertheless, there was agreement amongst participants that the best generalisation for businesses with the lowest business acumen, skills and resources were smaller businesses operating as sole traders. Local town centres have a large number of these smaller businesses. The alignment therefore between focus group perceptions and the RFT model could be explained by the expectation that only a minority of businesses in local town centres were business savvy. The entrepreneurial behaviour of the business savvy is consistent with a

Promotion Focus concern about opportunity-seeking. The Prevention Focus concerns about safety and security also correspond with the focus groups' expectations that sole traders would be strongly negative about changes that they perceived threatened their livelihood. A second, and not unrelated issue, is that Council staff are exposed more to the complaints of businesses rather than what motivates or pleases business.

These Local Government Focus Group interviews were conducted to collect new information in the field that is currently not available in the transport policy literature. Although there are limits to how well a local government perspective matches or understands that of a business perspective, the insights from the first-hand experiences of Council staff does help to assess how Regulatory Focused goal concerns applies in a 'real life' setting. The next section focuses on the 'nuts and bolts' of business reactions, as observed by the focus group, which is used to help design the experimental survey.

4.3.4 Observed business reactions – actions and resources

The focus groups were asked to comment on the actions businesses had been observed to take when transport access is changed. A list of actions constructed from those identified in the literature and in the historical case-study were presented to participants. These are shown in Table 4-11 grouped by the frequency they were reported to be observed.

Table 4-11: Actions adopted by businesses when transport access changes

Commonly observed actions	Sometimes observed	Rarely observed
Complain to Council Lobby for more parking Seek compensation from Council Using space outside business* No action	Increase advertising Offer delivery service* Move business to new location Establish customer rewards program Request bike parking outside shop* Negotiating special parking deal for customers Target public transport passengers or cyclists*	Change business hours Change staffing levels Creating own parking for customers

* actions using new accessibility

Three of the most commonly observed actions were related to businesses opposing the change to the street space, the other actions being less antagonistic demonstrations of business power. Using the new space outside the business is in line with policy intentions whilst businesses taking no action, may not be helpful but was not viewed as necessarily

damaging to the policy initiative. The focus group participants placed actions that used the new transport accessibility features more often in the 'sometimes observed' column. Participants however explained that these progressive actions were most likely to be taken by the savvy business owners, which in turn meant they would only be taken by a minority of businesses. Threats to move the business sometimes occurred, but data was not systematically collected to enable the Council officers to verify if a business did relocate or if it folded.

Although businesses were likely to be anxious about impending change the focus groups did not think this would increase their sense of urgency to take action. It was the view of the focus groups that early action could help businesses to prepare and establish a stronger competitive advantage as well as give time for new strategies to reap benefits. Unfortunately, efforts by Council and the Business Chamber to help businesses cope with change were not always taken up by the businesses that were perceived to need it most. Low take up was attributed to the required investment of time, which many owners did not have enough of. Instead the focus group perceived business owners were taking actions that relied on out-dated knowledge and skills that were not appropriate for the new environment.

To help improve the realism of the Town Centre Business Survey the focus groups were asked about the resources that business owners may mobilise when taking action to protect or attain a goal. Table 4-12 shows the list of resources that were presented to the focus groups.[30] The resource are grouped in resource categories consistent with those used by Avelino and Rotmans (2009).

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[30] Participants indicated which resources they thought a business would use to protect their business or create opportunities for their business when confronted with the removal of parking. The ratings of high, medium and low are a measure of likelihood, based on data collected from participants in two focus groups.

Table 4-12: Rating of resources used to protect or create opportunities

Resource category	Business resources	Goal	
		To protect	**To create opportunities**
Human resources	Number of people	Moderate	Moderate
	Skills within the business	Low	Moderate
	Staff hours	Moderate	Moderate
	Influence of the business	Low	Moderate
	Social connections	Low	High
	Connection with customers	Moderate	High
Monetary resources	Money in bank	Moderate	Low
	Borrowing power	Low	Moderate
	Floor space	Moderate	Moderate
	Private car parking	High	Low
	Ownership of premises	Low	Low
	Customer numbers	Low	High
Mental resources	Customer database	Low	High
	Marketing materials	Moderate	High
	Business reputation	High	Moderate
	Owner's innovativeness	Low	High
	Environmental awareness	Low	Moderate
	Business astuteness	Moderate	High
Natural resources	Look of town centre	High	Moderate
	Ambience of town centre	High	Moderate
	Popularity of town centre	High	Moderate
	Fresh air	Moderate	Moderate
	Nearby public transport	Moderate	Moderate
	Walkable streets	High	Moderate
	Safe and easy to cycle	Moderate	High
	Population density	Moderate	High

The focus group participants had different expectations about the actions that would be taken by businesses to fulfil the two Regulatory Focused themed goals. When businesses wanted to create opportunities for their business the focus groups thought that businesses would be drawing upon many types of resources. The only resources viewed as having a low likelihood of being used were monetary resources. This is consistent with the RFT model which identifies Promotion Focus preference for eager strategies, that is, choosing many actions to increase the chances of choosing the correct action.

When businesses wanted to protect their business the focus group thought that there would be some resources that businesses would be highly likely to use. These included the natural

resources of the town centre, car parking and their business reputation. A number of resources that were viewed as highly likely for the Promotion Focused goal were rated as having a low likelihood of use for the Prevention Focused goal of protecting their business. These include; social connections a human resource; high customer numbers a monetary resource; and customer databases and owner's innovativeness categorised as mental resources. These expectations for different resource use are consistent with the focus groups' differentiation of businesses by business acumen.

Table 4-13 shows a revised list of business actions which are used in the Regulatory Focused goal-task scenarios of the Town Centre Business Survey. Unlike the actions presented in Table 4-12, the actions using motility resources are not limited to natural resources, but can mobilise human, monetary and mental resources. This means actions such as the creation of marketing materials can be differentiated by the type of customer motility they encourage: the availability of parking to support car mobility or the availability of new transport options. Secondly, the actions were compiled with a focus on the different Regulatory Focus concerns a business may have about Customer Attraction and Business Competitiveness. That is, actions business may take to attract customers when new access options are added and actions a business may take to maintain their business competitiveness despite the loss of car parking.

Table 4-13: Action list coded by power framework

Action	Resource Type	Access Resource	Power Dynamic
Improve customer service	Human	No	Neutral
Organise special events for regular customers	Human	No	Neutral
Reward customers for word-of-mouth	Human	No	Neutral
Complain to council about loss of parking	Human	Parking	Antagonistic
Offer discounts and special offers	Monetary	No	Neutral
Refund parking costs when customers spend over a set amount	Monetary	Parking	Antagonistic
Offer a delivery service to customers	Monetary	Delivery	Synergetic
Create new advertising material that shows where to find parking	Monetary	Parking	Antagonistic
Ask customers what they like	Mental	No	Neutral
Promote public transport options	Mental	Public transport	Synergetic
Adapt business strategies to make better use of new transport options	Mental	Any sustainable transport mode	Synergetic
Target advertising along public transport route	Mental	Public transport	Synergetic
Provide customers with information about good places to park	Mental	Parking	Antagonistic
Highlight the added convenience of new transport options to customers	Mental	Any sustainable transport mode	Synergetic
Provide customer seating outside shop	Natural	Space	Synergetic
Create customer parking by converting space normally used for storage or staff parking	Natural	Parking	Antagonistic
Market through window display	Natural	Walking	Neutral
Ask Council for bike parking	Natural	Bike	Synergetic

4.4 Conclusion

Sustainability is a policy objective that has gained traction amongst local Councils across Australia. In present day Sydney, new sustainable transport policies such as charging for car parking and promoting more public transport use are beginning to be implemented by Councils. On-street car parking is temporarily, and sometimes permanently, removed to improve traffic flow for buses, cars, but also bikes and pedestrians. Such changes to car parking however remain contentious, particularly amongst business owners in the affected locale. This chapter introduced the three Councils of the inner Sydney area of focus in this study which are independently implementing policies in their town centres to encourage a reduction of car use.

To help establish how 'real life' experience relates to the hypothesis of RFT goal-orientated behaviour, this chapter collected evidence using two methods. The first was a historical study about the creation of off-street car parking in three town centres of Marrickville LGA. The case-study helps to highlight how knowledge developed about the planning, funding and implementing off-street car parking projects and that the experiences were quite different for different town centres. Although the commitment of policymakers and businesses to create more off-street car parking was initially strongly aligned, it later began to diverge. The conflicts in opinion, played out in the local media coverage, highlighted how policy goals and business goals can be focused on different goal outcomes and as a result elicit different strategic actions.

The focus groups were an opportunity to hear how contemporary business owners have reacted to proposed and implemented changes to transport access in town centres of the study area. The 'real life' insights and observations from the focus group participants had some limitations. Namely the focus group participants had low expectations that businesses would take pro-active adaptive action to cope with a change in the accessibility of the street space. Participants had greater exposure to business negativity, on account of them being representatives of the LGA instigating the sustainable transport access changes that businesses viewed as a threat to their livelihoods. Despite this, the focus group feedback provided a basis for refining the variety of actions and motivating concerns that could help make the Town Centre Business Survey more salient. The next chapter reports how these findings are incorporated into the design and hypotheses of the Town Centre Business Survey.

Chapter 5   The Town Centre Business Survey[31]

To test if Regulatory Focus has transport policy relevance, data were collected from business owners and managers of shop-based businesses using an online survey administered in person using a mobile computing device. As with the psychological-based literature on Regulatory Focus, the survey was designed as an experiment so that behaviour under different treatments could be compared. An online survey, unlike a lab experiment or paper-based survey, allowed respondents to be quickly and easily directed to different scenarios, either randomly or based on their prior responses. While the research objectives were driving the decision to collect survey responses through an online survey, considerations such as resource efficiency, response rates and data quality were important in determining other aspects of the survey methodology like sampling, recruitment, instrument design and collecting the responses in person.

This chapter presents the methodology for the Town Centre Business Survey and an evaluation of its effectiveness. It begins with the structure of the experimental design, followed by decisions on sampling frames, recruitment and instrument design. A review of methods used in other surveys of shop owners about transport matters, helped to ascertain how decisions may survey response rates and data quality. The second part of the chapter focused on the analysis of the survey methodology in two parts. First, attention is given to the evaluation of recruitment, and the representativeness of respondents. The second part assesses the survey and instrument design. This involves statistical analysis to check the reliability and validity of the tool used to measure Regulatory Focus.

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[31] The methods used for the Town Centre Business Survey are partially published in Moutou *et al.* (2011).

5.1.1 The experimental survey design

The survey collects data to allow the testing of hypotheses about how Regulatory Focus may influence business goal-orientated decision-making under different conditions. The survey begins by collecting two baseline measures that are used as independent variables: the respondents choice of a business goal of current importance, and their endorsement of Regulatory Focus strategies. The survey then proceeds to the experimental component of the survey, where information is presented to businesses and their responses captured. The final section of the survey collects data on extraneous independent variables. The survey sequence is illustrated in Figure 5-1.

Figure 5-1: The structure of the Town Centre Business Survey (Source: this research)
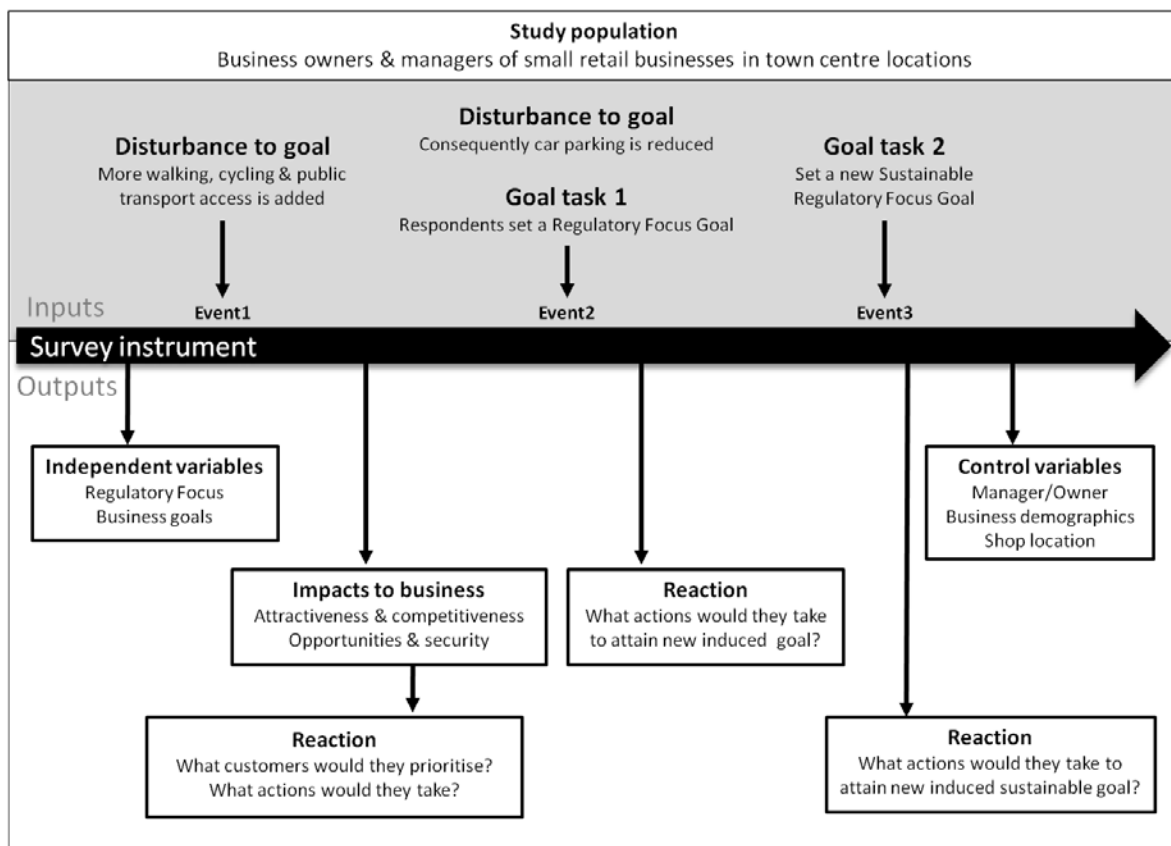
The RFSS is used to determine respondent's baseline preference for Regulatory Focus strategies for business goal attainment. Survey participants completed the 14-item Regulatory Focus Strategies Scale designed by Ouschan *et al.* (2007). This questionnaire assesses participant's preference for use of vigilant and eager strategies on an orthogonal scale consisting of six Prevention Focused items (e.g., "To achieve something, one must be cautious.") and eight Promotion Focus items (e.g., "To achieve something, one must try all

possible ways of achieving it."). Each item is rated on a 5-point Likert scale from s*trongly disagree* (1) to s*trongly agree* (5), with the middle point indicating *neither agree nor disagree*. The Prevention Focus strategy endorsement (PVFoc) and the other Promotion Focus strategy endorsement (PMFoc) are calculated from the average score of associated items.

Table 5-1: The RFSS items used to measure endorsement of Promotion and Prevention Focus

Item	Item Statement	Regulatory Focus
RFSS1	Being cautious is the best way to avoid failure.	Prevention
RFSS2	If you keep worrying about mistakes, you will never achieve anything.	Promotion
RFSS3	To avoid failure, one has to be careful.	Prevention
RFSS5	To achieve something, you need to be optimistic.	Promotion
RFSS6	You have to take risks if you want to avoid failing.	Promotion
RFSS7	To achieve something, it is most important to know all the potential obstacles.	Prevention
RFSS9	To achieve something, one must be cautious.	Prevention
RFSS10	To avoid failure, you have to be enthusiastic.	Promotion
RFSS11	Taking risks is essential for success.	Promotion
RFSS12	If you want to avoid failing, the worst thing you can do is to think about making mistakes.	Promotion
RFSS13	To achieve something, one must try all possible ways of achieving it.	Promotion
RFSS14	The worst thing you can do when trying to achieve a goal is to worry about making mistakes.	Promotion
RFSS15	Being cautious is the best policy for success.	Prevention
RFSS16	To avoid failure, it is important to keep in mind all the potential obstacles that might get in your way.	Prevention

The PMFoc and PVFoc scores are integrated into the experimental component of the survey which aims to understand how business individuals respond and adapt to changes in the accessibility of the street outside their business. Specifically, the survey captures changes in the Regulatory Focused goal-orientated behaviour of business owners and managers under the following conditions:

- business accessibility (*BizAccess*) changes,
- business goals (*BizGoal*) change,
- customers' use of accessibility (*MotilityValue*) changes.

These three conditions are presented to businesses respondents as three hypothetical events (marked as survey inputs in Figure 5-1). Event1, additional accessibility is added to their street to increase the potential use of public transport, cycling and walking amongst customers. Event2, car parking is removed thereby reducing the potential of customers using a car. Event3, businesses are informed of changes in customers' value. Survey outputs include exogenous independent variables that are used to control for ownership status, business demographics and the location of the business.

Feedback from the local government focus groups on question design, the presentation of the research topic and hypothetical scenarios was incorporated in the development of the survey tool. Local government staff confirmed that changes to parking was a salient topic for business owners and managers, but it generally elicited high emotions such as worry, suspicion or anger directed towards the local Council. As such negative responses were likely to reduce willingness to participate in the survey a decision was taken to describe the research purpose as 'understanding how businesses adapt when customers travel differently' rather than 'understanding how businesses adapt when car parking is removed'. In addition the hypothetical scenario was presented incrementally to business owners and managers as this helped 'soften' the news but also allowed reactions to component parts of the scenario be observed separately. Therefore, as illustrated in Figure 5-1, survey respondents were asked about the introduction of new transport options (Event 1) before they were presented with the removal of car parking scenario (Event 2).

At the end of the survey, information was collected about the respondent and their business. This included questions about their individual characteristics such as position and length of time in business, information about the business characteristics as number of employees, number of stores and financial health. Placing such questions at the end of the survey has been found to reduce the tendency of respondents to abandon the survey, even when they consider the questions intrusive (Stopher, 2011). To reduce respondent burden and shorten survey completion time, information about gender, age bracket and business type were excluded from the survey but input into an online survey immediately after leaving the business. This information was used to construct a number of explanatory variables (see Table 5-2) that would aid the analysis of business reactions.

Table 5-2: Explanatory variables used in the analysis of business survey responses

Variable Name	Variable description
TimeWorkOwn	the number of years the individual has owned or worked in the business;
OwnerMgr	Binary variable, where 1 indicates respondent's position in the business is the 'Owner', and 0 indicates 'Manager'
IndivGender	where 'Male'=1 and 'Female'=0
IndivAge	where two dummy variables (0,1) are used to differentiate between in one of three age groups: *Age30or less* where 1 means 'respondent aged 30 years or less' *Age30to50* where 1 means 'respondent aged 31 to 50 years' A zero value on all indicating a 'respondent aged 51 or over'.
BizType	Three categories of business type, where 'Food stores and health' =1, 'Food Service' = 2, and 'Fashion' =3.
BizSize	the business size category as a function of the number of employees. Three dummy variables (0,1) are used to differentiate between: *Staff Zero* where 1 means 'No employees' *Staff Micro* where 1 means '1 - 4 people' *StaffSmall* where 1 means '5-19 people' A zero value on all indicating a business with '20 or more people'
BizAge	age of the business in years
Stores	number of stores operated by the business
Family	Binary variable, where 1 indicates a 'Family business'
Franchise	Binary variable, where 1 indicates a 'Franchise business' = 1
FinancialCentred	as an average rating of financial well-being compared to last month, a year ago, and before the Global Financial Crisis in 2008.
English	Binary variable, where 1 indicates English was learnt as a second language.
LGA	The study area in which the town centre was located, categorised as LGA. Binary variable, *LGASydney* where 1 means 'City of Sydney' Binary variable, *LGALeich* where 1 means 'Leichhardt Council' A zero value on both binary variables indicates a town centre located in Marrickville Council.
BizGoalBinary	A binary variable indicating the current strategic goal of the business, where: 1 means 'to grow the business', a Promotion Focused goal 0 means 'to strengthen the business', a Prevention Focused goal
BizKnowledge	Group of binary variables indicating types of knowledge business had of their customers. *Knowledge_1* where 1 means 'know some customers by name' *Knowledge_2* where 1 means 'know how they travel to the town centre' *Knowledge_3* where 1 means 'know other businesses they are likely to shop at' *Knowledge_4* where 1 means 'know what they like about my business' *Knowledge_5* where 1 means 'know how to contact them' *Knowledge_6* where 1 means 'know where they travel from'

5.1.2 Measures of perception of impact

Six attitudinal items were constructed to measure how businesses perceived additional sustainable mobility access was going to affect their business's customer attraction (CA), business competiveness (BC) and town centre attractiveness (TCA). Regulatory Focus was used to differentiate the potential underlying goal concerns (previously presented in Table 3-5). Three items were therefore focused on Promotion Focused opportunity concerns and the others on Prevention Focused security concerns. Based on guidance from the Local Government Focus Groups, all items were positively framed, so as to avoid creating an expectation of a negative response. The item questions are presented in Table 5-3 with alignment to the business goal concerns (Model 1) or Regulatory Focused goal concerns (Model 2). Agreement with the question was measured on a five-point Likert scale where (-2 = definitely not, -1 = probably not, 0 = maybe, 1 = probably yes, 2 = definitely yes).

Table 5-3: Items used to measure business perception of impacts

		Model 1	Model 2
Variable Name	**Item Question**	**Business Goal Concerns**	**Regulatory Focused Goal Concerns**
Customers1	Would the change help you attract more new customers?	Customer Attraction (CA)	Promotion
Customers2	Would your regular customers be happy about the change?		Prevention
BizComp1	Would the change give your business new competitive advantages?	Business Competiveness (BC)	Promotion
BizComp2[32]	Would the change attract new business competitors to your street?		Prevention
Town1	Would the town centre's atmosphere be more vibrant and busy?	Town Centre Attractiveness (TCA)	Promotion
Town2	Would the change make the town centre a more appealing place to shop?		Prevention

The six items were subsequently transformed into five continuous variables with values ranging from -1 to 1, where a value of zero indicated a neutral position. The three continuous variables making up Model 1 measure perception of impact as positive or negative in relation to CA, BC and TCA (see Table 5-4).

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[32] A reversed version of variable BizComp2 was constructed, called BizComp2R as 'definitely yes' could be interpreted as being a negative impact and negative effect on business security.

In conjunction with measures of Town Centre Motility (TCBarriers and TCOpportunity), the three business goal concerns are used to assess if the place characteristics of different town centres influence business expectations (see Section 3.2.3 for details including the construction of the measure). The Town Centre Motility measures are used to split the sample by the mean so that differences in the mean of CA, BC and TCA amongst the four groups can be tested against the research expectations, previously presented in Table 3-2. Results of these tests are reported in Section 6.2.1. Reports of differences in sentiment by different explanatory factors such as business type, age, gender are reported in Appendix 5.

Table 5-4: Description of a continuous scale to measure CA, BC and TCA

Variable Name	Variable purpose	Variable interpretation
Customer Attraction (CA)	Measures goal concerns about customer attraction.	Where 1 means expectation of positive impact on customer attraction arising from added mobility options. Where 0 means no expectation of impact. Where -1 indicates expectation of negative impact on customer attraction.
Business Competiveness (BC)	Measures goal concerns about business competitiveness.	Where 1 means expectation of positive impact on business competitiveness arising from added mobility options. Where 0 means no expectation of impact. Where -1 indicates expectation of negative impact on business competitiveness.
Town Centre Attractiveness (TCA)	Measures goal concerns about town centre attractiveness.	Where 1 means expectation of positive impact on town centre attractiveness arising from added mobility options. Where 0 means no expectation of impact. Where -1 indicates expectation of negative impact on town centre attractiveness.

Note: The item BizComp2 is recoded as BizComp2R so that the meaningfulness of the scale is comparable.

The two continuous variables making up Model 2 are designed to measure business' concerns about how business goal opportunities and goal security could be affected by the changes in transport access. Both PMOpportunityConcerns and PVSecurityConcerns are continuous scales of -1 to 1, constructed from the average of scores on variables categorised as Promotion or Prevention in Table 5-3. The interpretation of the scale is shown in Table 5-5.

Table 5-5: The continuous scale variables to measure Regulatory Focused business concerns

Variable Name	Variable purpose	Variable interpretation
PMOpportunityConcerns	Measures Promotion Focus Concerns about goal opportunities.	Where 1 means increased business opportunities expected to arise from added mobility options. Where 0 means no perceived impact on business opportunities. Where -1 indicates expectation that added mobility will reduce business opportunities.
PVSecurityConcerns	Measures Prevention Focus Concerns about goal security.	Where 1 means increased business security anticipated to arise from added mobility options. Where 0 means no perceived impact on business security. Where -1 indicates expectation that added mobility will reduce business security.

Note: The item BizComp2 is recoded as BizComp2R so that the meaningfulness of the scale is comparable.

5.1.3 Incorporation and analysis of Regulatory Fit

Respondents were categorised as having good or poor Regulatory Fit on the two dimensions of the RFSS (*PMFoc* and *PVFoc*). A respondent was defined as having a good fit when the Regulatory Focus of a goal need for action corresponded to a score above 3 for that Regulatory Focus, as 3 equates to the respondent consistently choosing 'neither agree or disagree' for all relevant RFSS items. For example, respondents who chose a Prevention Focused goal (*BizGoal$_{PV}$* = 'to strengthen the business') and scored above 3 for preference for vigilant strategies (*PVFoc*) were categorised as having a Good Prevention Focus Fit. The respondent could simultaneously have scored above 3 on the Promotion Focus scale, however as they could not also choose the Promotion Focus goal (*BizGoal$_{PM}$* = 'to grow the business') they were classified as having a Poor Promotion Focus Fit (see Table 5-6).

Table 5-6: Rules used for categorising Regulatory Fit

	Score on Regulatory Focus scale	
Regulatory Focus of goal task	**Score above 3**	**Score 3 or below**
Goal task matches Regulatory Focus scale	Good Fit	Poor Fit
Goal task does not match Regulatory Focus scale	Poor Fit	Poor Fit

Each respondent is assessed for Regulatory Fit against the two dimensions of Regulatory Focus in each event, thereby enabling the data to be statistically analysed as a repeated

measures experiment.[33] Regulatory Fit was taken into account in the analysis of respondent's choices in each decision-making stage as represented by Events 1, 2 and 3. In the analysis of Event 1 choices, the business goal (*BizGoal*) is assumed to be the strategic basis underlying the respondent's assessment of business impacts and choice of actions to attract customers when new mobility is added. In Event 2 respondents were randomly allocated a motivating goal task and asked to choose actions that either 'could help' the business survive (Promotion Focus) or 'ought to avoid' the business failing (Prevention Focus). These are again assessed against the respondents Regulatory Focus scores (*PMFoc* and *PVFoc*) to categorise their Regulatory Fit. Respondents' assignment to one of two Event 3 scenarios is random. Each scenario requires respondents to choose actions consistent with a Regulatory Focused induced task – choosing actions that would help their business become environmentally friendly (Promotion Focus) or choosing actions that ought to protect their business from rising petrol costs (Prevention Focus). Six categorical dummy variables were constructed to allocate respondents to groups of Promotion Focus Fit and Prevention Focus Fit for the three events. The variable names are shown in Table 5-7. Good Fit is coded as 1, Poor Fit as zero.

Table 5-7: Variable names used to define the sample by Regulatory Fit in each event

	Promotion Focus Fit		Prevention Focus Fit	
Town Centre Business Survey	**Good**	**Poor**	**Good**	**Poor**
Event 1	E1PMGoodPoorFit		E1PVGoodPoorFit	
Event 2	E2PMGoodPoorFit		E2PVGoodPoorFit	
Event 3	E3PMGoodPoorFit		E3PVGoodPoorFit	

5.1.4 Event 1, addition of sustainable transport options

In the first event, businesses are asked to respond to the addition of sustainable transport options. Figure 5-2 shows the four screens used in the presentation of the hypothetical scenario. The illustration of a thought cloud was used to ensure respondents realised it was a hypothetical proposal, and therefore aimed at reducing anxiety, suspicion or aggression amongst respondents. The plain English was used to make it more accessible for respondents

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[33]   Information about the preferred Regulatory Focus of participants was not used to form the groups as it was inconsistent with the theory of Regulatory Focus and would not comply to a repeated measures design. The 2 x 2 repeated measures design is preferred as the sample is split into two independent groups based on goal choice, which is a more efficient use of a small sample size and in keeping with RFT.

from a non-English speaking background. The scenario purposefully focused on presenting the attribute of the accessibility changes in relation to the businesses' customers.

Figure 5-2: The sequence of screens used for Event 1 scenario: New access options

First screen of scenario

Imagine the street where you have your business changed and there was….
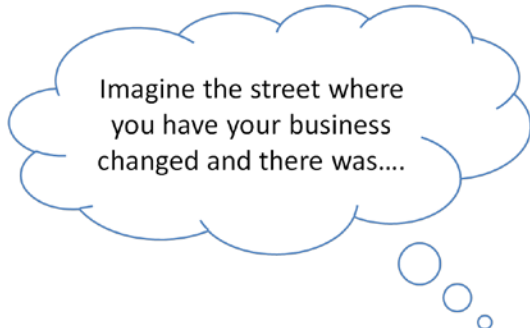
Second screen of scenario

a new busy public transport service close to your shop

Third screen of scenario

new bike routes that make it safer for customers to ride to your shop

Fourth screen of scenario

more space outside your shop for shoppers to relax and socialise

According to RFT those with a Good Promotion Focus Fit will be more sensitive to the absence or gain of opportunities and those with a Good Prevention Focus Fit will be more sensitive to the loss or non-loss of security (see research expectations previously presented in Table 3-6 and Table 3-8). To test if this is true for businesses confronted with changes to the accessibility of their business street, the research uses the variables PMOpportunityConcerns and PVSecurityConcerns to compare sensitivity to opportunities and security by Regulatory Fit using variables E1PMGoodPoorFit and E1PVGoodPoorFit. The hypotheses are described below and presented in Table 5-8.

The sample is split by sentiment to identify if RFT compliant behaviour is evident amongst both those who view the addition of access options as positive, and those who view it as negative. If businesses are acting in accordance to RFT it is expected that in the positive sentiment group, those with a Good Promotion Focus Fit will show more sensitivity to the gain of opportunities (PMOpportunityConcerns) than those with a Poor Promotion Focus Fit. While conversely, in the negative sentiment group those with a Good Promotion Focus Fit should show more sensitivity to the absence of opportunities. Similarly the variable

PVSecurityConcerns will be used to compare the sensitivity of Good Prevention Focus Fit and Poor Prevention Focus Fit to the non-loss of security in the positive sentiment group and to the loss of security in the negative sentiment group. In both cases, the variances of the compared groups will be used as a measure of RFT compliance. The Good Promotion Focus Fit group is expected to have a smaller variance for PMOpportunityConcerns than the Poor Promotion Focus Fit group. Similarly the Good Prevention Focus Fit group is expected to have a smaller variance for PVSecurityConcerns than the Poor Prevention Focus Fit group.

Table 5-8: Hypothesis statements for PMOpportunityConcerns and PVSecurityConcerns

Perception of Impacts (Event 1)		
PMOpportunityConcerns		
	Positive Sentiment Group	**Negative Sentiment Group**
H_0:	$\mu_{PMGoodFit} = \mu_{PMPoorFit}$	
H_1:	$\mu_{PMGoodFit} > \mu_{PMPoorFit}$	$\mu_{PMGoodFit} < \mu_{PMPoorFit}$
H_2:	$\sigma^2_{PMGoodFit} < \sigma^2_{PMPoorFit}$	
PVSecurityConcerns		
	Positive Sentiment Group	**Negative Sentiment Group**
H_0:	$\mu_{PVGoodFit} = \mu_{PVPoorFit}$	
H_1:	$\mu_{PVGoodFit} > \mu_{PVPoorFit}$	$\mu_{PVGoodFit} < \mu_{PVPoorFit}$
H_2:	$\sigma^2_{PVGoodFit} < \sigma^2_{PVPoorFit}$	

After collecting information about businesses' view on how the hypothetical change in access may affect CA, BC TCA, the Town Centre Business Survey asks respondents to indicate what actions they would take to attain their chosen business goal. Respondents are presented with list of actions, randomly ordered, drawn from the Table 4-13 list of actions that were compiled from the historical study and focus groups. To reflect respondents' stated preference for strategies targeted at 'keeping existing customers', 'attracting new customers', or 'both', three separate action lists were prepared which had slight variations to the wording of 12 strategic actions (see Table 5-9). The list of strategies were selected to provide respondents with a choice of traditional adaptive actions and more innovative adaptive business actions that tap into the new access resource. The categorisation of actions as traditional or new access is also shown in Table 5-9.

Table 5-9: Actions presented in Event 1, contextualised for targeting different customers

Event 1 actions		Wording of action item	Customer group targeted	Resource mobilised
1	Improve customer service	Ensure all customers are welcomed and get a quick and friendly service	Existing and new	Traditional resource
		Ensure regular customers get a quick and friendly service	Existing	
		Ensure customers are welcomed and served quickly	New	
2	Offer discounts and special offers	Reward existing and new customers with discounts	Existing and new	Traditional resource
		Reward existing customers with discounts	Existing	
		Promote special offers to people passing by the business	New	
3	Ask customers what they like	Chat more to customers and find out what they like	Existing and new Existing New	Traditional resource
4	Promote public transport options	Send a mail out about the new public transport options to customers	Existing	New access resource
5	Ask Council for bike parking	Ask Council for bike parking near your shop	Existing and new Existing New	New access resource
6	Organise special events for regular customers	Organise a special store event for regular customers	Existing	Traditional resource
7	Reward customers for word-of-mouth	Reward customers who help promote the business by word-of-mouth	Existing and new	Traditional resource
8	Market through window display	Change the window display regularly to attract people's attention	New	Traditional resource
9	Target advertising along public transport route	Target advertising to residents and workplaces along the new public transport routes	Existing and new New	New access resource
10	Provide customer seating	Utilise the extra pavement outside the shop to provide customer seating	Existing and new New	New access resource
11	Highlight added convenience of new transport options*	Highlight the added convenience of new transport options to customers	Existing and new Existing New	New access resource
12	No action needed	No action needed	Existing and new Existing New	

* Option was only presented to respondents who were surveyed in fieldwork phase 2.

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The number of strategies respondents choose is used as a proxy measure of Promotion Focus eagerness and Prevention Focus vigilance. Regulatory Fit is again used to distinguish compliant RFT behaviour. Consistent with research expectations presented in Table 3-7, those with a Good Promotion Focus Fit are expected to choose more actions than those categorised as Poor Promotion Focus Fit. Conversely, those with Good Prevention Focus Fit are expected to choose less actions than Poor Prevention Focus Fit. These expectations are set out as hypotheses in Table 5-10.

Table 5-10: Hypothesis statements for count of actions in Event 1

	Event 1	
	E1PMGoodPoorFit	**E1PVGoodPoorFit**
H_0:	$\mu_{PMGoodFit} = \mu_{PMPoorFit}$	$\mu_{PVGoodFit} = \mu_{PVPoorFit}$
H_1:	$\mu_{PMGoodFit} > \mu_{PMPoorFit}$	$\mu_{PVGoodFit} < \mu_{PVPoorFit}$
H_2:	$\sigma^2_{PMGoodFit} < \sigma^2_{PMPoorFit}$	$\sigma^2_{PVGoodFit} < \sigma^2_{PVPoorFit}$

As well as the number of actions chosen, it is expected that the type of actions businesses will take will also be affected by Regulatory Fit. The Town Centre Business Survey will therefore also test research expectations previously presented in Table 3-9 to observe if in Event 1, there is a difference in the take-up of traditional actions and actions that tap into the new access resources amongst respondents categorised by Regulatory Fit. If those with a competence in a Regulatory Focus and those without, respond differently when new access options are added to their business street this information could be useful in amending policy expectations about how and why businesses react as they do.

To compare the use of traditional resources and new access resources, each respondent is scored on their use of actions in accordance to Equation 5. The information about good or poor fit on each Regulatory Focus is used to assign respondents to three Regulatory Fit groups and compare their mean scores for traditional actions and new access resource actions.

Equation 5: Calculation of actions using traditional and new access resources

$$Use\ of\ traditional\ resources = \frac{traditional\ resources\ chosen}{traditional\ resources\ possible}$$

$$Use\ of\ new\ access\ resources = \frac{new\ access\ resources\ chosen}{new\ access\ resources\ possible}$$

The three Regulatory Fit groups are shown in Table 5-11, for Event 1. It is expected that the three groups will act distinctively from each other as their competency in eager and vigilant strategies will vary. Those with poor fit on both Promotion Focus and Prevention Focus are expected to be more reluctant to use new access resources due to lower goal-attainment competence. The hypothesis statements are presented in Table 5-12.

Table 5-11: Assignment of respondents in three groups based on Regulatory Fit in Event 1

Event 1	E1PMGoodPoorFit	
E1PVGoodPoorFit	Poor Promotion Focus Fit	Good Promotion Focus Fit
Poor Prevention Focus Fit	E1 Group 1 Poor PM Poor PV	E1 Group 2 Good PM Poor PV
Good Prevention Focus Fit	E1 Group 3 Poor PM Good PV	n/a

Table 5-12: Hypothesis statements about type of actions in Event 1

	Use of traditional resources	Use of new access resources
H_0:	$\mu_{E1Group1} = \mu_{E1Group2} = \mu_{E1Group3}$	$\mu_{E1Group1} = \mu_{E1Group2} = \mu_{E1Group3}$
H_1:	$\mu_{E1Group1} > \mu_{E1Group2}$	$\mu_{E1Group1} < \mu_{E1Group2}$
H_2:	$\mu_{E1Group1} > \mu_{E1Group3}$	$\mu_{E1Group1} < \mu_{E1Group3}$

5.1.5 Event 2, removal of car parking to allow for sustainable transport

The second event scenario builds on the first. The survey screen shown in Figure 5-3 informs respondents that parking has been removed. This is followed by one of two randomly assigned screens with instructions framed by Regulatory Focus. NoPark1 is designed to induce Promotion Focused strategies, and NoPark2 to induce Prevention Focused strategies.

Figure 5-3: Event 2 scenario and the instructions for NoPark1 and NoPark2

NoPark1 instructions (inducing Promotion Focus)
"Choose actions from the list that you think would help your business survive."

No Park 2 instructions (inducing Prevention Focus)
"Choose actions from the list that you ought to do to avoid the business failing."

The actions presented to respondents in NoPark1 and NoPark2 are identical, though the order actions are displayed for individuals is randomised. These are shown in Table 5-13

Table 5-13: Actions presented in Event 2, informed car parking has been removed

Event 2 actions		Wording of action item	Resource mobilised
1	Complain to Council	Contact Council on behalf of customers who don't like the change to parking	Traditional resource
2	Refund parking costs	Refund parking costs when customers spend over a set amount	Traditional resource
3	Offer delivery service	Offer a delivery service to customers	New access resource
4	Share good parking locations	Provide customers with information about good places to park	Traditional resource
5	Provide customer seating	Utilise the extra pavement outside the shop to provide customer seating	New access resource
6	Show parking in adverts	Create new advertising material that shows where to find parking	Traditional resource
7	Create customer parking	Create customer parking by converting space normally used for storage or staff parking	Traditional resource
9*	Adapt business to use transport options	Adapt business strategies to make better use of new transport options	New access resource
8	No action needed	No action needed	

* Option was only presented respondents who were surveyed in fieldwork phase 2.

As identified in Chapter 3 and Table 3-12 it is expected that the induced Regulatory Focus will dominate irrespective of Regulatory Fit. The survey is therefore designed to test the hypotheses set out in Table 5-14 by categorising respondents in NoPark1 and NoPark2 by their Regulatory Fit. As previously, Regulatory Fit is determined by their scores on the RFSS and alignment to the Regulatory Focus of the goal-task.

Table 5-14: Hypothesis statements for Event 2 count of actions

	Event 2: Inducing Regulatory Focus	
H_0:	$\mu_{NoPark1} = \mu_{NoPark2}$	
H_1:	$\mu_{NoPark1} > \mu_{NoPark2}$	
	NoPark1 (inducing Promotion Focus)*	**NoPark2 (inducing Prevention Focus)***
H_0:	$\mu_{NoPark1GoodFit} = \mu_{NoPark1PoorFit}$	$\mu_{NoPark2GoodFit} = \mu_{NoPark2PoorFit}$
H_2:	$\mu_{NoPark1GoodFit} > \mu_{NoPark1PoorFit}$	$\mu_{NoPark2GoodFit} < \mu_{NoPark2PoorFit}$

*Where rejection of null indicates that inducing Regulatory Focus is moderated by Regulatory Fit, that is, less effective amongst those with PoorFit.

As with Event 1, the analysis of respondent behaviour in Event 2 also takes into account the type of actions those with a Good Promotion Focus Fit choose compared to those with a Good Prevention Focus Fit. In Event 2, there are as many actions that use the traditional resource of car parking access as there are actions that use new access resources. The categorisation of actions as using traditional or new access resources is shown in Table 5-13. Equation 5 is used to calculate the usage of traditional resources and new access resources.

The focus of the second research question is to learn if businesses are willing to adapt to changes in transport access and trip-making to town centres. By presenting the same list of actions in Event 2 with two different Regulatory Focused goal-tasks the survey can observe how businesses willingness to adapt their strategies to 'capture' customer motility from the new access resource as well as the take-up of strategies to strengthen their customer appeal through more traditional resources.

The sample is categorised into three groups using Regulatory Fit to observe differences in strategic behaviour (see Table 5-15). Poor Regulatory Fit has been observed to reduce capacity of businesses to adapt in unstable environments. It is therefore expected that E2Group 1 will show a greater preference for traditional actions over actions that use the new access resources. These research expectations are shown in Table 3-9. The hypothesis tests are presented in Table 5-16.

Table 5-15: Assignment of respondents in three groups based on Regulatory Fit in Event2

Event 2	E2PMGoodPoorFit	
E2PVGoodPoorFit	Poor Promotion Focus Fit	Good Promotion Focus Fit
Poor Prevention Focus Fit	E2Group1	E2Group3
Good Prevention Focus Fit	E2Group2	n/a

Table 5-16: Hypothesis statements about type of actions in Event 2

	Use of traditional resources	Use of new access resources
H_0:	$\mu_{E2Group1} = \mu_{E2Group2} = \mu_{E2Group3}$	$\mu_{E2Group1} = \mu_{E2Group2} = \mu_{E2Group3}$
H_1:	$\mu_{E2Group1} > \mu_{E2Group2}$	$\mu_{E2Group1} < \mu_{E2Group2}$
H_2:	$\mu_{E2Group1} > \mu_{E2Group3}$	$\mu_{E2Group1} < \mu_{E2Group3}$

5.1.6 Event 3, customers' sensitivity to petrol prices and green business

Like Event 2, Event 3 is designed to test the effectiveness of message framing with Regulatory Focus to induce business behaviour, but additionally it also assesses business sensitivity to react to information about new customer values. The message framing presented in Event 2 reflected business beliefs, identified in the literature and echoed in the Local Government Focus Groups that removing car parking is a threat to business viability. Event 3 presents new information about a hypothetical change in customer values that is aimed to focus businesses on the opportunities for business viability provided by increased accessibility by sustainable transport modes.

In Event 3, respondents are randomly assigned to one of two scenarios that induce either a Promotion or Prevention Focus. The scenario inducing a Promotion Focus is about customer support for green businesses (GreenBizOp) and is illustrated in Figure 5-4.

Figure 5-4: GreenBizOp scenario and instructions for Event 3

Environmentally friendly businesses are becoming more popular with customers.

GreenBizOp instructions (inducing Promotion Focus)

"Which actions would help your business become environmentally friendly?"

The type of actions presented to businesses are appropriate to the context of increased 'green consumerism' which include actions that would also utilise the new transport access options and contribute to the 'green business' ethos. These are shown in Table 5-17. The colour coding of items relates to the task induced, not categorisation of actions as Promotion or Prevention Focused.

Table 5-17: Actions offered in GreenBizOp Event 3 to become environmentally friendly

	Event 3 GreenBizOp Action	Wording of action item	Resource mobilised
1	Publicise green business actions	Include news about green business actions you adopt in your marketing	Traditional resource
2	Try become a bike ride destination	Contact the local bike group about becoming a destination for their cycle rides	New access resource
3	Be part of shop local campaign	Be part of a town centre shop locally campaign that gives discounts to locals	New access resource
4	Change to eco-friendly bags	Get green friendly bags printed with your business brand instead of plastic bags	Traditional resource
5	Wait and see what others do	Wait and see if your business competitors go green first	Traditional resource
6	Join local car share	Join the local car share instead of owning business vehicles	New access resource
7	Reduce resource consumption	Save money by reducing consumption of water, supplies, electricity and fuel	Traditional resource
8	Check products are eco-friendly	Check that none of the products used could put at risk a green business reputation	Traditional resource
9	Buy bulk to reduce costs	Reduce costs by buying more stock in bulk from overseas	Traditional resource
10	No action needed	No action needed	

The alternative Event 3 scenario is designed to induce a Prevention Focused response amongst businesses. The hypothetical scenario (PetrolOp) centres on how rising petrol prices result in a change of customer transport choices (see Figure 5-5). The actions presented to respondents are consistent with the scenario and include actions that could use the new transport access options as a strategy to reduce the business vulnerability. The actions presented to respondents are shown in Table 5-18.

Figure 5-5: PetrolOp scenario and instructions for Event 3

Petrol costs keep rising. People are using their car less to save money.

PetrolOp instructions (inducing Prevention Focus)

"Which actions ought you choose to protect your business from rising petrol costs?"

Table 5-18: Actions offered in PetrolOp Event 3 to protect business from rising petrol costs

	Event 3 PetrolOp Action	Wording of action item	Resource mobilised
1	Join local car share	Join the local car share instead of owning business vehicles	New access resource
2	Reduce trips to suppliers	Reduce number of trips to the supplier by planning better	New access resource
3	Raise prices	Increase prices to cover future increases in petrol costs	Traditional resource
4	Cut staff hours	Cut back staff hours to save money	Traditional resource
5	Try become a bike ride destination	Contact the local bike group about becoming a destination for their cycle rides	New access resource
6	Contribute to bad news story	Tell the local newspaper how rising petrol costs hurts your business	Traditional resource
7	Help finance town radio advert	Help fund a Sydney-wide radio advert about the town centre	Traditional resource
8	Be part of shop local campaign	Be part of a town centre shop locally campaign that gives discounts to locals	New access resource
9	Develop and increase online business	Develop website to attract more online customers and online sales	New access resource
10	No action needed	No action needed	

The two scenarios in Event 3 are designed to test if respondents exhibit strategic behaviour consistent with the induced Regulatory Focus. Expectations previously presented in Table 3-12 about inducing RFT behaviour and the moderating effect of Regulatory Fit again are tested. Table 5-19 presents these as hypothesis statements. The first hypotheses compares the induced strategic behaviour of the two scenarios. Although the contexts of GreenBizOp and PetrolOp are different the strategic Regulatory Focus approach (eagerness versus vigilance) are comparable. The second set of hypotheses focuses on the strategic behaviour of respondents within the same induced scenario, and tests if those with good Regulatory Fit exhibit more compliance to the RFT model than those with poor Regulatory Fit.

Table 5-19: Hypothesis statements for Event 3

	Event 3	
H_0:	$\mu_{GreenBizOp} = \mu_{PetrolOp}$	
H_1:	$\mu_{GreenBizOp} > \mu_{PetrolOp}$	
	GreenBizOp (inducing Promotion Focus)	**PetrolOp (inducing Prevention Focus)**
H_0:	$\mu_{GreenBizOpGoodFit} = \mu_{GreenBizOpPoorFit}$	$\mu_{PetrolOpGoodFit} = \mu_{PetrolOpPoorFit}$
H_2:	$\mu_{GreenBizOpGoodFit} > \mu_{GreenBizOpPoorFit}$	$\mu_{PetrolOpGoodFit} < \mu_{PetrolOpPoorFit}$
H_3:	$\sigma^2_{GreenBizOpGoodFit} < \sigma^2_{GreenBizOpPoorFit}$	$\sigma^2_{PetrolOpGoodFit} < \sigma^2_{PetrolOpPoorFit}$

Expectations in Event 1 and 2 that traditional actions would be favoured by Regulatory Fit influencing the tendency to take certain type of actions do not apply in Event 3 as information about the new customer value in a Regulatory Focus framed message is intended to induce behaviour change. In Event 3, the desired behaviour is the take-up of actions that are synergetic to policy goals. It is therefore the expectation that for both GreenBizOp and PetrolOp scenarios there will be a greater use of new access resources than traditional resources. The hypothesis statements are shown in Table 5-20.

Table 5-20: Hypothesis statements about type of actions in Event 3

	GreenBizOp (inducing Promotion Focus)	**PetrolOp (inducing Prevention Focus)**
	Actions using traditional versus new access resources	
H_0:	μ Traditional resource = μ New access resources	
H_1:	μ Traditional resource < μ New access resources	

5.1.7 Observing respondent behaviour over three events

Observing businesses' behaviour over three events enables this study to observe the potential of Regulatory Focus to help policymakers encourage a change in behaviour and change in how businesses value the new access features. The analysis of behaviour change takes into account the increasing take-up of actions that use the new access features and actions that are synergetic to policy goals. The research expectation is that using Regulatory Focus to frame the goal-tasks in the Disturbance 2 (Event 3) will result in a greater take-up of actions categorised as synergetic than in Disturbance 1 (Events 1 and 2 combined). These expectations are presented in Table 5-21.

Table 5-21: Hypothesis statements about changes in actions between Disturbance 1 and 2

	Take up of antagonistic actions	**Take up of synergetic actions**
H_0:	$\mu Antagonistic_{E1\&2} = \mu Antagonistic_{E3}$	$\mu Synergetic_{E1\&2} = \mu Synergetic_{E3}$
H_1:	$\mu Antagonistic_{E1\&2} > \mu Antagonistic_{E3}$	$\mu Synergetic_{E1\&2} < \mu Synergetic_{E3}$

Where:

$$Take\ up\ of\ antagonistic\ actions = \frac{antagonistic\ actions\ taken}{antagonistic\ actions\ possible}$$

$$Take\ up\ of\ synergetic\ actions = \frac{synergetic\ actions\ taken}{synergetic\ actions\ possible}$$

To determine if the probability of take-up of synergetic and antagonistic actions can be explained by exposure to interventions in the Town Centre Business Survey the behaviour of businesses in the Regulatory Fit groups in Events 1, 2 and 3 is compared. If respondents with the same Regulatory Fit over the course of interventions act more similar than those businesses exposed to a different set of interventions – then this will support the claim that framing policy messages by Regulatory Focus can be an effective behaviour change intervention tool. Table 5-22 shows the allocation of respondents to each group by Regulatory Fit.

Table 5-22: Organisation of groups for analysis of number of dependent variable actions taken

Event 1	E1PMGoodPoorFit	
E1PVGoodPoorFit	Poor Promotion Focus Fit	Good Promotion Focus Fit
Poor Prevention Focus Fit	E1Group1	E1Group3
Good Prevention Focus Fit	E1Group2	n/a
Event 2	**E2PMGoodPoorFit**	
E2PVGoodPoorFit	Poor Promotion Focus Fit	Good Promotion Focus Fit
Poor Prevention Focus Fit	E2Group 1	E2Group 3
Good Prevention Focus Fit	E2Group 2	n/a
Event 3	**E3PMGoodPoorFit**	
E3PVGoodPoorFit	Poor Promotion Focus Fit	Good Promotion Focus Fit
Poor Prevention Focus Fit	E3Group 1	E3Group 3
Good Prevention Focus Fit	E3Group 2	n/a

Table 5-23: Hypothesis statement on influence of Regulatory Focus

	Event 1 – three groups compared
H_0:	$\mu_{E1\ Group\ 1} = \mu_{E1\ Group\ 2} = \mu_{E1\ Group\ 3}$
H_1:	$\mu_{E1\ Group\ 2} < \mu_{E1\ Group\ 1} < \mu_{E1\ Group\ 3}$

Examining the consistency of business actions over the course of the three event scenarios serves two purposes – to assess behaviour change and policy impact. Inducing behaviour change through framing messages by Regulatory Focus has to be assessed not only in individual scenarios, but across individuals. The second purpose is to assess how the reactions of businesses to each scenario could impact policy goals. For this, the coding of actions in Events 1, 2 and 3 against the power framework is important.

Focusing businesses on the opportunities provided by the sustainable transport modes aligns with the policy goals to reduce car dependency whilst also having thriving town centres. The value of providing information on customer values is assessed by analysing the type of actions businesses take, and specifically the propensy of taking up actions synergetic to policy goals. The use of power by respondents is assessed against various explanatory factors and the motility of the town centre so as to address the third research question. The results and analysis is reported in Chapter 7.

5.2 Methods used in the Town Centre Business Survey

For researchers setting out to collect a business perspective on controversial policy topics such as sustainable transport, there is little guidance on the most effective use of limited research resources. Engaging business populations in surveys can be challenging and resource-intensive, and even more so for a population of small business owners whose willingness to participate may be additionally constrained by time, language skills, the contentious of the issue or sensitivity of the data (Collins *et al.*, 1995; Puryear *et al.*, 2008; Runyan, Droge and Swinney, 2008; Seebregts *et al.*, 2009; Caeyers, Chalmers and Weerdt, 2010). There are standard survey method techniques (such as personalising recruitment approaches, using simple language, reducing survey length and complexity) known to help reduce respondent burden and improve levels of engagement (Stopher, 2011), but their effectiveness in the context of surveying business populations on sustainable transport topics is unknown.

This section of the chapter reports on decisions about the survey methods aimed at maximising survey response rates and the efficient use of limited research resources. The decisions include the choice of sampling frame, stratified random sampling and the contextualisation of recruitment methods and survey instrument design to suit a target population of business owners and managers. To guide the decisions, a review of the transport, retail marketing and small business literature was conducted, focusing on surveys of shop-based businesses in town centre environments. Studies were chosen based on their relevance to the Sydney study area, and therefore international studies done in an urban metropolitan environment were included. A preference for academic studies over consultation studies was a criteria for inclusion, however the non-reporting of sampling techniques, response rates and recruitment was more often the basis of exclusion. The examples listed in Table 5-25 and Table 5-26 are organised by the use of sampling frames.

Although this review identified there was no 'fail-safe' approach to guarantee high response rates it did highlight an absence of studies utilising new internet enabled tablet devices to help engage a population of small store owners and managers. This chapter section therefore includes information about the use of an iPad 2 and how it served as a survey instrument, a strategy to generate participant interest in the survey, as well as a system to manage fieldwork data. The analysis of response rates and the effectiveness of the survey method decisions complete this chapter.

5.2.1 Sampling frames and representativeness

A decision was made to survey a random sample of businesses as it would allow statistical inferences to be made about the usefulness of RFT to explain the behaviour of other town centre populations. To control for heterogeneity of a small business population, and safeguard representation in a cost-efficient manner, the random sample was stratified by LGA and business type. To allow for transferability of findings, the business type categories and definitions were the same as those used in an Australian study of town centres (Reimers and Clulow, 2004), which are also similar to those used by Stantec (2011). These definitions are provided in Appendix 2.

Although randomly sampled surveys are known to be superior in controlling for sample bias and representativeness, and allowing comparability of findings – the review of studies found few cases where they were used. Table 5-25 and Table 5-26 organise studies incorporated in the review by sampling approach). This is repeatedly raised as a concern in the business academic literature, with reviewers identifying that the nondisclosure of quantitative detail about survey and sampling methods is compromising the transferability of research outcomes (Puryear *et al.*, 2008; Mullen, Budeva and Doney, 2009; Melnyk *et al.*, 2012).

The issue of sampling frames is one which has the greatest potential to limit surveys outcomes as having only local relevance. A sampling frame should be a complete and accurate list of members of the survey target population, however these can be difficult and costly to attain. To lower research costs and time, many studies choose to use a pre-existing sampling frame but in exchange trade-off control that the listings are eligible, relevant and accurate. Evidently, the most convenient low cost option is a pre-existing membership list such as that held by the town centre business chambers that Runyan et al (2008) used. At a higher cost, searchable criteria business databases help researchers customise and stratify a sampling frame on variables such as location and business type and sometimes business size. For instance, Holguin-Veras (2006) and Walker and Brown (2004) both used a commercial database to draw their random samples. This decision gave them opportunities to calculate confidence levels about representativeness and maximise homogeneity on key attributes to reduce statistical error (Schwartz, Birch and Teach, 2007; Stopher, 2011). Reporting such information would have additionally given other researchers useful insights about the transferability of the findings.

Although non-randomised sampling strategies compromise the representativeness of data, surveys conducted for LGAs or business chambers on town centre transport matters often involve approaching all possible businesses within a study area. This census approach of surveying has the advantage of providing all respondents the opportunity to participate, and safeguards against low response rates affecting the final sample size. The trade-offs are the resource costs of approaching all businesses, and limiting the transferability of findings to other locations. Randomised approaches such as surveying businesses along randomly chosen routes through the study area, as done by Castillo-Manzano & López-Valpuesta (2009), use fieldwork resources more time efficiently but can be vulnerable to unintentional subjective bias if the random paths are determined in the field (Stopher, 2011).

To select a random sample for the Town Centre Business Survey, a commercial product Australia on Disc (AOD) was used. This database of Australian businesses was also used by Walker and Brown (2004) and was intended to save time required to construct a sampling frame. AOD however had less search functionality than anticipated. As street name searches were unavailable, a list of businesses was created based on search queries of postcode and business type. On inspection of the search results, claims about the accuracy of AOD were found to be exaggerated. Twenty percent of the 5,290 business listings were found to be duplicates suggesting that their annual updates involved only adding new listings and not updating or deleting previous listings. Of the remaining businesses a significant portion (45 percent) had to be extracted as they were ineligible for the survey as the businesses were located within shopping centres or in places other than on the main streets of the local town centres and villages. To address concerns about accuracy, Internet searches and site visits were used to verify the final list of businesses. The final sampling frame comprised 2,215 businesses, which were proportionately stratified by LGA and business type (see Table 5-24).

Table 5-24: Breakdown of sampling frame by business type and LGA

Business Type	Leichhardt		Marrickville		Sydney		Grand Total	
	Count	%	Count	%	Count	%	Count	%
Food and Health Stores	106	4.8%	174	7.9%	255	11.5%	535	24.2%
Food Service	218	9.8%	208	9.4%	713	32.2%	1139	51.4%
Fashion	101	4.6%	112	5.1%	328	14.8%	541	24.4%
	425	**19.2%**	**494**	**22.3%**	**1296**	**58.5%**	**2215**	**100%**

Table 5-25: Studies using a random sample drawn from a sampling frame

Authors & topic	Target population	Sampling Frame & population size	Survey & Recruitment Method	Sample Size (Response Rate)
Castillo-Manzano & López-Valpuesta (2009) Perception of benefits from Metro under construction	Retailers, all sizes, in areas with new Metro stations Seville, Spain	Random sample of study area using randomised walking routes. Population = 647 businesses	Paper survey (8 questions) In-field recruitment	258 survey responses Response rate not reported.
Holguin-Veras (2006) Changes to parking (off-peak delivery)	Mix of businesses that transport and/or receive goods. New York and New Jersey, USA.	Random sample extracted from commercial business database, supplemented with snowball recruitment. Population of receivers = 10,000 which included: Retailers = 300 Food businesses = 490	Computer assisted telephone interview (CATI) used for Manhattan receivers Other methods used for other sub-samples.	180 Manhattan receivers interviewed 97 shop-based businesses Response rate not reported for this sub-sample.
Walker and Brown (2004) Success factors of small business owners	Business owners limited to one industry, not retail. Western Australia, Australia	Random sample extracted from commercial business database Population in sampling frame = 13498 Random sample = 1172	Paper survey mailed and posted back by respondent Two thirds prenotified by telephone before survey sent to named contact One third sent unsolicited addressed to the proprietor 724 surveys posted out.	290 useable surveys returned (40%) Prenotified (61%) Unsolicited (16%) Refusal rate from telephone prenotification not reported.
Drennen (2003) Perceived economic impact of bike lane on businesses, 4.5 years after construction.	Retailers, service and food businesses located along bike corridor. San Francisco, USA.	Sample randomly generated based on property. Population = 122 Random sample = 27	Face-to-face interview using survey instrument (15 questions) In-field recruitment but no details provided on approach.	27 business respondents. Not clear if response rate is 100% .

Table 5-26: Studies using a census of sampling frame

Authors & topic	Target population	Sampling Frame & Population size	Survey & Recruitment Method	Sample Size (Response Rate)
Stantec (2011) Economic impact of new bike lanes	Street-grade businesses located on case study streets: 2 with bike lanes 2 without bike lanes. Vancouver, Canada	Census of four case-study streets Population approached = 225	Paper survey hand-delivered Respondent to mail back	73 surveys (32%)
Rye et al. (2008) Changes to parking (cost and permits)	Retailers and other businesses in study area. Edinburgh, Scotland.	Census of study area Population = 1935 Retailers = 535 Other businesses= 1400	Paper survey mailed back by respondent. Hand-delivered to retailers. Mailed to other businesses	378 survey responses (27%) Retailers = 185 (35%) Other businesses = 192 (14%)
Runyan, Droge and Swinney (2008) Measuring entrepreneurial and small business orientation	Store businesses in 11 downtown areas of nonurban rural communities Midwest, USA	Census of study area based on lists provided by local business chamber Combined population approached = 1108	Prenotification email from local business chamber encouraging participation. Paper survey delivered. Survey collected on set date. Non-respondents visited twice.	267 usable surveys (24%)
Jones, Roberts and Morris (2007) Value and issues of mixed-use streets	Shop businesses on three case-study streets Coventry, Sheffield & South London, England.	Census of study area Total population = 600 est. Coventry = 97 Sheffield = 161 South London = 341	Interviews In-field recruitment	314 interviews (52%) Coventry = 78 (80%) Sheffield = 87 (54%) South London = 150 (44%)
Vu, Shankar and Ulfarsson (2006) Business attitudes to access management	Industrial, commercial and retail businesses along six arterial road corridors State of Washington, USA	Census of six road corridors (RC) of varied sizes Population approached = 1908 RC1 = 100, RC2 = 125, RC3 = 33, RC4 = 400, RC5 = 500, RC6 = 750	Paper survey hand-delivered Respondent to mail back	283 surveys (14.8%) By road corridor (RC): RC1 = 10 (10.0%), RC2 = 14 (11.2%), RC3 = 6 (18.2%), RC4 = 71 (17.8%), RC5 = 87 (17.4%), RC6 = 95 (12.7%)

5.2.2 Recruitment, survey types and response rates

There is disagreement about what is an acceptable response rate for small business surveys, especially in light of more general trend of falling response rates amongst business surveys (Dennis Jr, 2003; Melnyk et al., 2012). Some argue factors influencing small business owners participation in surveys are not only distinct from those affecting householders but also decision-makers of large organisations because levels of authority, time, and interest are different (Dennis Jr, 2003). Determining an average response rate is also an issue of comparability. When relevant research is found it often under-represents small business owners, has divergent research focuses or survey methods (Dennis Jr, 2003). The response rates in Table 5-25 and Table 5-26 are a case in point as response rates vary from 11.2 to 80 (possibly 100) percent. Nevertheless, to help achieve a better than average response rate, and thereby a more efficient expenditure of resource effort, the factors contributing to response rates reported in the reviewed studies were examined. The outcome was a decision to prioritise strategies that would reduce respondent burden and increase the ease of survey completion as these were expected to be most important in engaging a small business population.

The lowest response rates in the selection of studies were associated with unsolicited surveys requiring respondents to post back the survey, an observation that is true of surveys in general. For instance, Rye *et al* (2008) achieved a response rate of 14 percent for surveys posted to businesses, compared to a 35 percent response rate for surveys that were hand-delivered to businesses. Walker and Brown (2004) observed a more significant difference in response rates when telephone prenotification about the postal survey had to stop due to budget concerns. Response rates dropped from 61 percent to 16 percent. Sketchy details on recruitment make it difficult to discern how the apparent 100 percent response rate was achieved by Drennen (2003) in their small study.

Despite personalising recruitment being a recommendation in the literature (Melnyk *et al.*, 2012), it did not appear to predictably raise response rates amongst the studies. Jones et al (2007) used the same in-field recruitment and on-the-spot personal interview approach in three case-study areas and gained response rates of 80 percent, 54 percent and 44 percent. Shifting some of the response burden from the respondent to the researcher has been found to be effective. Dennis Jr (2003) notes repeat contacts and stamped return envelopes are two of four treatments said to consistently improve response rates. However this was not apparent

amongst the studies. Response rates in the Stantec (2011) and Rye et al (2008) surveys were higher (32 percent and 35 percent respectively) than the 24 percent response rate gained by Runyan et al (2008).

Personalising recruitment and making it easy for respondents to participate clearly helped increase the response rate but not guarantee it. Although the survey instrument is understood to impact willingness to participate the effectiveness of new electronic mobile devices that the portability of a clipboard whilst providing better data confidentiality than paper surveys was untested amongst the pool of studies. While it is unrealistic to assume a one-size-fits-all survey strategy exists, a decision was made to conduct the Town Centre Business Survey in the field using a combination of strategies. These were: prenotification, face-to-face recruitment, repeat visits and an iPad for respondents to complete the online survey.

Figure 5-6: Prenotification letter
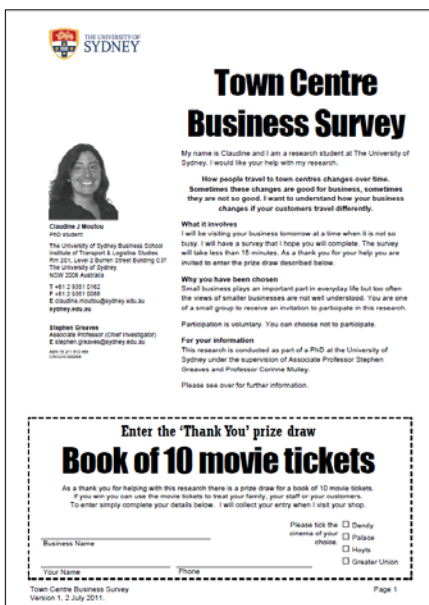
In designing the online survey it was taken into account that the number of survey items, and the intrusiveness and saliency of topic matter can all affect the willingness of respondents to participate in survey research (Fan and Yan, 2010; Stopher, 2011; Melnyk et al., 2012). Businesses' reluctance to share detailed and commercially-sensitive data about financial competitiveness can, for example, be a significant barrier to participation (Runyan, Droge and Swinney, 2008). Additionally, the Local Government Focus Groups raised concerns that businesses may react badly if they suspected the survey was a precursor to 'real' Council activity.

Endorsement of a survey by a trusted authority is known to help, with university sponsorship being another of the four treatments consistently increasing response rates (Dennis Jr, 2003). The fourth successful treatment in the Dennis Jr list is the use of incentives. Although there was insufficient detail to determine if these were factors amongst the studies reviewed, a decision was made to place emphasis on the university endorsement, and the survey contributing to a student's PhD research. The standard University prenotification letter which provides participant information about the study was adapted with Ethics Committee

permission, to resemble a business leaflet and included a picture of the PhD student researcher. At the base of the prenotification was a form for entry into the 'Thank You Prize Draw' to win a book of ten movie tickets (valued at approximately $150). This was deemed an appropriate incentive as it could be enjoyed by the business owner with their employees, family or customers. The prenotification was delivered in an unsealed University branded envelope marked as 'information for the business owner and/or manager'. A larger scale copy of the Prenotification letter is provided in Appendix 4.

Collecting survey data through online surveys is said to not only address concerns about data confidentiality, but also ease the burden of participation. Surveys entered directly into an electronic device protect data security better than paper surveys, whilst also being able to exclude redundant questions on-the-fly (Seebregts *et al.*, 2009; Caeyers, Chalmers and Weerdt, 2010). The immediacy of the data collection also avoids the costliness and errors of back-end data entry (Caeyers, Chalmers and Weerdt, 2010). While a self-administered online survey reduces the inconvenience of having to interact with a researcher or post back a survey, this is of no advantage if the business does not access the Internet in the shop. Transport and health researchers have conducted mobile computer-assisted personal interviews (CAPI) using Palm-pilots and laptops to survey populations with low or restricted access to the Internet (Seebregts *et al.*, 2009; Caeyers, Chalmers and Weerdt, 2010; Yetter and Capaccioli, 2010; Stopher, 2011). Similar approaches may have been used to survey shop owners, though no cases were found in the literature.

The portability and appeal of a new generation of internet-enabled tablet devices, such as the Apple iPad2, was identified as an opportunity that would help increase the convenience and 'novelty' of businesses participating in the survey. A new term, web-assisted personal interviewing (WAPI) has emerged to describe surveys conducted with tablet devices, and these are increasingly part of the commercial tool kit of market researchers. To date, the academic literature has been slow to accommodate this new technology in its research methods. No instances of WAPI, or the use of tablet devices more generally, have been found in surveys of shop-based businesses.

Beyond capitalising on the novelty and intrigue value, the iPad's mobility and functionality offered a number of advantages to the research. It addressed concerns that businesses may not have computer or internet access within their shops, and avoided the logistical concerns about power outlets, set-up time and carrying weight common to fieldwork use of portable

computer devices. Testing identified that a fully charged iPad had sufficient life for a full day of survey fieldwork activity; nevertheless the iPad was recharged when fieldwork breaks permitted, as it was a quick process. The device served also as a research tool to set appointments, write fieldwork notes in qualitative and quantitative formats, and reference information such as public transport timetables and maps.

Finally in recognition that even with repeat visits, it may be difficult to connect with the business owner it was determined that the business manager would be accepted as a survey respondent. This would not only help reduce 'unproductive' fieldwork time it would allow the statistical data analysis to observe if there were significant differences between managers and owners. To measure the effectiveness of these innovative survey methods detailed logs of contacts made with business owners and managers were collected using the iPad.

5.2.3 Drawing and recruiting the sample

The desired sample size for this survey was ambitiously set at 250-300 businesses and calculated by the number of businesses in each stratum. Based on an average response rate of 30 percent in other small business surveys (Dennis Jr, 2003), 902 businesses were drawn without replacement using random numbers from the RAND Corporation as recommended by Stopher (2011). On inspection of the sample, some of the businesses had been drawn more than once and were excluded resulting in a final list of 854 businesses.

The randomly drawn sample of businesses was organised by centre, and a fieldwork schedule was developed prioritising centres with a sufficient number of businesses to approach. As the CBD was annexed from the study area representation of the small business population in the City of Sydney was generally lower than Leichhardt and Marrickville. In total, 366 businesses from 19 town centres were approached to participate. The size of centres and the number of businesses approached in each centre varied, as shown in Table 5-27. The businesses drawn from the sampling frame were unevenly distributed across the study area. This resulted in a lower than expected number of businesses being approached to participate in the survey.

Table 5-27: Breakdown of fieldwork schedule by centre size and count of businesses

Week	Centre name	LGA	Centre classification	Businesses drawn	Business approached
1	Redfern	Sydney	Village	14	13
2	Annandale	Leichhardt	Village	14	15
	Petersham	Marrickville	Village	15	14
3	Pyrmont	Sydney	Village	7	10
	Glebe	Sydney	Village	23	23
	Forest Lodge	Sydney	Village	4	2
	Erskineville	Sydney	Village	6	7
4	Leichhardt Norton St	Leichhardt	Town Centre	42	29
	Leichhardt Marion St	Leichhardt	Village	11	7
5	Newtown	Marrickville & Sydney	Town Centre	61	53
	Enmore	Marrickville	Town Centre	16	13
6	Balmain	Leichhardt	Town Centre	40	25
	Rozelle	Leichhardt	Town Centre	23	17
7	Marrickville	Marrickville	Town Centre	64	44
	Dulwich Hill	Marrickville	Village	27	18
8	Surry Hills	Sydney	Town Centre	83	45
9	Potts Point	Sydney	Village	28	13
	Darlinghurst	Sydney	Village	31	12
	Stanmore	Marrickville	Village	7	6
	TOTAL			**516**	**366**

Note: Centres were classified using the NSW Government (2010) hierarchy of local centres previously presented in Table 1-1.

The time spent in the field was a function of the number of businesses randomly drawn from each town centre, with those town centres with a higher concentration of businesses requiring less time spent travelling. However, as the fieldwork progressed, the fieldwork plan also got more ambitious with a larger number of businesses, and/or town centres approached which had the effect of improving the efficiency of time. Additionally an analysis of the recruitment approaches from the first period of fieldwork identified some opportunities to improve the response rates, which resulted the second stage of fieldwork having a 47 percent response rate, compared to 40 percent in the first period (see Table 5-28).

Table 5-28: Comparison of recruitment success for the two periods of fieldwork

Measures of recruitment success	Weeks 1-6	Weeks 7-9	Combined
Recruitment Approaches			
Number of businesses approached	228	138	366
Approached in person	157	120	277
Under door	71	18	89
Number of hours in field (inc. pre-notification)	108	74.5	182.5
Recruitment Outcome			
Number of completes	91	65	156
Number of refusals	64	44	108
Number of unable to reach	73	29	102
Response Rate	**40%**	**47%**	**43%**
Average completes per hour	0.8	0.9	0.9
Average number of fieldwork hours per complete	1.4	1.2	1.3

Figure 5-7: The study area and the town centres where surveys were conducted (Source: this research)
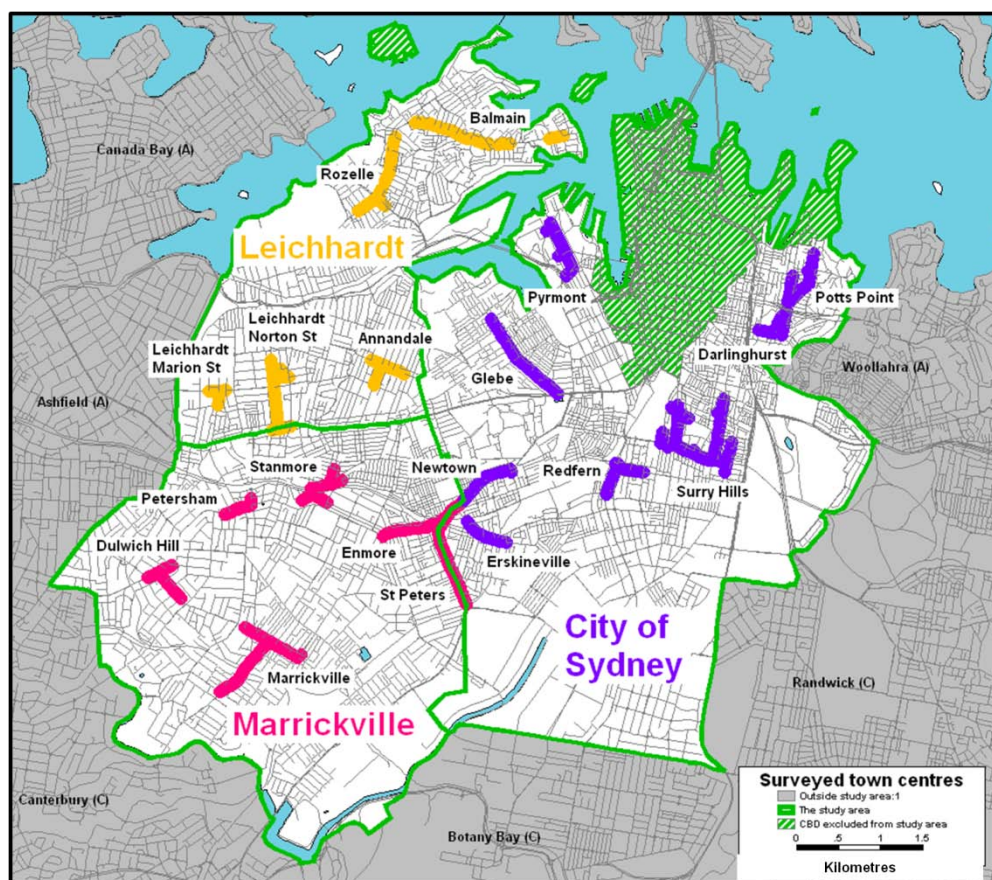
5.2.4 Analysis of strategies used to improve response rates

Data was collected during the fieldwork so as to assess the effectiveness of strategies. After an encounter with businesses, an online log was routinely completed on the iPad. Structured as a short online survey, it was designed to systematically captured socio-demographic data and the outcome from the encounter (Completed, Declined, Delayed Decision). Secondly, a fieldwork log spreadsheet was used to count number of encounters and participative status of each business approached to participate in the research (Complete, Refuse, Unable to Reach). This was updated daily.

After the first period of fieldwork, analysis was done on the recruitment data to determine if there were opportunities to improve the response rate. Business' first contact with the research was through the prenotification letter. It was in most cases delivered at least one day ahead of the scheduled survey visit. Results of Kruskal-Wallis Tests indicated there was a significant difference in the number of contacts and the participative status (complete, refuse or unable to reach) for the 228 businesses approached. The mean number of contacts made with a business was highest for those that completed, with a statistically significant difference found between the different response types (Chi-Square = 66.64 at DF 2, p = 0.000) with a mean rank of 150.95 for completed, 113.87 for those that refused, and 70.22 for those businesses that were unable to be reached.

The same test was used to assess if there was significant difference in the number of contacts amongst the three business types (Food Service n=140, Food and Health Stores n=50 and Fashion n=38). The Kruskal-Wallis Test showed a statistically significant difference between the different response types (Chi-Square = 14.90 at DF 2, p = 0.001) with a mean rank of 142.37 for Food and Health Stores, 120.14 for those that Fashion, and 103.01 for Food Service businesses. This suggests that despite the larger number of Food Service businesses that they were the ones most difficult to contact. To better understand what impact business type, prenotification type and number of contacts had on decision outcome a crosstabulation was done. These results are reported in Table 5-29.

Table 5-29: Relationship between businesses participation and business type in first phase of fieldwork (n=228)

Variable	Total	Completed n = 91	Refused n = 63	Unable to reach n = 74	Pearson Chi-square value	df	Phi
Business Type							
Food Service	140	54%	43%	87%#	32.558*	4	0.378
Food & Health Stores	50	28%#	35%#	4%			
Fashion	38	19%#	22%#	10%			
Prenotification Type							
In person	157	81%#	84%#	41%	41.112*	2	0.425
Under door	71	19%	16%	60%#			
Number of contacts							
Zero contacts	33	0%	0%	45%#	107.304*	6	0.686
One contact	62	17%	46%#	24%			
Two contacts	94	52%#	43%#	27%			
Three or more contacts	39	32%#	11%	4%			

Note: # indicates observation higher than expected count, * indicates significant at alpha level 0.000)

Table 5-29 shows that despite Food Service businesses accounting for the most completes (54 percent), they were also the business type that dominated the businesses unable to be reached (87 percent). Prenotification type (prenotification letter given in person or under the door) and number of contacts have however a higher effect on the business response. A higher than expected number of those unable to be reached received the prenotification under the door (60 percent). Forty-five percent of those unable to be reached had zero number of contacts, meaning that the only interaction they had with the research was the prenotification under the door. The Pearson Chi-Square shows significance of all factors, with number of contacts being the most important followed by notification type. The factor with the strongest relationship to businesses' final participation status is the number of contacts, with a Phi value of 0.686.

An alternative factor that was suspected to be having an influence was trading hours. During the fieldwork it had been observed that some Food Service businesses were only open at night, and some opened for a short period over lunch thereby making them more difficult to reach. There was also some difficulty experienced in reaching businesses at their preferred time. Many Food Service businesses volunteered a time between 2.30pm and 4.30pm, after their lunchtime trade.

Figure 5-8: Number of businesses approached and method of first contact (n=336)
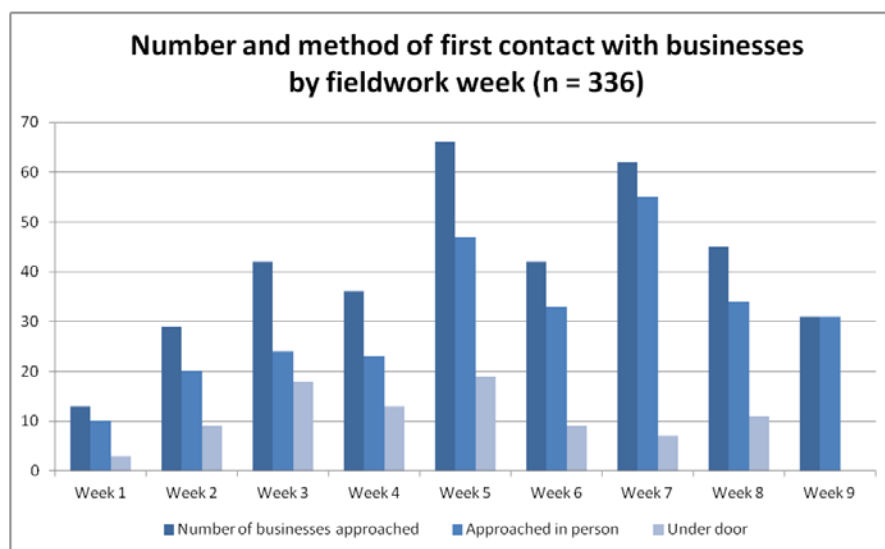
In the second stage of data collection, greater attention was given to the trading hours so that recruitment effort was not wasted on those only trading in the evening or weekends. During the first six weeks, 31 percent (71) of businesses received the prenotification under their door, with the remainder of prenotification letters given to the potential respondent or staff member (see Figure 5-8). In the second period, prenotification under the door dropped to 13 percent (18), which contributed to the percentage of 'unable to reach' also dropping from 32 percent to 21 percent in the two fieldwork periods. In these contacts the researcher briefly introduced the research and sought the name of the business owner or manager and their likely availability on the survey day. In total, one third of prenotification contacts resulted in a definitive decision. Forty-three declined to participate, 31 completed the survey immediately, and 49 set an appointment with the researcher.

Another cross tabulation was run on the Main Survey data (n=138) to observe the effect of changes in recruitment had on the improved response rates (see Table 5-30). Food and service businesses were still over-represented in the unable to reach, most likely because of their trading hours. As well as a reduction in prenotification under the door, the percentage of those unable to reach with zero contacts reduced from 45 to 20 percent.

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Table 5-30: Revised table focused on Main Survey results only

Variable	Total	Completed n = 65	Refused n = 43	Unable to reach n = 30	Pearson Chi-square value	df	Phi
Business Type							
Food Service	75	51%	49%	70%#	5.386	4	0.198
Food & Health Stores	42	29%	37%#	23%			
Fashion	21	20%#	14%	7%			
Prenotification Type							
In person	120	96%#	91%#	63%	19.362*	2	0.375
Under door	18	5%	9%	37%#			
Number of contacts							
Zero contacts	6	0%	0%	20%#	31.932*	6	0.481
One contact	66	37%	65%#	47%			
Two contacts	47	45%#	26%	23%			
Three or more contacts	19	19%#	9%	10%			

(Note: # indicates observation higher than expected count, * indicates significant at alpha level 0.000)

While the participative status by Business Type was no longer significant, the Prenotification Type and Number of Contacts remain statistically significant at alpha level < 0.001. There was a higher proportion of completes at one contact (from 17 percent to 37 percent) but there was still a more than expected number of completes occurring in two and three or more contacts. There was also a larger proportion of refusals occurring in the first contact – which helped to make the fieldwork time more efficient. A comparative analysis of Kruskall-Wallis Tests is shown in Table 5-31. The order of mean ranks remained the same, however the significance of the number of contacts to influence decision outcomes reduced.

Table 5-31: Comparing the Kruskall-Wallis results for number of contacts

Decision outcome		All N	All Mean Rank	Phase 1 (Pilot) Weeks 1-6 N	Phase 1 (Pilot) Weeks 1-6 Mean Rank	Phase 2 (Main) Weeks 7-9 N	Phase 2 (Main) Weeks 7-9 Mean Rank
Number of contacts made with business	Completed	156	230.38	91	150.95	65	81.05
	Refused	105	175.47	62	113.41	43	62.41
	Unable to reach	105	121.88	75	71.18	30	54.65
	Total	366		228		138	

Table 5-32: Comparing Chi-square results for number of contacts

| Test Statistics[a,b] | Number of contacts made with business | | |
	All (n=366)	Pilot (n=228)	Main (n=138)
Chi-Squared (χ^2)	74.638	66.641	12.851
df	2	2	2
Asymp. Sig.	.000	.000	.002

The online log was also used to capture standardised information about reasons why businesses did not want to participate. Figure 5-9 reports the frequencies of reasons from both phases of fieldwork. A distinction is made between occasions where the person declined outright and where they delayed the decision. More than one reason could be indicated. In both periods of fieldwork the main reasons relate to a lack of time available (44 percent) and the fact that in a large number of cases the owner or manager was not there (46 percent). The breakdown of reasons did not differ by gender or age.

Figure 5-9: Frequency in which reasons were given for not completing survey (n=235)
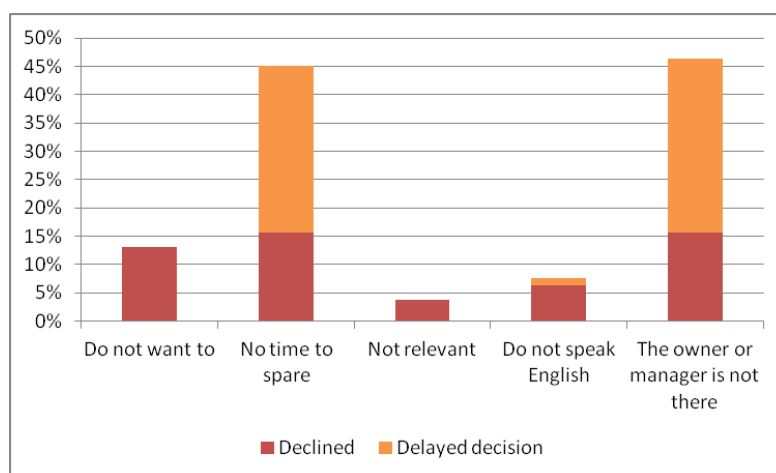
When businesses completed the survey, the online log was used to note the incidence of issues (see Figure 5-10). The most frequently observed issue was that the business respondent got distracted by shop keeping (38 percent). This had been expected and was part of the "selling points" for encouraging businesses to participate – a survey that can be done behind the counter and which allows businesses to continue to attend to their business. Some respondents chose to take 'time out' from their business to complete the survey. In most cases this was coupled with the respondent asking further questions about the research and sharing their thoughts about the topic and specifically changes to car parking – supporting the argument that these are salient issues to businesses.

Figure 5-10: Frequency of issues for those participating in the survey (n=159)
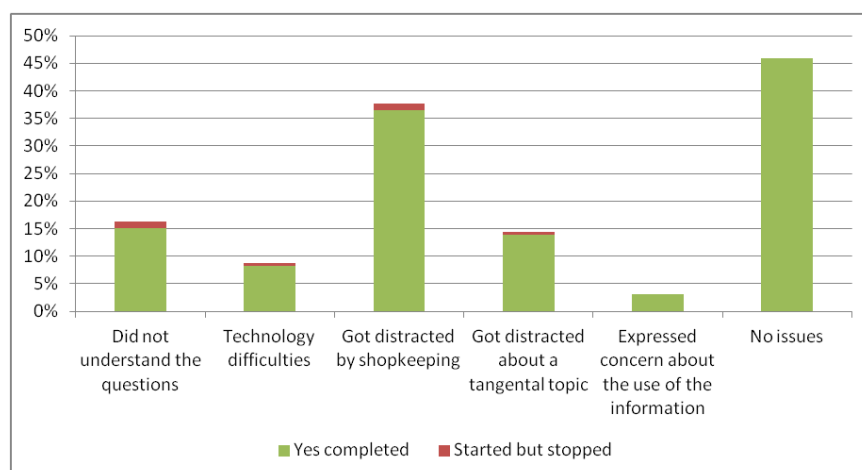
The high value of the iPad was also an advantage in the high completion rates (only four businesses discontinued the survey). Leaving the iPad and collecting it later, as is done with paper surveys, was not an option. Business distractions would normally be expected to result in respondents abandoning an online survey, however the respondents all returned to complete the survey after the distraction had been dealt with. Undoubtedly the presence of the researcher played a part – either as a reminder or a motivator to complete.[34]

In terms of survey cognition, 16 percent of respondents asked for clarification about the meaning of questions. The repetitive phrasing of the 14 items of the RFSS scale needed the most clarification. A standard explanation was provided to respondents and then the respondent continued with the survey.

Only eight percent of respondents experienced technological issues with the survey. Slowness of the Internet connection was the most common issue, followed by difficulties in adapting to the iPad touchpad screen – an issue for a minority of respondents. Failure of the 3G internet connection occurred once disrupting 5 hours of fieldwork in week 2 and requiring appointments to be rearranged. The user-friendliness of the iPad and familiarity with smart phone devices are likely to have also contributed to the low incidence of technological difficulties. Only three percent expressed concern about the use of the information, with most wanting confirmation that the research was not initiated by the LGA. The branding and

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[34] In Week 2, after one particularly disruptive instance, the screen saver on the iPad was reset at 15 minutes of inactivity. Only on one subsequent occasion did the researcher need to deactivate the screensaver by entering the password.

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participant information on the prenotification letter is likely to have alleviated the need for further clarification.

5.3 Conclusion

This chapter has focused on the design of the Town Centre Business Survey and the strategies adopted to engage business owners and managers to participate in the research. A central component in both design and operation of the survey research was the use of a WAPI survey approach allowed respondents to self-complete the survey on the internet-enabled tablet device provided by the researcher. This allowed the survey to be designed as an online survey with on-the-fly question routing and security of responses yet with a higher level of interaction with the researcher.

The Town Centre Business Survey gained a better than the average response rate for business surveys. In the first phase of fieldwork a 40 percent response rate was achieved. Monitoring of recruitment effort and outcomes allowed opportunities to be identified that could increase the response rate further. In the second phase, improvements on recruitment approach and use of fieldwork time increased the response rate to 47 percent.

Chapter 6   *Survey Results and Analysis*

This chapter reports on the results and analysis of the Town Centre Business Survey against the research hypotheses presented in Chapter 5. The data collected in the survey contributes to all three research questions, however the analysis of the data presented in this chapter focuses on the first two research questions. The analysis of the survey data for the third research question is presented in Chapter 7.

The chapter is organised in the following way. The first part focuses on the characteristics of the sampled population and the relative motility of town centres included in the study area. This includes reporting of data about the business goals, business resources and preference for goal-orientated strategies as measured by the Regulatory Focus Strategies Scale (RFSS).

The second part focuses on the analysis of positive and negative business perceptions about how the addition of sustainable transport options impacts their business (research question 1). The analysis is structured around two models of perceptions. The first model focuses on concerns about customer attractiveness, business competitiveness and town centre attractiveness and the expectation that such concerns will vary amongst businesses and different town centre environments. The second model assesses sensitivity to Promotion Focus concerns about business opportunity and Prevention Focus concerns about business security and tests if these vary by competency in goal attainment, as measured by Regulatory Fit.

The third part presents the analysis of actions that businesses take to grow and protect their business in light of changes to the accessibility options of their business street. The analysis splits the sample by sentiment to compare how businesses act in terms of the count of actions and type of actions, and specifically if their strategic approach varies by Regulatory Fit.

Colour is used extensively in this chapter to aid clarity of concepts and link the detailed data presented in tables to the accompanying graphs and charts. Appendices have been used to provide additional relevant detail.

6.1 Analysis of survey respondents

The Town Centre Business Survey was completed by 156 participants. The majority (92 percent) of respondents were from small businesses, and 104 of these small business respondents identified themselves as the owner (see shaded area in Table 6-1).

Table 6-1: The demographic analysis of Owners and Managers in the survey (n=156)

Demographic characteristics	Owner		Manager		Subtotal	
	Count	%	Count	%	Count	%
Gender						
Male	69	44%	22	14%	91	58%
Female	40	26%	25	16%	65	42%
Age						
Less than 30 years	27	17%	21	13%	48	31%
31 - 50 years	72	46%	22	14%	94	60%
50 years and older	10	6%	4	3%	14	9%
Business size						
No employees	18	12%	-	0%	18	12%
1 - 4 people	54	35%	15	10%	69	44%
5 - 19 people	32	21%	24	15%	56	36%
20 or more people	5	3%	8	5%	13	8%
Business type						
Food and Health Stores	27	17%	17	11%	44	28%
Food Service	63	40%	20	13%	83	53%
Fashion	19	12%	10	6%	29	19%
Local Government Area						
City of Sydney	49	31%	20	13%	69	44%
Leichhardt	27	17%	15	10%	42	27%
Marrickville	33	21%	12	8%	45	29%
Total	**109**	**70%**	**47**	**30%**	**156**	**100%**

The sample was generally representative of the sampling frame though representativeness of businesses from Leichhardt and Marrickville Council areas was still higher than that of the City of Sydney. Fashion businesses were the most under-represented business type,

especially in the City of Sydney. Table 6-2 shows the sample of respondents stratified by business type and LGA and data weights for each stratum are presented in Table 6-3.[35]

Table 6-2: Breakdown of respondents by Business Type and LGA

	Leichhardt		Marrickville		Sydney		Subtotal	
Business Type	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
Food and Health Stores	11	7.1%	16	10.3%	17	10.9%	44	28.2%
Food Service	22	14.1%	23	14.7%	38	24.4%	83	53.2%
Fashion	9	5.8%	6	3.8 %	14	9.0%	29	18.6%
Subtotal	**42**	**26.9%**	**45**	**28.8%**	**69**	**44.2%**	**156**	**100%**

Table 6-3: Data weights for each stratum of the sample by Business Type and LGA

Business Type	**Leichhardt**	**Marrickville**	**Sydney**	**Subtotal**
Food and Health Stores	0.68	0.77	1.06	0.86
Food Service	0.70	0.64	1.32	0.97
Fashion	0.79	1.31	1.65	1.31
Subtotal	**0.71**	**0.77**	**1.32**	**1.00**

6.1.1 Current business goals and business resources

Three-quarters of respondents chose the Prevention Focused goal 'to strengthen the business' as the most important to their business, while the remaining quarter chose the Promotion Focused goal 'to grow the business' (n=39). Respondents' assessment of the financial well-being of the business as important corresponds with this preference for consolidating the business. The respondents who chose to 'strengthen the business' consistently scored a lower level of satisfaction with how the business was going compared to those who chose 'to grow the business'. The sample size reduced to 136 respondents for the second financial well-being question as 20 businesses had been in operation for less than one year. Not all businesses were operating at the time of the global financial crisis (GFC), but of those who were, the difference between financial well-being by choice of business goal was significant (ANOVA, F=4.123 p=0.045).

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[35] The sampling frame excludes businesses within enclosed shopping malls and businesses located in the central business district of Sydney.

Table 6-4: Comparison of financial well-being by choice of business goal

Question Item	Business Goal	N	Mean	Std. Deviation	Std. Error Mean	F (p-value)
Financially, how is the business going compared to last month?	To grow the business	39	3.21	0.92	0.15	
	To strengthen the business	117	3.12	0.77	0.07	0.327 (.564)
	Total	**156**	**3.14**	**.807**	**.065**	
… to this time last year?	To grow the business	33	3.06	1.09	0.19	
	To strengthen the business	103	2.92	1.08	0.11	0.407 (.524)
	Total	**136**	**2.96**	**1.081**	**.093**	
… to before the Global Financial Crisis (GFC) in 2008?	To grow the business	29	3.07	1.03	0.19	
	To strengthen the business	81	2.58	1.14	0.13	4.123 (.045)
	Total	**110**	**2.71**	**1.128**	**.108**	

Note: A 5-point scale was used where 1 was 'much worse', 3 'about the same', and 5 'much better'.

Amongst the sampled population, financial well-being is evidently a function of business size (see Figure 6-1). The smaller the business the worse their perceived financial assessment. Assessments varied in a statistically significant way by business size for the previous month (ANOVA, F=5.732 p=.001) and the previous year (ANOVA, F=5.673 p=.001).

Figure 6-1: Comparison of mean scores about financial well-being by business size
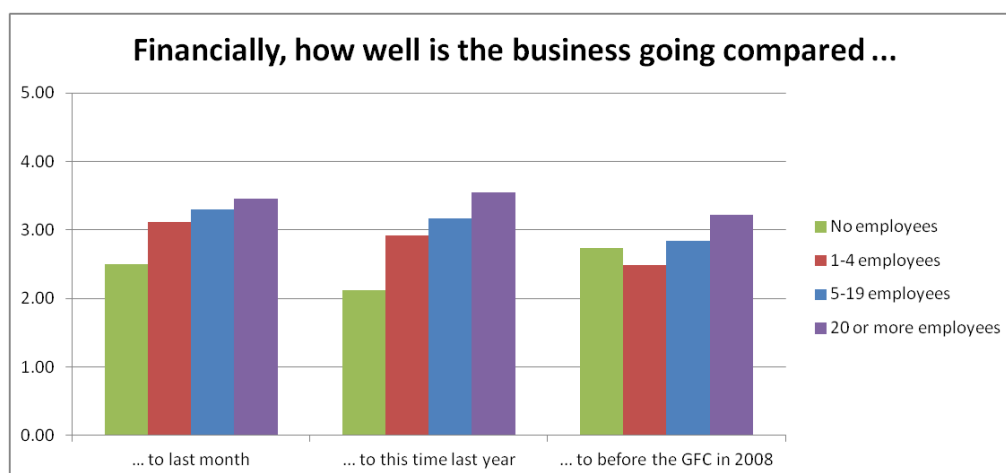
Note: A 5-point scale was used where 1 was 'much worse', 3 'about the same', and 5 'much better'.

Most businesses indicated they had knowledge of their customers but the three types of knowledge most relevant to their assumptions about the usefulness of sustainable transport

improvements to customers was comparatively low (see Table 6-5). Only 45.5 percent indicated they had knowledge about how customers "travel to the town centre" (Knowledge 2) and 54.5 percent knew "where they travel from" (Knowledge 6). Knowledge 2 and Knowledge 6 were significantly correlated (Pearson correlation= 0.448 and p<0.01 two-tailed test). Additionally the two variables were also significantly correlated with knowledge about other pull factors measured in Knowledge 3 and Knowledge 4 that may keep the town centre and the business attractive, despite changes to the access. These correlations are presented in Table 6-6. Business knowledge about customers did not vary amongst owners and managers, amongst men and women, or amongst LGAs in a statistically significant way.

Table 6-5: Percentage of respondents with businesses knowledge about customers (n=156)

Knowledge Type		Business Type (%)			
		Food stores and health	Food Service	Fashion	All businesses
1	I know some customers by name	90.9	94.0	86.2	91.7
2	I know how they travel to the town centre	50.0	48.2	31.0	45.5
3	I know other businesses they are likely to shop at	68.2	37.3	65.5	51.3
4	I know what they like about my business	84.1	83.1	96.6	85.9
5	I know how to contact them	52.3	38.6	51.7	44.9
6	I know where they travel from	54.5	51.8	62.1	54.5

Table 6-6: Correlation matrix of business knowledge of their customers (n=156)

Knowledge Type		1	2	3	4	5	6
1	I know some customers by name	1					
2	I know how they travel to the town centre	0.089 (0.268)	1				
3	I know other businesses they are likely to shop at	0.124 (0.124)	0.298** (0.000)	1			
4	I know what they like about my business	0.011 (0.891)	0.185* (0.020)	.231** (0.004)	1		
5	I know how to contact them	0.179* (0.026)	0.159* (0.048)	0.389** (0.000)	0.217** (0.006)	1	
6	I know where they travel from	0.144 (0.074)	0.448** (0.000)	0.371** (0.000)	0.258** (0.000)	0.359** (0.000)	1

* Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level.

Between parentheses is two-sided level of significance, expressed as p-values.

6.1.2 Analysis of the study area and town centre motility

Two positively correlated measures of town centre motility - barriers to car use (TCBarriers) and opportunities for sustainable travel (TCOpportunity) - were found to vary across the study area based on distance from the city centre, and by LGA.[36] Table 6-7 presents the score for each of the centres organised by LGA.

Table 6-7: Comparison of TCBarriers and TCOpportunity

LGA	Town Centre	Centre Type	Approx. distance from Sydney GPO	Barriers to car use	Sustainable transport opportunities
			Km	Mean	Mean
City of Sydney	Pyrmont	Village	1.2	0.469	0.476
	Darlinghurst	Village	1.6	0.497	0.476
	Potts Point	Village	1.9	0.497	0.614
	Glebe	Village	2.2	0.565	0.524
	Surry Hills	Town Centre	2.5	0.593	0.556
	Redfern	Village	2.6	0.864	0.587
	Newtown	Town Centre	3.9	0.619	0.630
	Erskineville	Village	4.0	0.401	0.481
	Average			**0.562**	**0.550**
Leichhardt	Balmain	Town Centre	2.8	0.619	0.370
	Rozelle	Town Centre	3.4	0.565	0.418
	Annandale	Village	4.4	0.401	0.344
	Leichhardt	Town Centre	5.0	0.479	0.407
	Average			**0.508**	**0.389**
Marrickville	Newtown	Town Centre	4.1	0.546	0.580
	Stanmore	Village	4.8	0.347	0.481
	Enmore	Town Centre	4.9	0.347	0.556
	Petersham	Village	5.8	0.537	0.481
	Marrickville	Town Centre	6.7	0.444	0.529
	Dulwich Hill	Village	7.0	0.388	0.481
	Average			**0.442**	**0.523**
Study Area	**All Centres**		**Average**	**0.499**	**0.513**

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[36] TCBarriers and TCOpportunity are both scales from zero to 1.0, and both are orientated around the sustainable transport policy goal. A value of 1 on TCBarriers indicates the local suburban town centre is very conducive to discouraging car dependency. A value of 1 on TCOpportunity indicates the centre is very conducive to encouraging the take-up of sustainable transport options. More information about the scoring criteria is presented in Chapter 3, Table 3-3 and Table 3-4.

The correlation between TCBarriers and TCOpportunity was positive but low (Pearson correlation = 0.170 p=0.034 two-tailed test). TCBarriers was negatively correlated (Pearson correlation = -0.455 p<0.000 two-tailed test) with distance from the city centre of Sydney. That is, centres further away from the Sydney central business district (CBD) generally experienced less barriers to car use. Distance from the city centre was also negatively correlated with TCOpportunity, but not so strongly (Pearson correlation = -0.153 p=0.057 two-tailed test).

LGA was found to be significantly different, statistically, for both TCBarriers (ANOVA, F=21.448 p<0.000) and TCOpportunity (ANOVA, F=56.285 p<0.000). The significance of LGA on these two measures of Town Centre Motility can be understood as a product of the spatial proximity to the city centre but also the different sustainable transport policies that LGAs pursue in response to different topographies and mobility inheritances.[37] Car parking meters have been a long standing policy measure for managing on-street car parking demand in the City of Sydney and Leichhardt Council. Marrickville Council begun using on-street parking meters on King St, Newtown in 2012, despite parking meters being present for many years across the road in the area controlled by City of Sydney.

Size of town centres was not a significant factor in the TCOpportunity score. The mean score for Town Centres ($\bar{x}$=0.501 SD=0.121) was very similar to Villages ($\bar{x}$=0.495 SD=0.074). TCBarriers in Villages ($\bar{x}$=0.494 S.D=0.116) was lower than in Town Centres ($\bar{x}$=0.526 S.D=0.101) but not significantly so (ANOVA, F= F=3.231 p=0.074). Business knowledge about how customers travel and incentives for travel did vary by town centre environment (see Figure 6-2 and Table 6-8). Businesses in centres with high sustainable travel opportunities and high barriers to car use (Group 1) had a marginally higher level of knowledge about how customers travelled (Knowledge 2) and were less likely to indicate they knew other businesses customers shopped at (Knowledge 3). Seventy-five percent of businesses in town centres with low sustainable travel opportunities and high barriers to car

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[37] For example, the geography of the Balmain peninsula has been a barrier to the extension of the suburban railway network in the Leichhardt LGA. The only heavy railway network though the Leichhardt LGA has been a goods line linking industrial sites with port activities but bypassing the town centres. Sections have since been converted to a light rail line passing through Pyrmont and Glebe – though the route is circuitous making journey time very slow. The line is currently being extended and will pass close to some town centres in Leichhardt, Marrickville and Ashfield LGAs.

use (Group 3) indicated they knew where customers travelled from (Knowledge 6), which was 21 percentage points higher than average.

Figure 6-2: Business knowledge about how and where customers travel from (n=156)
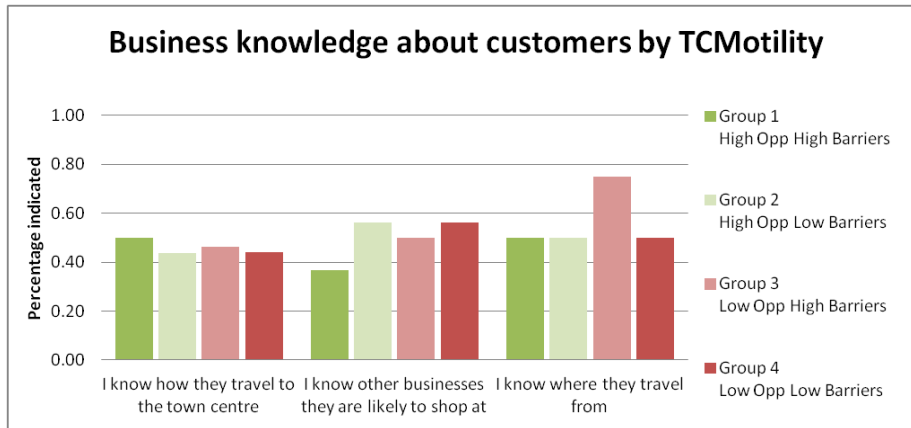
Table 6-8: Percentage of businesses with knowledge about customers by TCMotility (n=156)

Knowledge Type		TCMotility (%)				
		Group 1 High Opp High Barriers	Group 2 High Opp Low Barriers	Group 3 Low Opp High Barriers	Group 4 Low Opp Low Barriers	All businesses
1	I know some customers by name	86.7	96.9	85.7	93.9	91.7
2	I know how they travel to the town centre	50.0	43.8	46.4	43.9	45.5
3	I know other businesses they are likely to shop at	36.7	56.3	50.0	56.1	51.3
4	I know what they like about my business	80.0	84.4	96.4	84.8	85.9
5	I know how to contact them	43.3	43.8	50.0	43.9	44.9
6	I know where they travel from	50.0	50.0	75.0	50.0	54.5

6.1.3 RFSS and the endorsement of goal strategies

Analysis of respondent scoring on the RFSS items confirms that the scale is reliably measuring endorsement of Promotion Focused eager strategies (PMFoc) and endorsement of Prevention Focused vigilant strategies (PVFoc). The difference between the mean scores was significant (t=4.248, p<0.001) with the PMFoc ($\bar{x}$=3.80 SD=0.50) attracting a higher level of endorsement than the PVFoc ($\bar{x}$=3.54 SD=0.57).

The mean scores on the two Regulatory Focus scales are shown in Table 6-9. Individual mean scores of the RFSS items are shown in Table 6-10. PMFoc and PVFoc were both negatively skewed but both distributions fall within two standard deviations of the standard error for skewness and kurtosis, normality is confirmed as not being seriously violated.

Table 6-9: Descriptive statistics for PVFoc and PMFoc (n=156)

Regulatory Focus	N	Mean	S.D	s.e of mean	Range	Skewness (s.e)	Kurtosis (s.e)
PMFoc	156	3.80	0.50	0.04	2.38	-0.13 (0.19)	-0.28 (0.39)
PVFoc	156	3.54	0.57	0.05	2.83	-0.21 (0.19)	-0.35(0.39)

The RFSS is a 5 point scale where 1 indicates 'strongly disagree' and 5 indicates 'strongly agree'.

Table 6-10: Respondent scores on RFSS items (n=156)

Item	Item Statement	Regulatory Focus	Mean	Std. Error of Mean	Std. Dev
RFSS1	Being cautious is the best way to avoid failure.	Prevention	3.06	0.082	1.024
RFSS2	If you keep worrying about mistakes, you will never achieve anything.	Promotion	3.90	0.078	0.978
RFSS3	To avoid failure, one has to be careful.	Prevention	3.86	0.072	0.905
RFSS5	To achieve something, you need to be optimistic.	Promotion	4.23	0.052	0.651
RFSS6	You have to take risks if you want to avoid failing.	Promotion	3.43	0.080	1.004
RFSS7	To achieve something, it is most important to know all the potential obstacles.	Prevention	3.97	0.062	0.774
RFSS9	To achieve something, one must be cautious.	Prevention	3.35	0.077	0.962
RFSS10	To avoid failure, you have to be enthusiastic.	Promotion	4.08	0.071	0.884
RFSS11	Taking risks is essential for success.	Promotion	3.93	0.070	0.873
RFSS12	If you want to avoid failing, the worst thing you can do is to think about making mistakes.	Promotion	3.38	0.082	1.018
RFSS13	To achieve something, one must try all possible ways of achieving it.	Promotion	4.03	0.072	0.901
RFSS14	The worst thing you can do when trying to achieve a goal is to worry about making mistakes.	Promotion	3.41	0.081	1.015
RFSS15	Being cautious is the best policy for success.	Prevention	3.04	0.082	1.022
RFSS16	To avoid failure, it is important to keep in mind all the potential obstacles that might get in your way.	Prevention	3.97	0.055	0.686

The RFSS is a 5 point scale where 1 indicates 'strongly disagree' and 5 indicates 'strongly agree'.

A reliability analysis was run on both the dimensions of Regulatory Focus (see Table 6-11), which included an assessment of item removal. The reliability of scales can be sensitive to the number of items as well as the number of dimensions, the level of precision required for the context, and the intercorrelation of items to the dimensions of the scale (Cortina, 1993). The Prevention Focus scale had a higher internal consistency than the Promotion Focus scale (Cronbach's $\alpha = 0.698$ compared to $\alpha = 0.657$). If scale items RFSS7 and RFSS16 were removed the internal consistency of the Prevention Focus scale was improved to ($\alpha = 0.764$), which is above the generally accepted level of $\alpha \geq 0.7$. No items were identified on the Promotion Focus scale that would improve the Cronbach's alpha.

Table 6-11: Reliability analysis of RFSS sub-scales (summed scores)

RFSS sub-scales	Mean	Variance	Std. Deviation	N of Items	Cronbach's Alpha
Promotion Focus strategy endorsement	30.38	16.017	4.002	8	0.657
Prevention Focus strategy endorsement	21.24	11.730	3.425	6	0.698
	13.30	8.986	2.998	4	0.764

To determine if reducing the number of items on the Prevention Focus scale was warranted, a Principal Component Analysis (PCA) was run on the correlation matrix for the 14 items of the RFSS scale *(df = 91)* to analyse the effectiveness of the scale in measuring vigilance and eagerness strategy endorsement – as undertaken by Ouschan *et al.* (2007). This was then followed by a Confirmatory Factor Analysis (CFA) to test plausible alternative models (Jackson, Gillaspy and Purc-Stephenson, 2009). Findings were compared against those reported by Ouschan *et al.* (2007). The results confirmed that the two scales were orthogonal and that respondents were reliably interpreting the scale items as intended. There was therefore no requirement to remove items RFSS7 and RFSS16. Full details of the PCA and CFA are reported in Appendix 3.

6.1.4 Observing differences amongst different respondent groups

Tests were conducted to determine if endorsement of Promotion Focus eager strategies and Prevention Focused vigilant strategies differed on key variables used to define the survey target population (business ownership and business size) and variables used to stratify the

sample (business type and LGA). Gender and age were also considered.[38] The descriptive data and difference between groups is reported in Table 6-12.

Table 6-12: Comparing means for Regulatory Focus endorsement by key explanatory variables

	N	Promotion Focus (PMFoc)				Prevention Focus (PVFoc)			
		Mean	Std. Dev	Std. Error Mean	F$_{calc.}$ (p-value)	Mean	Std. Dev	Std. Error Mean	F$_{calc.}$ (p-value)
Gender									
Males	91	**3.73**	**0.52**	0.05	**3.450 (0.065)**	**3.54**	**0.58**	0.06	0.013 (0.909)
Females	65	**3.88**	0.46	**0.06**		**3.53**	0.56	0.07	
Age									
Less than 30	48	3.68	0.49	0.07	**2.095 (0.127)**	3.56	0.07	0.07	0.123 (0.884)
31-50	94	3.83	0.48	0.05		3.52	0.59	0.06	
Over 50	14	3.95	0.60	0.16		3.60	0.74	0.20	
Business Position									
Owner	109	3.83	0.51	0.05	1.580 (0.211)	3.49	0.58	0.08	0.518 (0.473)
Manager	47	3.72	0.47	0.07		3.56	0.57	0.05	
Business Type									
Food & Health Stores	44	3.82	0.45	0.07	0.687 (0.504)	3.36	0.55	0.08	**3.767 (0.025)**
Food Service	83	3.76	0.56	0.06		3.64	0.56	0.06	
Fashion	29	3.88	0.38	0.07		3.52	0.59	0.11	
Business Size									
No employees	18	3.87	0.46	0.11	0.225 (0.879)	3.30	0.49	0.11	**2.677 (0.049)**
1 - 4 people	69	3.81	0.52	0.06		3.67	0.57	0.07	
5 - 19 people	56	3.78	0.51	0.07		3.48	0.55	0.07	
20 or more people	13	3.73	0.42	0.12		3.45	0.64	0.18	
LGA									
City of Sydney	69	3.80	0.50	0.06	0.015 (0.985)	3.50	0.58	0.07	.372 (0.690)
Leichhardt	42	3.79	0.52	0.08		3.60	0.57	0.09	
Marrickville	45	3.80	0.50	0.07		3.54	0.57	0.08	

The mean PMFoc was consistently higher than the mean PVFoc indicating that there was generally a greater endorsement of eager strategies than vigilant strategies in the sampled

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[38] It is common practice to examine psychometric scales by gender – even when no differences are expected. Age was examined to confirm generational differences were not a factor affecting preferred goal strategies.

population. There was no difference observed in the means between the three LGAs or between business owners and managers. The mean level of PVFoc endorsement was found to significantly differ between types of businesses (ANOVA, F= 3.767, p=0.025) and the size of the business as defined by number of employees (ANOVA, F= 2.677 p=0.049) (see box plots at Figure 6-3). Food & Health Stores indicated less preference for vigilant strategies than Food Service and Fashion businesses. Businesses with 1-4 employees had the highest preference for vigilant strategies. With respect to Promotion Focus, no statistically significant difference was observed between respondents by any of the demographic explanatory variables (gender, age group, business position, business type, business size, and LGA).[39] No extreme scores were found to affect the means.

Figure 6-3: Box plots comparisons of Regulatory Focus scores by BizType and BizSize
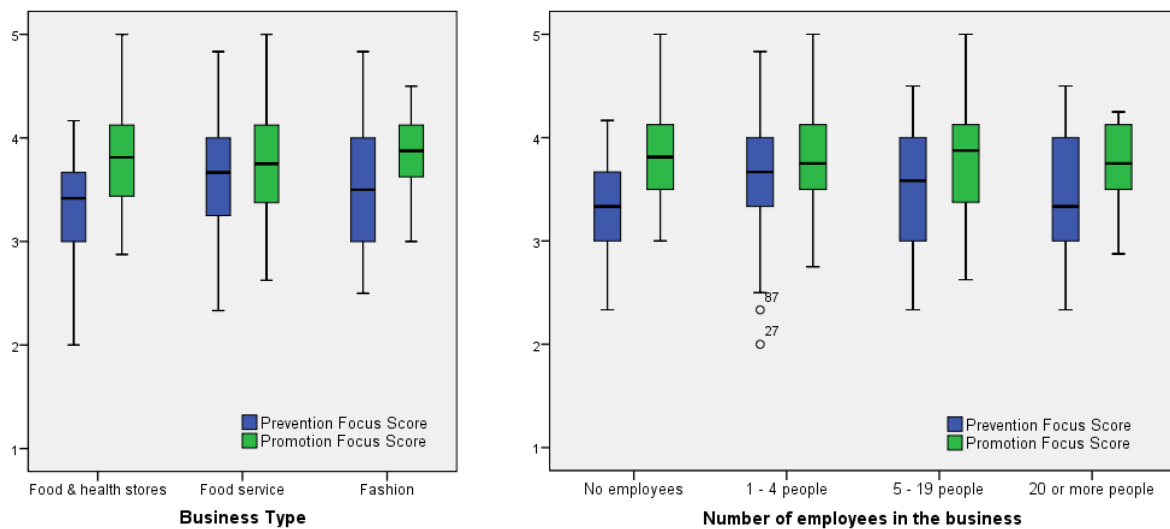
The Regulatory Focus of a respondent's choice of primary business goal (BizGoal) did not strongly align to their preferred Regulatory Focus. Although there was generally greater endorsement of Promotion Focused eager strategies, as reported in Section 0, only 25 percent of the sample chose the Promotion Focus goal 'to grow the business'. The mean PVFoc score was higher amongst those who chose the Prevention Focus goal 'to strengthen the business' ($\bar{x}$=3.58, S.D=0.57) compared to those who chose the Promotion Focus goal ($\bar{x}$=3.43, S.D=0.58) but the difference was not statistically significant (ANOVA, F=2.021 p=0.157).

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[39] The use of a randomly sampled population mitigates concerns about the unequal representation and non-normality of the scales by gender.

Table 6-13: Comparing means for Regulatory Focus endorsement by choice of BizGoal

	N	Promotion Focus (PMFoc)				Prevention Focus (PVFoc)			
		Mean	Std. Dev.	Std. Error Mean	$F_{calc.}$ (p-value)	Mean	Std. Dev.	Std. Error Mean	$F_{calc.}$ (p-value)
Business Goal									
To grow the business	39	3.81	0.53	0.08	0.058 (0.809)	3.43	0.58	0.09	2.021 (0.157)
To strengthen the business	117	3.79	0.49	0.05		3.58	0.57	0.05	

6.1.5 Allocation of respondents to type of Regulatory Fit

Scores on PMFoc and PVFoc combined with choice of business goal were used to categorize respondents Regulatory Fit in Event 1, in accordance to the method described in Chapter 5 (Section 5.1.3). Most respondents indicated an endorsement of Regulatory Focus strategies, that is, they scored more than three on at least one scale (see Table 6-14).

Table 6-14: The sample (n=156) categorized by endorsement on each Regulatory Focus scale

Promotion Focus endorsement		Prevention Focus endorsement	
PMFoc score < or = 3	PMFoc score > 3	PVFoc score < or = 3	PVFoc score > 3
14 (9.0%)	142 (91.0%)	36 (23.1%)	120 (76.9%)

Although 91 percent of respondents endorsed Promotion Focused strategies only 22 percent could be classed as having a Good Promotion Focus Fit in Event 1 because only 25 percent of respondents chose the Promotion Focus goal 'to grow the business'. In Event 2 and Event 3 the randomly allocated conditions resulted in varying proportions of respondents categorised as Good and Poor Fit, as shown in Table 6-15.

Table 6-15: Number and percentage of respondents categorised by Regulatory Fit for the three events

Scenario Event	Promotion Focus Fit		Prevention Focus Fit	
	Poor Fit	Good Fit	Poor Fit	Good Fit
Event 1	121 (77.6%)	35 (22.4%)	64 (41.0%)	92 (59.0%)
Event 2	7 (8.9%)	72 (91.1%)	17 (22.7%)	58 (77.3%)
Event 3	38 (46.3%)	44 (53.7%)	44 (59.1%)	30 (40.5%)

As with the RFSS scores, it was observed that business type had no significant effect in the distribution of respondents by Regulatory Fit in Event 1. The number of respondents in each

sub-category were different but the proportional split was similar for all business types (see Table 6-16).

Table 6-16: Allocation to Good Fit and Poor Fit conditions by business type (Event 1)

Business Type	PMOpportunityConcerns		PVSecurityConcerns	
	PoorFit	**GoodFit**	**PoorFit**	**GoodFit**
Food & Health Stores	35 (80%)	9 (20%)	18 (41%)	26 (59%)
Food Service	65(78%)	18 (22%)	33 (40%)	50 (60%)
Fashion	21(72%)	8 (28%)	13 (45%)	16 (55%)
SubTotal	**121 (78%)**	**35 (22%)**	**64 (41%)**	**92 (59%)**
Total	**156**		**156**	

6.2 Perceived impacts of access changes on business

The Town Centre Business Survey found businesses perceived there to be favourable impacts to their business if there was better public transport, cycling and pedestrian access in their business location. Six 5-point Likert scale items, labelled *definitely not* (-1) to *definitely yes* (1) were used to assess respondent's anticipated impact of how additional sustainable mobility access would affect their business's customer attraction (CA), business competiveness (BC) and town centre attractiveness (TCA).

There was little statistical difference in how respondents' perceived CA and TCA impacts to their business (see Table 6-17). A pairwise comparison identified the mean scores were similar (t-score 0.719, p=0.473 2-tailed test), and they were significantly correlated (Pearson's r(156)=0.539 p<0.001). CA and TCA were therefore combined additively into a new dependent composite variable (CATCA). BC remained distinct from CATCA (t-score 18.201, p<0.001 2-tailed test), and not significantly correlated (Pearson's r(156) =0.150, p=0.063). Businesses perceived BC to be a more complex measure with recognition that increases to competitive advantage was likely to result in an increased number of competitors.

Table 6-17: Respondents perception of added access impacting business on a scale of -1 to 1

Business Impacts	N	Mean	Std. Deviation	Std. Error Mean
Customer Attraction (CA)	156	0.518	0.390	0.032
Business Competitiveness (BC)	156	0.045	0.224	0.018
Town Centre Attractiveness (TCA)	156	0.497	0.368	0.029
CATCA (combining CA & TCA)	156	0.510	0.334	0.027

To conduct a comparative analysis on how businesses with positive sentiment of impacts differ to those with a more negative sentiment of impacts, the variables CATCA and BC were used to split the sample. Group membership in the positive sentiment group was determined by a score above 0 on both BC and CATCA. All others were allocated to the negative sentiment group. The variable *SplitBySentiment* therefore resulted in two unevenly sized groups: 43 with a positive sentiment and 113 with a negative sentiment. The mean scores for BC and CATCA are presented in Table 6-18.

Table 6-18: Comparing perceived impact by group membership (n=156)

Businesses Split By Sentiment	Perceived business impact of additional accessibility	N	Mean	Std. Deviation	Std. Error Mean
Sentiment positive	BC	43	0.33	0.150	0.023
	CATCA		0.63	0.279	0.043
Sentiment negative	BC	113	-0.06	0.140	0.013
	CATCA		0.46	0.343	0.032

Details of the analysis of survey responses against the individual six items is presented in Appendix 5. In a few cases business responses to the six individual items varied significantly by gender, LGA, town centre type or business type. BC and CATCA did not vary in a statistically significant way on other variables such as business size, and business ownership, even when the sample was split by sentiment. Only centre type was found to be significant amongst the positive sentiment group's assessment of changes to business competitiveness (ANOVA F=05.316, p=0.026) with respondents located in villages ($\bar{x}$=0.374 SD=0.185) viewing the change more positively than those in town centres ($\bar{x}$=0.274 SD=0.075).

6.2.1 Effect of town centre motility on perceptions of impacts

The way in which the perceptions of changes to CATCA and BC varied in town centres with different existing levels of town centre motility (TCMotility) was not in line with the hypotheses. Town centres with limited sustainable transport options were not consistently more appreciative of the potential benefits to customer attraction and town centre attractiveness (as measured by CATCA). Additionally, town centres with lower barriers to car use did not show a predilection to view business competitiveness differently to town centres with already high barriers to car use.

This study categorises town centres on two dimensions of town centre motility: the barriers to car use (TCBarriers), and the opportunities for sustainable travel (TCOpportunities) (see Table 3-16). The scores given to town centres of sampled businesses are reported in Section 6.1.2. The mean score on TCBarriers ($\bar{x}$=0.513) and TCOpportunity ($\bar{x}$=0.499) was used to create the four groups. This resulted in the first three TCMotility groups being of similar size and the fourth being double the size (see Table 6-19), These four groups are compared to test the hypothesis that existing TCBarriers and TCOpportunities have an influence on respondent's perception of impacts CATCA and BC when mobility options are added.

There was a larger number of negative sentiment businesses in Group 4, town centres with low sustainable travel opportunities and low barriers to car use (n=47). A crosstabs and Chi-square test however confirmed that the proportions in each group did not differ statistically significantly from each other at the .05 level of significance.

Table 6-19: Number of businesses split by sentiment in four groups of town centres

Businesses Split By Sentiment		Group 1 High opportunities high barriers (n=30)	Group 2 High opportunities low barriers (n=32)	Group 3 Low opportunities high barriers (n=28)	Group 4 Low opportunities low barriers (n=66)
Sentiment positive (n=43)	Count	8	10	6	19
	% within	18.6%	23.3%	14.0%	44.2%
	% total	5.1%	6.4%	3.8%	12.2%
Sentiment negative (n=113)	Count	22	22	22	47
	% within	19.5%	19.5%	19.5%	41.6%
	% total	14.1%	14.1%	14.1%	30.1%

Research expectations presented in Table 3-2 focused on the heightened sensitivity of businesses in centres to the potential benefits of added sustainable mobility options based on their current TCOpportunity and TCBarriers. Those located in centres with low sustainable travel options (Groups 3 and 4) are expected to be sensitive to the additional attractiveness access offers their business, whilst Groups 2 and 4 who have low barriers to car use are likely to be more sensitive to the negative changes to business competitiveness (BC). The hypotheses in Table 6-20 are used to ascertain if the data supports these expectations.

Table 6-20: Hypotheses for assessing influence of Town Centre Motility on sentiment

	Business perception of impact from added access options	
	BC	
	Positive Sentiment Group $(\mu > 0)$	**Negative Sentiment Group** $(\mu \le 0)$
H_0:	$\mu Group1 = \mu Group2 = \mu Group3 = \mu Group4$	
H_1:	μ Group1, μ Group3 $> \mu$ Group2 , μ Group4	
H_2:		μ Group1, μ Group3 $> \mu$ Group2 , μ Group4
	CATCA	
	Positive Sentiment Group $(\mu > 0)$	**Negative Sentiment Group** $(\mu \le 0)$
H_0:	$\mu Group1 = \mu Group2 = \mu Group3 = \mu Group4$	
H_1:	μ Group3, μ Group4 $> \mu$ Group1 , μ Group2	
H_2:		μ Group3, μ Group4 $> \mu$ Group1 , μ Group2

The data from the Town Centre Business Survey is presented in the Table 6-21, and illustrated in Figure 6-4. All businesses perceived CATCA to be positively impacted by the addition of access, with the negative sentiment group being less but still surprisingly optimistic ($\bar{x}$=0.462, S.D=0.343). Sentiment about BC was consistently lower than sentiment for CATCA in all cases with the largest difference observed by the splitting of the sample into positive and negative sentiment groups. The negative sentiment group on all four categories of centres perceived the changes to access as having close to no impact on business competitiveness ($\bar{x}$= -0.062, S.D=0.140).

Table 6-21: Mean sentiment scores for four Town Centre groups

Businesses Split By Sentiment		Town Centre Motility				All Sample
		Group 1 High opportunities high barriers	Group 2 High opportunities low barriers	Group 3 Low opportunities high barriers	Group 4 Low opportunities low barriers	
Sentiment Positive		**n=8**	**n=10**	**n=6**	**n=19**	**n=43**
BC	Mean	.281	.300	.292	.368	.326
	S.D	.088	.105	.102	.193	.150
CATCA	Mean	.641	.550	.563	.697	.634
	S.D	.279	.222	.360	.284	.343
Sentiment Negative		**n=22**	**n=22**	**n=22**	**n=47**	**n=113**
BC	Mean	-.068	-.057	-.068	-.059	-.062
	S.D	.158	.107	.158	.140	.140
CATCA	Mean	.449	.591	.375	.449	.462
	S.D	.379	.325	.339	.328	.343
All Sample		**n=30**	**n=32**	**n=28**	**n=66**	**n=156**
BC	Mean	.025	.055	.009	.064	.045
	S.D	.211	.198	.210	.249	.224
CATCA	Mean	.500	.578	.415	.521	.510
	S.D	.361	.294	.345	.334	.334

Figure 6-4: Sentiment of businesses compared BC and CATCA by Town Centre Motility
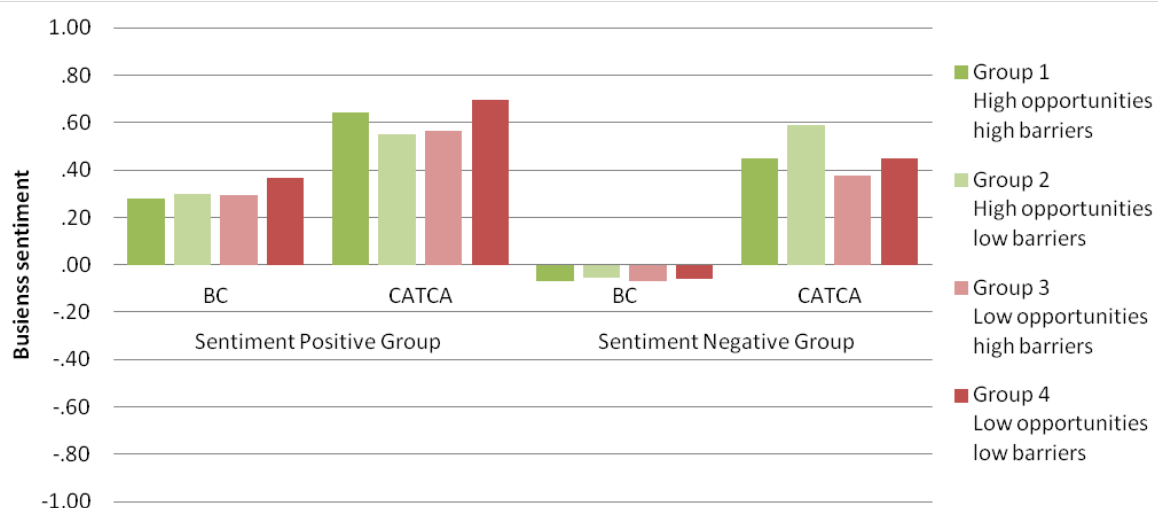
Contrary to expectation, amongst the businesses having a positive sentiment, Group 4 was the most optimistic about the benefits to business competitiveness ($\bar{x}$=0.368, S.D=0.193) and

benefits to customer and town centre attractiveness ($\bar{x}$=0.697, S.D=0.2843). In the negative sentiment group, Group 2 was the most optimistic about benefits to CATCA ($\bar{x}$=0.591, S.D=0.3258) and Group 3 the least optimistic ($\bar{x}$=0.375, S.D=0.339).

Despite these apparent differences, categorising town centres by opportunity for sustainable travel and barriers to car use had little power in accounting for differences in how businesses perceived goal impacts of BC and CATCA being affected. Differences between the means of town centres were statistically insignificant at the .05 level for both the positive sentiment and the negative sentiment groups. The results of the ANOVA are reported in Table 6-22 and Table 6-23. Additionally, no statistically significant differences between the four groups were found when the sample was combined.

Table 6-22: Comparison of the means ANOVA for BC and CATCA by Motility of Town Centre

Two groups split by business sentiment BC and CATCA			Sum of Squares	df	Mean Square	Fcalc.	p-value
Sentiment Positive	BC * Town Centre Motility	Between groups (combined)	.064	3	.021	.948	.427
		Within groups	.878	39	.023		
		Total	.942	42			
	CATCA * Town Centre Motility	Between groups (combined)	.178	3	.059	.750	.529
		Within groups	3.084	39	.079		
		Total	3.262	42			
Sentiment Negative	BC * Town Centre Motility	Between groups (combined)	.003	3	.001	.047	.986
		Within groups	2.189	109	.020		
		Total	2.191	112			
	CATCA * Town Centre Motility	Between groups (combined)	.543	3	.181	1.565	.202
		Within groups	12.609	109	.116		
		Total	13.153	112			

Table 6-23: Measures of Association from same ANOVA test

Two groups split by business sentiment BC and CATCA		Eta	Eta Squared
Sentiment Positive	BC * Town Centre Motility	.261	.068
	CATCA * Town Centre Motility	.234	.055
Sentiment Negative	BC * Town Centre Motility	.036	.001
	CATCA * Town Centre Motility	.203	.041

While the null hypothesis could not be rejected at p<0.05, the relative differences between the town centres were still compared for the positive sentiment group and the negative sentiment

group against the hypotheses (see Table 6-24). Only in the case of CATCA for the positive sentiment group did the results match the theoretical expectations.

Table 6-24: Summary of observations presented against the hypotheses

		Sentiment Measures (Added Mobility)	
		BC	
	Hypotheses	Positive Sentiment Group ($\mu > 0$)	Negative Sentiment Group ($\mu \leq 0$)
H_0:	μGroup1 = μGroup2 = μGroup3 = μGroup4	Cannot reject at p<0.05	
H_1:	In the positive sentiment group: μ Group1, μ Group3 > μ Group2 , μ Group4	False as Group 1, Group 3 < Group 2, Group 4	
H_2:	In the negative sentiment group: μ Group1, μ Group3 > μ Group2 , μ Group4		False as Group 1, Group 3 < Group 4, Group 2
		CATCA	
		Positive Sentiment Group ($\mu > 0$)	Negative Sentiment Group ($\mu \leq 0$)
H_0:	μGroup1 = μGroup2 = μGroup3 = μGroup4	Cannot reject at p<0.05	
H_1:	In the positive sentiment group: μ Group3, μ Group4 > μ Group1 , μ Group2	Partly true as Group 4 > Group 1, Group 2 and Group 3 > Group 2 but Group 3 < Group 1	
H_2:	In the negative sentiment group: μ Group3, μ Group4 > μ Group1 , μ Group2		False as Group 3 < Group 1, Group 2 and Group 4 < Group 2 and Group 4 = Group 1

6.3 Regulatory Fit and business sentiment in Event 1

Using Regulatory Focus as a secondary model to differentiate business attitudes about the impact of adding sustainable transport options was fruitful. The six items used to measure CA, BC and TCA were designed to simultaneously measure business sensitivity to Regulatory Focused concerns about the addition of access options. Customers1, BizComp1 and Town1 measure sensitivity to increased business opportunities (PMOpportunityConcerns), while the other three items measure sensitivity to increased

business security (PVSecurityConcerns). Details about these measures are found in Section 5.1.2. The analysis of PMOpportunityConcerns and PVSecurityConcerns highlighted that businesses' positive sentiment was orientated around expectations about added opportunities related to attraction of customers rather than changes to business security.

The Regulatory Focus model also enabled the business attitudes to be analysed against Regulatory Fit as an indicator of the respondents' competency in goal attainment. Respondents with a Good Fit did show sensitivity consistent with theoretical expectations but the variation in scores from the Poor Fit group was not statistically significantly at $p<0.05$ level. Splitting the sample by their initial sentiment did however help to emphasise these differences. Observing respondents' overall Regulatory Fit and their perception of impact identified that those categorised as Poor PM Poor PV were distinct from those who had a Good Fit on either of the Regulatory Focus dimensions. Again splitting the sample by sentiment helped to make the commonality and differences more explicit.

The results for PMOpportunityConcerns and PVSecurityConcerns by Regulatory Fit are presented in Table 6-26. Both variables are scales ranging from -1.0 to 1.0, where a positive value means an expectation of increased opportunities/security, zero means no perceived impact, and a negative value expectation of a reduction of opportunities/security (as previously described in Table 5-5). As in Section 6.2.1 the sample was split by the variable *SplitBySentiment* to analyse businesses indicating a positive sentiment about changes to access separately to those indicating a negative sentiment. The smaller group of businesses (n=43) were those who viewed the changes to access positively. Table 6-25 shows the proportionate allocation to GoodFit and PoorFit varied little to that of the total sample as shown previously in Table 6-16.

Table 6-25: Allocation to Good Fit and Poor Fit conditions by sentiment

Split by Sentiment	PMOpportunityConcerns (n=156)		PVSecurityConcerns (n=156)	
	Poor Fit	Good Fit	Poor Fit	Good Fit
Sentiment Positive (n=43)	33 (77%)	10 (23%)	16 (37%)	27 (63%)
Sentiment Negative (n=113)	88 (78%)	25 (22%)	48 (43%)	65 (57%)

Mean scores on both PMOpportunityConcerns and PVSecurityConcerns are positive. Businesses however tended to perceive a more positive impact on opportunities than security.

The two measures are positively correlated 0.387 (significant at p<0.001 two-tailed test). When splitting the sample by positive and negative sentiment PMOpportunityConcerns and PVSecurityConcerns continue to be significantly positively correlated (positive sentiment group n=43, Pearson correlation 0.378, p=0.012 two-tailed test; negative sentiment group n=113, Pearson correlation 0.263, p=0.005 two-tailed test).

The descriptive analysis of respondent scores on PMOpportunityConcerns and PVSecurityConcerns are presented in Table 6-26 for the whole sample, Table 6-27 for the positive sentiment group and Table 6-28 for the negative sentiment group. Of interest is the changes between the sentiment of respondents categorised as having a Poor Fit and Good Fit as these represent the role competency in goal pursuit strategies may have on perspectives that a change to the accessibility of a street is a threat or an opportunity for a business.

Table 6-26: PMOpportunityConcerns and PVSecurityConcerns for the whole sample (n=156)

Sentiment	Regulatory Fit	N	Mean	Std. Deviation	Std. Error Mean
PMOpportunityConcerns	Poor Promotion Focus Fit	121	.5189	0.343	.031
	Good Promotion Focus Fit	35	.4487	0.399	.067
	Total	156	.5031	0.356	.0285
PVSecurityConcerns	Poor Prevention Focus Fit	64	.2011	0.212	.0265
	Good Prevention Focus Fit	92	.2068	0.229	.0239
	Total	156	.2044	0.221	.0177

Table 6-27: PMOpportunityConcerns and PVSecurityConcerns amongst positive sentiment businesses by Regulatory Fit (n=43)

Positive Sentiment	Regulatory Fit	N	Mean	Std. Deviation	Std. Error Mean
PMOpportunityConcerns	Poor Promotion Focus Fit	33	0.693	0.270	0.047
	Good Promotion Focus Fit	10	0.718	0.367	0.116
	Total	**43**	**0.698**	**0.291**	**0.044**
PVSecurityConcerns	Poor Prevention Focus Fit	16	0.313	0.200	0.050
	Good Prevention Focus Fit	27	0.376	0.176	0.034
	Total	**43**	**0.353**	**0.186**	**0.028**

Negative Sentiment	Regulatory Fit	N	Mean	Std. Deviation	Std. Error Mean
PMOpportunityConcerns	Poor Promotion Focus Fit	88	0.454	0.346	0.037
	Good Promotion Focus Fit	25	0.341	0.364	0.073
	Total	**113**	**0.429**	**0.352**	**0.033**
PVSecurityConcerns	Poor Prevention Focus Fit	48	0.164	0.204	0.030
	Good Prevention Focus Fit	65	0.136	0.212	0.026
	Total	**113**	**0.148**	**0.208**	**0.020**

Figure 6-5 and Figure 6-6 highlight that the overall level of goal concern about the presence of business opportunities and increased business security was positive – even amongst the negative sentiment group. Respondents expressed more confidence in business opportunities than increased business security which scored closer to the middle of the scale.

Grouping of businesses by positive or negative sentiment made the difference between those with a Poor and Good Fit more apparent. Amongst the positive sentiment group, Regulatory Fit had no apparent effect on how a business perceives the business opportunities arising from the change in access, but it did make a difference in the recognition of added business security. The respondents with a Good Prevention Focus Fit were more inclined to perceive changes in access as providing additional business security when in the positive sentiment group but less optimistic in the negative sentiment group. The negative sentiment group with Poor Promotion Focus Fit were however more likely to see opportunities than the Good Promotion Focus Fit. This suggests that all businesses find it easier to imagine business opportunities from changes to access as compared to imagining how business security can be enhanced. In other words, competency in Promotion Focus strategies is no barrier to recognising opportunities but competency in Prevention Focus strategies may be.

Figure 6-5: The influence of Regulatory Fit in business sentiment about opportunity concerns
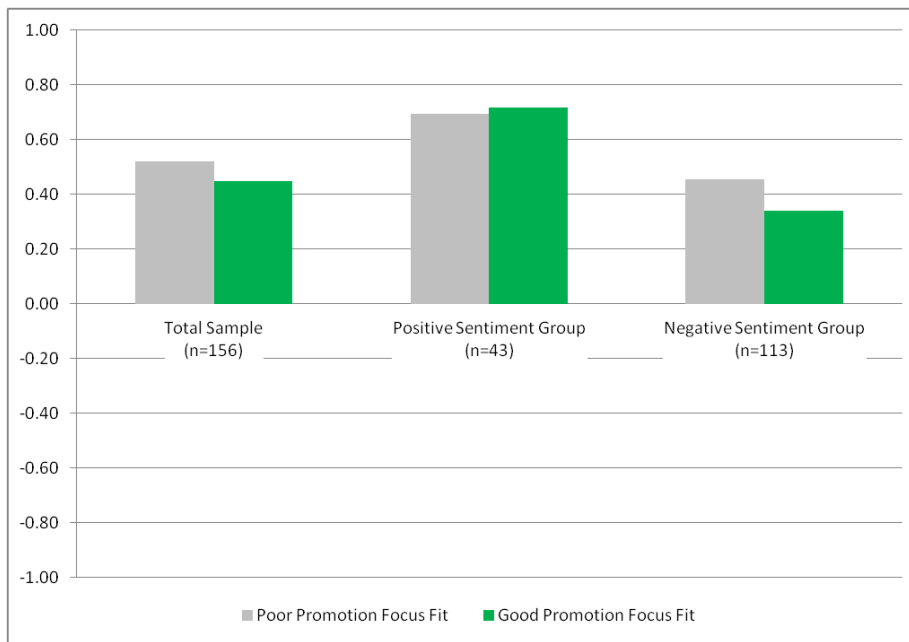
Figure 6-6: The influence of Regulatory Fit in business sentiment about security concerns
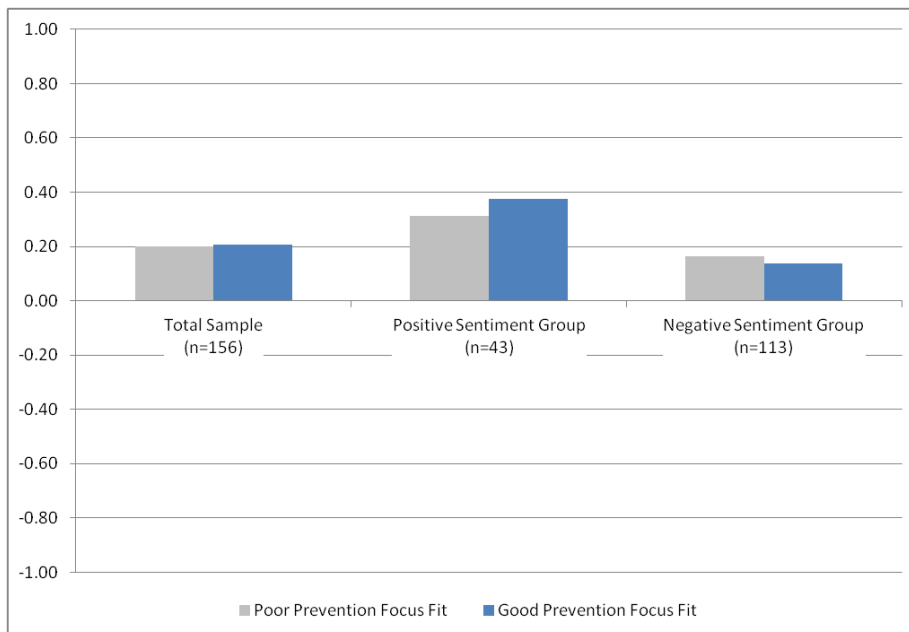
To test the hypotheses set out in Table 6-31, an independent samples t-test was done to determine if the means between the Good and Poor Fit groups were significantly different. Levene's test indicated that in all cases equal variances should be assumed as the significance for the F-statistic was more than 0.05. As shown in Table 6-29 the mean differences in all cases was marginal and not statistically significant at the 0.05 level for two-tailed tests.

Table 6-29: T-test for equality of GoodFit and PoorFit means for sentiment measures

Regulatory Fit	t	df	p-value (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Whole sample							
PMOpportunityConcerns	-1.026	154	.307	-.07014	.06838	-.20524	.06495
PVSecurityConcerns	.157	154	.875	.00568	.03616	-.06575	.07711
Positive Sentiment Group							
PMOpportunityConcerns	.235	41	.816	.02492	.10613	-.18942	.23926
PVSecurityConcerns	1.086	41	.284	.06346	.05846	-.05459	.18152
Negative Sentiment Group							
PMOpportunityConcerns	-1.417	111	.159	-.11251	.07940	-.26986	.04483
PVSecurityConcerns	-.692	111	.490	-.02748	.03970	-.10614	.05118

ANOVA was used to compare the variances (see Table 6-30). The results confirmed the variances were not statistically significantly different for Good and Poor Fit groups.

Table 6-30: ANOVAs for PMOpportunityConcerns and PVSecurityConcerns for the sample

			Sum of Sq	df	Mean Sq	F	p-value
Whole sample	PMOpportunityConcerns	Between Groups	.134	1	.134	1.052	.307
		Within Groups	19.551	154	.127		
		Total	19.684	155			
	PVSecurityConcerns	Between Groups	.001	1	.001	.025	.875
		Within Groups	7.600	154	.049		
		Total	7.601	155			
Positive Sentiment Gp	PMOpportunityConcerns	Between Groups	.005	1	.005	.055	.816
		Within Groups	3.544	41	.086		
		Total	3.549	42			
	PVSecurityConcerns	Between Groups	.040	1	.040	1.179	.284
		Within Groups	1.408	41	.034		
		Total	1.448	42			
Negative Sentiment Gp	PMOpportunityConcerns	Between Groups	.246	1	.246	2.008	.159
		Within Groups	13.626	111	.123		
		Total	13.872	112			
	PVSecurityConcerns	Between Groups	.021	1	.021	.479	.490
		Within Groups	4.830	111	.044		
		Total	4.851	112			

Despite the differences in Figure 6-5 and Figure 6-6, the hypothesis tests were unable to support the theoretical expectation that Regulatory Fit would influence business sensitivity to different business goal concerns (see Table 6-31 for a summary). In other words, a respondent's choice of the Promotion Focused business goal 'to grow the business' and their level of endorsement of Promotion Focus strategies had no statistically significant effect on their sensitivity to business opportunity concerns. Similarly there was no statistically significant difference in respondent's sensitivity to business security concerns and their choice of the Prevention Focused business goal 'to strengthen the business' and their level of endorsement of Prevention Focus strategies.

Table 6-31: Testing null hypothesis that estimated population variances of Good and Poor Fit populations are equal

		Sentiment Measures (Event 1)	
		PMOpportunityConcerns	
	Hypotheses	Positive Sentiment Group	Negative Sentiment Group
H_0:	$\mu_{PMGoodFit} = \mu_{PMPoorFit}$	Cannot reject at p=0.05 level. $t(154) = -1.026$; p=0.307 (two-tailed test)	
		Cannot reject at p=0.05 level. $t(41) = -0.235$; p=0.816 (two-tailed test)	Cannot reject at p=0.05 level. $t(111) = -1.417$; p=0.159 (two-tailed test)
H_1:	$\mu_{PMGoodFit} \neq \mu_{PMPoorFit}$	False.	False.
H_2:	$\sigma^2_{PMGoodFit} < \sigma^2_{PMPoorFit}$	False. ANOVA, F=0.55; p=0.816	False. ANOVA, F=2.008; p=0.159
		PVSecurityConcerns	
	Hypotheses	Positive Sentiment Group	Negative Sentiment Group
H_0:	$\mu_{PVGoodFit} = \mu_{PVPoorFit}$	Cannot reject at p=0.05 level. $t(154) = 0.157$; p=0.875 (two-tailed test)	
		Cannot reject at p=0.05 level. $t(41) = 1.086$; p=0.284 (two-tailed test)	Cannot reject at p=0.05 level. $t(111) = -0.692$; p=0.490 (two-tailed test)
H_1:	$\mu_{PVGoodFit} \neq \mu_{PVPoorFit}$	False.	False.
H_2:	$\sigma^2_{PVGoodFit} < \sigma^2_{PVPoorFit}$	False. ANOVA, F=1.179; p=0.284	False. ANOVA, F=0.479; p=0.490

The graphs at Figure 6-7 indicate that Regulatory Fit may help characterise commonality, rather than differences, amongst business' sharing sentiment business goal concerns about Event 1, the addition of sustainable access options. By splitting the sample into three groups (E1Group1, E1Group2 and E1Group3) those who had a Poor Fit on both Regulatory Focus

dimensions can be differentiated from those with a Good Fit on either Prevention Focus or Promotion Focus.[40]

Figure 6-7: Marginal means for business goal concerns compared by Regulatory Fit in Event 1
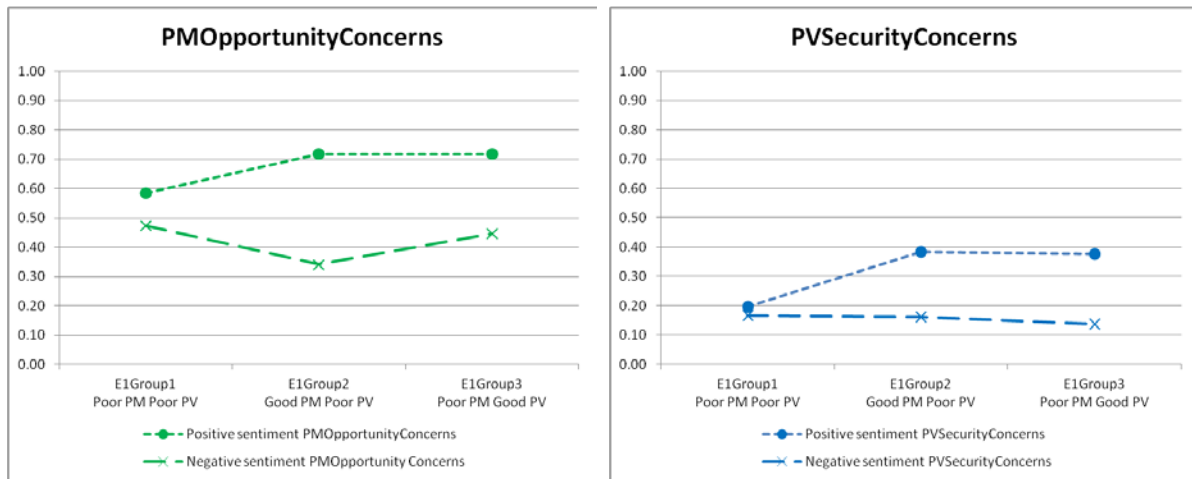
Three important observations can be made about Figure 6-7. First, the convergence of points in the E1Group1 which had both a Poor Promotion Focus Fit and a Poor Prevention Focus Fit is interesting as it indicates little variation between positive and negative sentiment groups for this event. In contrast the greater distance between points for E1Group2 and E1Group3 suggests the positive and negative sentiment groups judged the change to access differently. Secondly, the graphs highlight the absence of good Regulatory Fit can also influence positive sentiment. In both graphs the E1Group1 consistently scored lower than E1Group2 and E1Group3 amongst the positive sentiment group. Thirdly, the graphs highlight the similarity between the Regulatory Fit groups. Amongst the negative sentiment group on PMOpportunityConcerns graph, the E1Group1 and E1Group3 have more in common but for the positive sentiment group E1Group2 and E1Group3 are more similar. In the PVSecurityConcerns graph, E1Group2 and E1Group3 are again more similar amongst the positive sentiment group. Amongst the negative sentiment group there is little distinction between the three Regulatory Fit groups. This suggests that Regulatory Fit may have more significance under positive sentiment conditions.

These initial observations of business sensitivity to Regulatory Fit are explored further in the next section which presents analysis of actions taken by businesses in Event 1 and 2. It will

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[40] Details of how respondents were assigned to a group are found in Table 5-11.

also be used to assess the effectiveness of Regulatory Focus as a strategy to induce behaviour change amongst businesses in Event 2 and 3.

6.4 Influence of Regulatory Focus in Events 1, 2 and 3

Business perceptions about the value of access options that are not catering to car customers become clearer when the actions businesses choose are analysed against their initial expectation of impacts. The Town Centre Business Survey tests the hypotheses that businesses act in accordance to the Regulatory Focus Model. The survey exposes respondents to three different scenarios and Regulatory Focus framed instructions. Figure 6-8 provides an overview of the choices and the final number of respondents exposed to each situation. In events 2 and 3 the respondents were randomly allocated to screens where a goal-task was designed to induce Regulatory Focused behaviour.

Figure 6-8: The distribution of respondents over three intervention events (n=156)*
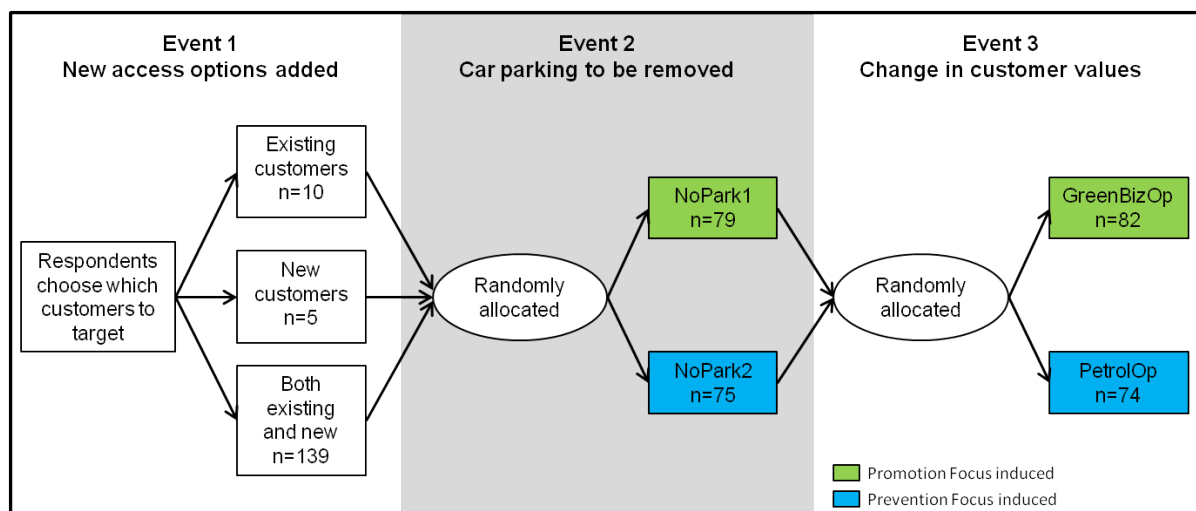
* Data was missing for four respondents reducing the sample size to 154 in Event 1 and Event 2.[41]

Three screens were prepared for Event 1 to allow respondents to state if they were strategically more focused on existing, new or both types of customers in light of the changes to access. The Local Government Focus Groups had expressed a strong expectation that businesses would be focused on existing customers rather than new customers. However the addition of the 'both' option in the survey resulted in less than ten percent of respondents choosing to limit themselves to existing or new customers.

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[41] Disruptions in the internet connection are thought to have interfered with the validation tests set up to ensure respondents provided a response before being able to move to the next screen in the survey.

In the Event 2 scenario, survey respondents were told parking had to be removed to enable the new access options described in Event 1. Event 2 had a more even distribution of respondents in the two action lists with 51 percent in NoPark1 and 49 percent in NoPark2. The list of actions presented in NoPark1 and NoPark2 were the same but the instructions varied. In Event 3 respondents were randomly directed to one of two scenarios designed again to induce a Regulatory Focus. Eighty-two respondents (54 percent) were presented with the GreenBizOp scenario, and 74 respondents the PetrolOp scenario.

All seven screens presented a goal-task and a list of actions that respondents could take to fulfil the goal. They could choose more than one action. (Detailed information about the action lists and associated hypotheses are found in Section 5.1.5 and illustrated in Figure 5-3 . The actions respondents chose are subject to two types of analysis. The first centres on the number of actions taken as this is hypothesized to differ if the respondents are using eager strategies (Promotion Focus) or vigilant strategies (Prevention Focus). The second level of analysis is the type of action they chose: first in terms of the adoption of new access actions versus traditional actions and secondly in terms of actions that are antagonistic versus synergetic to the policy goal.

6.4.1 Regulatory Focus compliant behaviour in Events 1 and 2

Event 1 and Event 2 are two parts of the same hypothetical disturbance - the removal of existing car parking to add more sustainable transport options. To aid the analysis on how businesses responded to the disturbance Table 6-32 presents the combined count of actions of the total sample and the sample split by sentiment. The combined list corrects for repetition of options – namely the action to add customer seating outside the shop which occurs in both sets. In Event 1 a higher number of actions were taken as compared to Event 2. When the number of actions is analysed by sentiment, the mean number of actions in the positive sentiment group was higher ($\bar{x}$=6.05 S.D=2.862) but Figure 6-9 shows the respondents who chose the most actions were in the negative sentiment group. The number of actions was not statistically significantly different for either event when the sample was split by sentiment: Event 1 (ANOVA, F=1.941 p=0.166); Event 2 (ANOVA, F=0.036 p=0.850); combined (ANOVA, F=0.663 p=0.417).

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Table 6-32: Comparing total count of actions taken in Events 1 and 2 scenarios (n=154)

Total Count of Actions		N	Mean	Std. Error	Std. Deviation
Whole sample	Event 1 – Access added	154	3.53	.139	1.731
	Event 2 – No parking	154	2.61	.125	1.556
	Combined*	156	5.75	.224	2.802
Sentiment positive	Event 1 – Access added	43	3.84	.294	1.926
	Event 2 – No parking	42	2.57	.229	1.484
	Combined*	43	6.05	.436	2.862
Sentiment negative	Event 1 – Access added	111	3.41	.156	1.642
	Event 2 – No parking	112	2.63	.150	1.589
	Combined*	113	5.64	.262	2.782

* Adjusted to avoid double counting of action to add customer seating outside shop.

Figure 6-9: Histogram of actions taken in Event 1 and 2 combined*
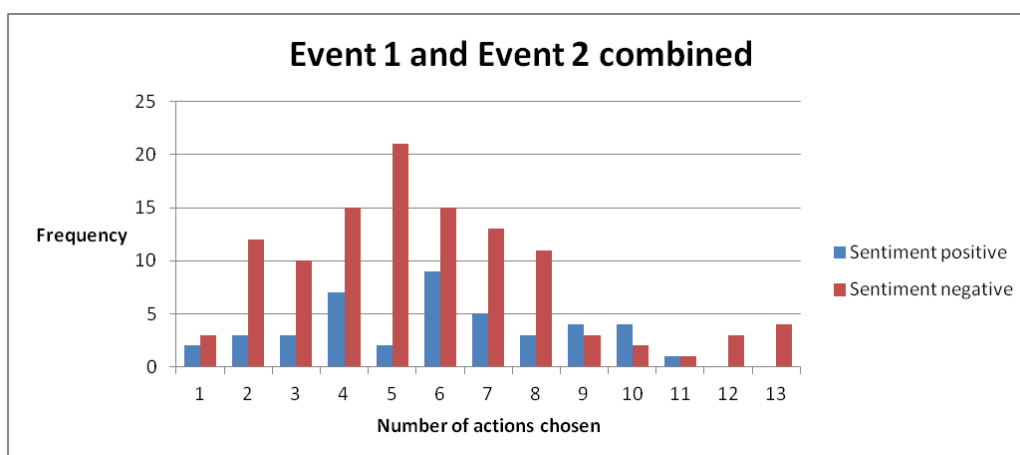
* Adjusted to avoid double counting of action to add customer seating outside shop.

To test the hypotheses that the number of actions taken correspond to the RFT model, that is a Regulatory Focused goal corresponding to certain Regulatory Focus strategic actions, the sample was categorised by Regulatory Fit. In Event 1, this categorisation of respondents reflects their current business goal and RFSS scores. In Event 2 the categorisation of Regulatory Fit reflects the induced NoPark goal task and their RFSS scores. The following analysis focuses first on differences between the sample based on Poor Fit and Good Fit on each of the Regulatory Focus dimensions separately. It then analyses differences between three groups which combine Promotion Focus and Prevention Focus Fit. Respondents could not, by the design of the experiment, have a Good Fit on both dimensions. Table 6-33 and Table 6-34 show the relative sample sizes for each Regulatory Fit condition.

Table 6-33: Sample grouped by Regulatory Fit for Event 1: New mobility options

E1 PVGoodPoorFit	E1 PMGoodPoorFit	
	Poor Promotion Focus Fit	Good Promotion Focus Fit
Poor Prevention Focus Fit	29	35
Good Prevention Focus Fit	92	0

Table 6-34: Sample grouped by Regulatory Fit for Event 2: No parking

E2 PVGoodPoorFit	E2 PMGoodPoorFit	
	Poor Promotion Focus Fit	Good Promotion Focus Fit
Poor Prevention Focus Fit	25	72
Good Prevention Focus Fit	59	0

6.4.1.1   Event 1 – new mobility options added to Town Centre

In Event 1 businesses learnt about enhancements to their business street to make public transport, cycling and walking easier. There was little difference between the means of Poor and Good Fit until the sample was split by sentiment, as shown in Table 6-35.

Table 6-35: Comparing count of actions in Event 1 by Regulatory Fit and business sentiment

Count of actions		N	Mean	Std. Error	Std. Dev.	Variance
Total sample	Poor Promotion Focus Fit	119	3.51	0.154	1.682	2.828
	Good Promotion Focus Fit	33	3.58	0.326	1.871	3.502
	Poor Prevention Focus Fit	61	3.67	0.232	1.814	3.291
	Good Prevention Focus Fit	91	3.43	0.173	1.654	2.737
Sentiment positive	Poor Promotion Focus Fit	33	3.55	0.29	1.679	2.818
	Good Promotion Focus Fit	9	5.22	0.72	2.167	4.694
	Poor Prevention Focus Fit	15	4.80	0.52	2.007	4.029
	Good Prevention Focus Fit	27	3.41	0.32	1.670	2.789
Sentiment negative	Poor Promotion Focus Fit	86	3.50	0.18	1.693	2.865
	Good Promotion Focus Fit	24	2.96	0.27	1.334	1.781
	Poor Prevention Focus Fit	46	3.30	0.24	1.604	2.572
	Good Prevention Focus Fit	64	3.44	0.21	1.661	2.758

Comparing the number of actions by business sentiment is visible in Figure 6-10. The green graph shows Promotion Focus Fit and Prevention Focus Fit is shown in the blue graph. In both cases the mean scores of the positive sentiment group can be seen to change when Regulatory Fit is used as a comparator.

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Figure 6-10: Comparing count of actions by Regulatory Fit and sentiment in Event 1
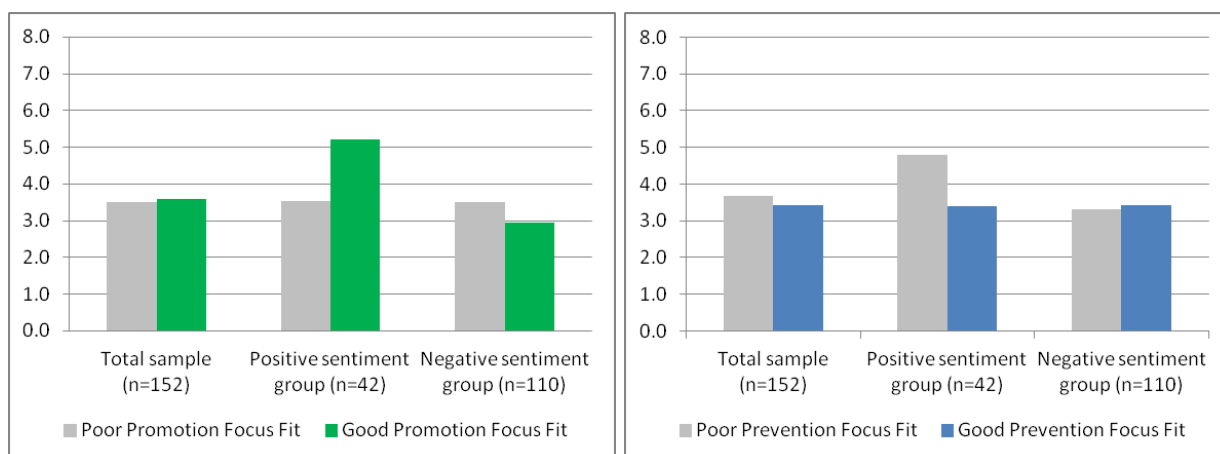
The differences observed in the positive sentiment group are consistent with research expectations about Regulatory Focused behaviour. The respondents classed as Good Promotion Focus Fit chose more actions ($\bar{x}$=5.22; SD=2.167) than the respondents classed as having a Poor Promotion Focus Fit ($\bar{x}$=3.55; SD=1.679). This is consistent with the expectation a Good Promotion Focus Fit would be the most inclined to use eager strategies though not different enough to be statistically significant (t(41)=-1.856; p=0.071 two-tailed test). The same group of positive sentiment respondents categorized by Prevention Focus Fit are seen to exhibit vigilant strategies as expected. The average number of actions chosen by respondents classed as Good Prevention Focus Fit ($\bar{x}$=4.80; SD=2.007) was lower than those with a Poor Prevention Focus Fit ($\bar{x}$=3.41; SD=1.670) and almost statistically significant (t(41)=1.964; p=0.056 two-tailed test). The negative sentiment groups did not exhibit as much difference between Poor and Good Fit, however the direction of the differences was opposite to the positive sentiment groups.

Table 6-36: T-test for equality of GoodFit and PoorFit mean count of actions in Event 1

		t	df	p-value (2-tailed)	Mean Difference	Std. Error Difference
Total Sample	E1PMGoodPoorFit	-.306	154	.760	-.104	.340
	E1PVGoodPoorFit	-.758	154	.450	-.218	.288
Sentiment Positive	E1PMGoodPoorFit	-1.856	41	.071	-1.255	.676
	E1PVGoodPoorFit	1.964	41	.056	1.155	.588
Sentiment Negative	E1PMGoodPoorFit	1.515	109	.133	.570	.376
	E1PVGoodPoorFit	-.239	109	.811	-.076	.317

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Table 6-37 assesses the survey results against the hypotheses. It shows that the positive sentiment group acted in ways more consistent with the Regulatory Focus model than the negative sentiment group. The negative sentiment group is a larger sample but show less sensitivity to Regulatory Fit – a point identified in the comparison of business goal concerns by Regulatory Fit in Section 6.3. If the negative sentiment group act contrary to the Regulatory Focus model in Event 2 and 3 it will be a strong indicator that Regulatory Focus will not aid policymakers in encouraging behaviour change.

Table 6-37: Assessment of hypothesis tests for count of actions in Event 1

		Event 1	
		E1PMGoodPoorFit	
		Positive Sentiment Group	**Negative Sentiment Group**
H_0:	$\mu_{PMGoodFit} = \mu_{PMPoorFit}$	Cannot reject. $t(41)=-1.856$; $p=0.071$ (two-tailed test)	Cannot reject. Mean difference $=0.570$; $t(109)=-1.515$; $p=0.133$ (two-tailed test)
H_1:	$\mu_{PMGoodFit} > \mu_{PMPoorFit}$	True PMGoodFit $\bar{x}=5.22$ is more than PMPoorFit $\bar{x}=3.55$	False. PMGoodFit $\bar{x}=3.50$ is less than PMPoorFit $\bar{x}=2.96$
H_2:	$\sigma^2_{PMGoodFit} < \sigma^2_{PMPoorFit}$	False. $\sigma^2_{PMGoodFit} = 4.694$ and $\sigma^2_{PMPoorFit} = 2.818$	True. $\sigma^2_{PMGoodFit} = 1.781$ and $\sigma^2_{PMPoorFit} = 2.865$
		E1PVGoodPoorFit	
		Positive Sentiment Group	**Negative Sentiment Group**
H_0:	$\mu_{PVGoodFit} = \mu_{PVPoorFit}$	Borderline $t(41)=-1.964$; $p=0.056$ (two-tailed test)	Cannot reject. Mean difference $=-0.076$; $t(109)=-.239$; $p=0.811$ (two-tailed test)
H_1:	$\mu_{PVGoodFit} < \mu_{PVPoorFit}$	True PVGoodFit $\bar{x}=3.41$ is less than PVPoorFit $\bar{x}=4.80$	False. PVGoodFit $\bar{x}=3.44$ is more than PVPoorFit $\bar{x}=3.30$
H_2:	$\sigma^2_{PVGoodFit} < \sigma^2_{PVPoorFit}$	True. $\sigma^2_{PVGoodFit} = 2.789$ and $\sigma^2_{PVPoorFit} = 4.029$	True. $\sigma^2_{PVGoodFit} = 2.758$ and $\sigma^2_{PVPoorFit} = 2.572$

6.4.1.2 Event 2 – parking removed

Event 2 is the first intervention in the survey designed to induce Regulatory Focus behaviour. It was expected that the respondents would temporarily adopt behaviour of the induced Regulatory Focus, irrespective of their stated preference for eagerness and vigilant strategies (measured by the Regulatory Fit). Compared to Event 1, respondents chose less actions in Event 2, even those induced to a Promotion Focused goal-task. Figure 6-11 shows there is very little distinction between respondents who were subject to Park1 (the Promotion Focused goal-task) and Park2 (the Prevention Focused goal-task). Visual differences are observable between the Good and Poor Fit, though statistically the differences were largely insignificant. Data used for the comparative analyses is presented in Table 6-38.

Figure 6-11: Comparing count of actions by Regulatory Fit and sentiment in Event 2
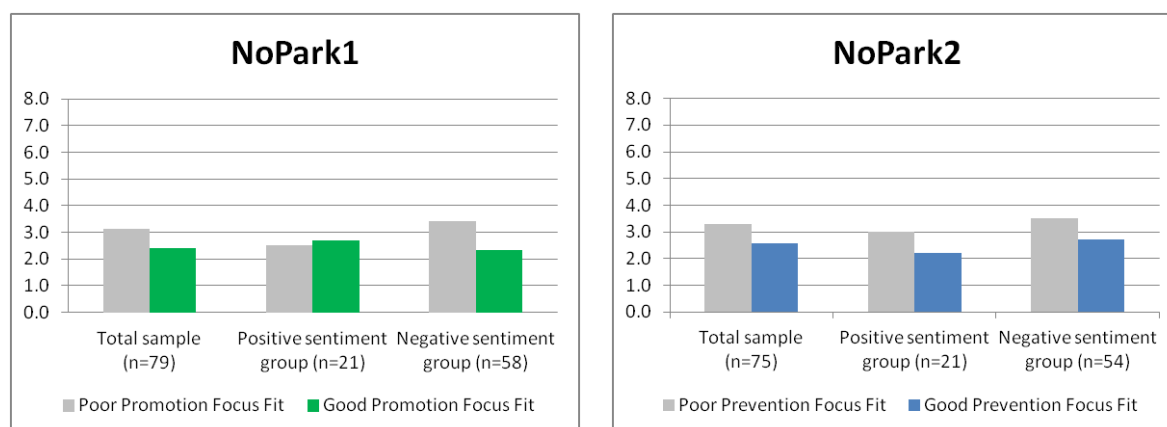
The analysis of mean scores confirmed that the Town Centre Business Survey did not successfully induce Regulatory Focus behaviour. The mean count of actions taken in NoPark1 and NoPark2 scenarios is not statistically significantly different for the total sample ($t(152)=-1.059$; $p=0.291$). Moreover, there was no statistically significant difference between NoPark1 and NoPark2 when the sample was split by sentiment (positive sentiment group: $t(40)=0.412$; $p=0.683$; and negative sentiment group: $t(110)=-1.465$; $p=0.146$). That is, respondents exposed to NoPark1 were no more encouraged to adopt eager strategies than NoPark2, and respondents exposed to NoPark2 were no more encouraged to adopt vigilant strategies than NoPark1. The data analysis results are provided in Table 6-39 and the summary of the hypotheses tests in Table 6-40.

Table 6-38: ActCountE2 Count of actions in Hypothetical Scenario 2 - no parking (n=154)

	Scenario	Regulatory Fit	N	Mean	Std. Error	Std. Deviation	Variance
Total sample	NoPark1	Poor Promotion Focus Fit	7	3.14	0.634	1.676	2.810
		Good Promotion Focus Fit	72	2.42	0.158	1.340	1.796
		ALL in NoPark1	79	2.48	0.15	1.376	1.894
	NoPark2	Poor Prevention Focus Fit	17	3.29	0.340	1.404	1.971
		Good Prevention Focus Fit	58	2.59	0.235	1.787	3.194
		ALL in NoPark2	75	2.75	0.199	1.725	2.975
Sentiment positive	NoPark1	Poor Promotion Focus Fit	2	2.50	1.500	2.121	4.500
		Good Promotion Focus Fit	19	2.68	0.325	1.416	2.006
		ALL in NoPark1	21	2.67	0.311	1.426	2.033
	NoPark2	Poor Prevention Focus Fit	7	3.00	0.58	1.528	2.333
		Good Prevention Focus Fit	14	2.21	0.42	1.578	2.489
		ALL in NoPark2	21	2.48	0.34	1.569	2.462
Sentiment negative	NoPark1	Poor Promotion Focus Fit	5	3.40	0.75	1.673	2.800
		Good Promotion Focus Fit	53	2.32	0.18	1.312	1.722
		ALL in NoPark1	58	2.41	0.18	1.364	1.861
	NoPark2	Poor Prevention Focus Fit	10	3.50	0.43	1.354	1.833
		Good Prevention Focus Fit	44	2.70	0.28	1.850	3.422
		ALL in NoPark2	54	2.85	0.24	1.785	3.185

Table 6-39: T-test for equality of GoodFit and PoorFit mean count of actions in Event 2

		t	df	p-value (2-tailed)	Mean Difference	Std. Error Difference
Total Sample	NoPark1 and NoPark2 compared	-1.059	152	0.291	-0.266	0.251
	NoPark1 E2PMGoodPoorFit	1.340	77	0.184	0.726	0.542
	NoPark2 E2PVGoodPoorFit	1.501	73	0.138	.708	0.472
Sentiment Positive	NoPark1 and NoPark2 compared	.412	40	0.683	0.190	0.251
	NoPark1 E2PMGoodPoorFit	-.443	40	0.660	-.206	0.465
	NoPark2 E2PVGoodPoorFit	1.106	40	0.275	0.536	0.484
Sentiment Negative	NoPark1 and NoPark2 compared	-1.465	110	0.146	-0.438	0.299
	NoPark1 E2PMGoodPoorFit	1.975	106	0.051	0.578	0.292
	NoPark2 E2PVGoodPoorFit	-.425	110	0.672	-.131	0.309

In Event 1 it was expected that compliance to the Regulatory Focus model would be strongest amongst those with a Good Fit due to Regulatory Fit. In Event 2, as the count of actions did not vary between an induced Promotion Focus or Prevention Focus, attention is placed again on the role, if any, of Regulatory Fit. Comparison of the means found in most instances there were no statistically significant differences between Good Fit and Poor Fit. The exception was an almost statistical significant difference was observed for the negative sentiment group exposed to No Park 1: $t(106)=1.975$; $p=0.051$ (two-tailed test). The nature of the difference was contrary to the Regulatory Focus model, as the Poor Promotion Focus Fit chose more actions, that is demonstrated more eagerness than the Good Promotion Focus Fit. However examination of the variance identifies that NoPark1GoodFit was smaller than NoPark1PoorFit, suggesting that in the negative sentiment group, there was greater consistency in behaviour within the Good Promotion Focus Fit group compared to within the Poor Promotion Focus Fit group.

Table 6-40: Assessment of hypothesis tests for Event 2

	Event 2		
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{NoPark1} = \mu_{NoPark2}$	Cannot reject at the p=0.05 level. t(152)=-1.059; p=0.291 (two-tailed test)	
		Cannot reject at the p=0.05 level. t(40)=0.412; p=0.683 (two-tailed test)	Cannot reject at the p=0.05 level. t(110)= -1.465; p=0.146 (two-tailed test)
H_1:	$\mu_{NoPark1} > \mu_{NoPark2}$	False	
		True but not statistically significantly different. NoPark1 $\bar{x}$=2.67 NoPark2 $\bar{x}$=2.48	False.
	E2PMGoodPoorFit (NoPark1)		
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{NoPark1GoodFit} = \mu_{NoPark1PoorFit}$	Cannot reject at the p=0.05 level. t(40)= -0.443; p=0.660 (two-tailed test)	Borderline t(106)=1.975; p=0.051 (two-tailed test)
H_2:	$\mu_{NoPark1GoodFit} > \mu_{NoPark1PoorFit}$	True. NoPark1GoodFit $\bar{x}$=2.68 NoPark1PoorFit $\bar{x}$=2.50	False. NoPark1GoodFit $\bar{x}$=2.32 NoPark1PoorFit $\bar{x}$=3.40
H_4:	$\sigma^2_{NoPark1GoodFit} < \sigma^2_{NoPark1PoorFit}$	True but irrelevant. σ^2 NoPark1GoodFit = 2.006 σ^2 NoPark1PoorFit = 4.500	True. σ^2 NoPark1GoodFit = 1.722 σ^2 NoPark1PoorFit = 2.800
	E2PVGoodPoorFit (NoPark2)		
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{NoPark2GoodFit} < \mu_{NoPark2PoorFit}$	Cannot reject at the p=0.05 level. t(40)= 1.106; p=0.275 (two-tailed test)	Cannot reject at the p=0.05 level. t(110)= -0.425; p=0.672 (two-tailed test)
H_3:	$\mu_{NoPark2GoodFit} < \mu_{NoPark2PoorFit}$	True but irrelevant. NoPark2GoodFit $\bar{x}$=2.21 NoPark2PoorFit $\bar{x}$=3.00	True but irrelevant. NoPark2GoodFit $\bar{x}$=2.70 NoPark2PoorFit $\bar{x}$=3.50
H_4:	$\sigma^2_{NoPark2GoodFit} < \sigma^2_{NoPark2PoorFit}$	False. σ^2 NoPark2GoodFit = 2.489 σ^2 NoPark2PoorFit = 2.333	False. σ^2 NoPark2GoodFit = 3.422 σ^2 NoPark2PoorFit = 1.833

This preliminary assessment of how businesses responded to an induced Regulatory Focus means RFT may not be useful in applied situations. Nevertheless, this analysis presents an indication of how RFT can help understand patterns of responsive strategic behaviour

amongst businesses. Firstly, vigilant strategies can be associated with the reduction of actions taken by those with a Good Prevention Focus Fit, which is less than those in the Poor Prevention Focus Fit group when examined as a total sample, and as a sample split by sentiment. Secondly, the similarity between NoPark1 and NoPark2 in Figure 6-11 suggest there was a greater appeal in using vigilant strategies than eager strategies, even for those with a Good Promotion Focus Fit. Thirdly, the appeal of vigilant strategies may be strongest amongst the negative sentiment group, as seen in the statistically significant result of the Good Promotion Focus Fit in NoPark1.

However, using the count of actions as a measure of compliance to the Regulatory Focus model may not be the best measure. The resource costs of different actions vary and so do individual's assessment of risks. An analysis of the choice of actions, traditional versus those using new access resources is the focus of Section 6.5.

6.4.1.3 Event 1 and 2 - shifts in strategic behaviour

The difficulty of attributing changes in businesses' strategic behaviour in Events 1 and 2 to Regulatory Focus could be the result of new information about the removal of car parking. To explore this possibility, the data from Event 1 and Event 2 are analysed using overall Regulatory Fit to categorise the sample into three groups and observe changes in behaviour across the two events. The mean number of actions taken for each group are used for the analysis. The data are presented in Table 6-41

Table 6-41: Regulatory Fit and the mean number of actions chosen in Events 1 and 2

		Regulatory Fit	N	Mean	Std. Error	Std. Deviation	Variance
Total	Event 1	Poor PM Poor PV	29	3.86	0.33	1.787	3.195
		Good PM Poor PV	34	3.50	0.32	1.895	3.591
		Poor PM Good PV	91	3.43	0.17	1.654	2.737
	Event 2	Poor PM Poor PV	24	3.25	0.30	1.452	2.109
		Good PM Poor PV	72	2.42	0.16	1.340	1.796
		Poor PM Good PV	58	2.59	0.23	1.787	3.194
Positive sentiment	Event 1	Poor PM Poor PV	6	4.17	0.70	1.722	2.967
		Good PM Poor PV	10	4.80	0.77	2.440	5.956
		Poor PM Good PV	27	3.41	0.32	1.670	2.789
	Event 2	Poor PM Poor PV	9	2.89	0.51	1.537	2.361
		Good PM Poor PV	19	2.68	0.32	1.416	2.006
		Poor PM Good PV	14	2.21	0.42	1.578	2.489
Negative sentiment	Event 1	Poor PM Poor PV	23	3.78	0.38	1.833	3.360
		Good PM Poor PV	24	2.96	0.27	1.334	1.781
		Poor PM Good PV	64	3.44	0.21	1.661	2.758
	Event 2	Poor PM Poor PV	15	3.47	0.36	1.407	1.981
		Good PM Poor PV	53	2.32	0.18	1.312	1.722
		Poor PM Good PV	44	2.70	0.28	1.850	3.422

Figure 6-12 highlights that eager strategies appear to be discarded in Event 2 in favour of vigilant strategies amongst the negative sentiment group. The dashed lines show how both positive and negative sentiment groups chose less actions in Event 2. After being exposed to information about removal of parking in Event 2, those demonstrating a positive attitude to the addition of new access are demonstrating behaviour more similar to the negative sentiment group. This is most apparent when examining the scores of Group 2 Good PM Poor

PV. In Event 1 those in the positive sentiment group chose many actions in accordance with a good Promotion Focus Fit, but in Event 2 there is a reduction in actions chosen. This group is no longer acting in line with Promotion Focus strategies and is exhibiting strategic behaviour more characteristic of the negative sentiment group. This change could also indicate that the new information was over-riding the influence of the induced goal task. It could also indicate that businesses were focused on an alternative strategic goal and the new goal was one more suitable to the use of Prevention Focus strategies.

Figure 6-12: Differences in count of actions taken in Events 1 and 2
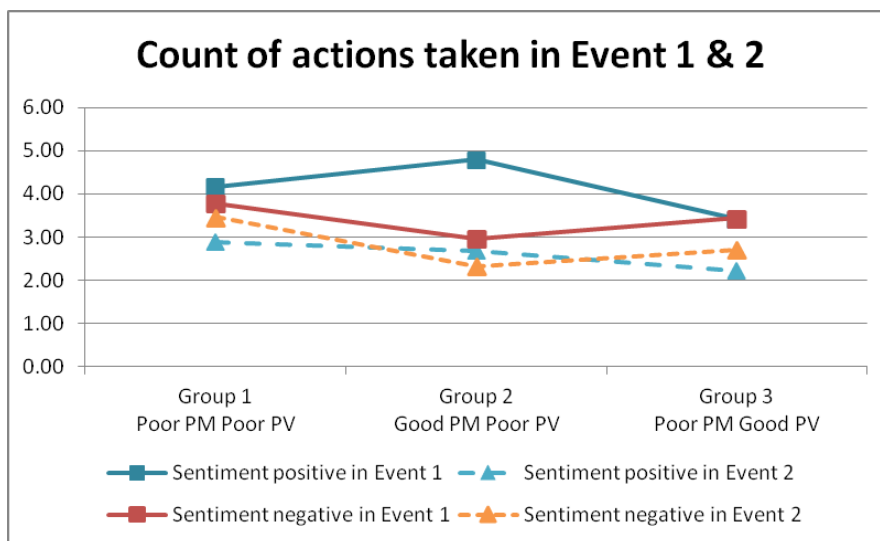
6.4.2 Event 3 – presenting information about changes in customer values

Event 3 was designed to determine if informing businesses about a change in how customer's make decisions about their shopping destinations could help reorientate businesses to adapting to the new transport access. Business respondents were presented with one of two scenarios both of which sought to induce a Regulatory Focus through goal-task instructions (see Figure 5-4 and Figure 5-5). As with the previous two events the count of actions were used as a measure of the take-up of eagerness and vigilance goal strategies. The descriptive data is presented in Table 6-42 and presented visually in Figure 6-13.

Table 6-42: ActCountE3 Count of actions in Event 3 - GreenBizOp (n=82) and PetrolOp (n=74)

	Scenario	Regulatory Fit	N	Mean	Std. Error	Std. Deviation	Variance
Total sample	GreenBizOp	Poor Promotion Focus Fit	38	2.55	0.26	1.606	2.578
		Good Promotion Focus Fit	44	2.70	0.25	1.636	2.678
		ALL in GreenBizOp	82	2.63	0.18	1.614	2.605
	PetrolOp	Poor Prevention Focus Fit	44	1.82	0.17	1.105	1.222
		Good Prevention Focus Fit	30	2.00	0.23	1.287	1.655
		ALL in PetrolOp	74	1.89	0.14	1.177	1.385
Sentiment positive	GreenBizOp	Poor Promotion Focus Fit	13	3.00	0.49	1.780	3.167
		Good Promotion Focus Fit	12	3.00	0.48	1.651	2.727
		ALL in GreenBizOp	25	3.00	0.34	1.683	2.833
	PetrolOp	Poor Prevention Focus Fit	14	1.50	0.29	1.092	1.192
		Good Prevention Focus Fit	4	1.50	0.29	0.577	0.333
		ALL in PetrolOp	18	1.50	0.23	.985	0.971
Sentiment negative	GreenBizOp	Poor Promotion Focus Fit	25	2.32	0.30	1.492	2.227
		Good Promotion Focus Fit	32	2.59	0.29	1.643	2.701
		ALL in GreenBizOp	57	2.47	0.21	1.571	2.468
	PetrolOp	Poor Prevention Focus Fit	30	1.97	0.20	1.098	1.206
		Good Prevention Focus Fit	26	2.08	0.27	1.354	1.834
		ALL in PetrolOp	56	2.02	0.16	1.213	1.472

Vigilant strategies again appear to be the dominant strategic approach in Event 3 but there is also evidence the induced Regulatory Focus scenario had some influence on strategic behaviour. There were eight actions available for businesses to choose from, including the choice to take no action. The column heights in Figure 6-13 show the mean number of actions is low. That is, respondents are demonstrating a tendency to choose not to take the majority of actions available in the scenario. The mean number of actions taken in the Promotion Focused scenario GreenBizOp ($\bar{x} = 2.63$) was slightly higher than in the Prevention Focused scenario PetrolOp ($\bar{x} = 1.89$). This slight difference between GreenBizOp and PetrolOp nevertheless is a statistically significant one for the total sample (ANOVA, F=10.572 p=0.001). That is, the difference between GreenBizOp and PetrolOp may mean the induced Regulatory Focus is having an effect. A statistically significant difference was also observed in the positive sentiment group (ANOVA, F=11.425 p=0.002), but not for the negative sentiment group.

Splitting the sample by Regulatory Fit in each scenario showed there was no statistically significant difference amongst those with a poor fit or a good fit (see Table 6-43). This result can be seen visually in Figure 6-13 where the heights of the grey columns of each poor fit group are close to equal that of the coloured good fit group. This absence of difference provides further support that the respondents' strategic action is likely to be influenced more by the induced scenario than their pre-existing competency in Promotion Focus and Prevention Focus strategies. A summary of the results of the hypothesis tests is presented in Table 6-44, Table 6-45 and Table 6-46.

Table 6-43: Testing T-test for equality of GoodFit and PoorFit mean count of actions in Event 3

		t	df	p-value. (2-tailed)	Mean Difference	Std. Error Difference
Total sample	GreenBizOp E3PMGoodPoorFit	.742	80	.460	.272	.366
	PetrolOp E3PVGoodPoorFit	-.528	70	.599	-.185	.351
Sentiment positive	GreenBizOp E3PMGoodPoorFit	-.824	23	.419	-.519	.631
	PetrolOp E3PVGoodPoorFit	.067	15	.947	.050	.741
Sentiment negative	GreenBizOp E3PMGoodPoorFit	1.373	55	0.175	0.615	.448
	PetrolOp E3PVGoodPoorFit	-.528	53	.599	-.215	.406

Table 6-44: Assessment of hypothesis tests for Event 3, GreenBizOp vs PetrolOp

		Event 3	
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{\text{GreenBizOp}} = \mu_{\text{PetrolOp}}$	Reject H_0 ANOVA, F=10.572 p=0.001	
		Reject H_0 ANOVA, F=11.425 p=0.002	Cannot reject at the p=0.05 level ANOVA, F=2.972 p=0.087
H_1:	$\mu_{\text{GreenBizOp}} > \mu_{\text{PetrolOp}}$	True. GreenBizOp $\bar{x}$ =2.63 and PetrolOp $\bar{x}$ =1.89	
		True. GreenBizOp $\bar{x}$ =3.00 PetrolOp $\bar{x}$ =1.50	True but insignificantly. GreenBizOp $\bar{x}$ =2.47 PetrolOp $\bar{x}$ =2.02

Table 6-45: Assessment of hypothesis tests for Event 3, GreenBizOp only

<table>
<tr><th></th><th colspan="3">E3PMGoodPoorFit (GreenBizOp)</th></tr>
<tr><th></th><th>Hypotheses</th><th>Positive Sentiment Group</th><th>Negative Sentiment Group</th></tr>
<tr><td>H_0:</td><td>$\mu_{GreenBizOpGoodFit} = \mu_{GreenBizOpPoorFit}$</td><td colspan="2">Cannot reject at the p=0.05 level.
Mean difference =0.272; t(80)=0.742; p=0.460 (two-tailed test)</td></tr>
<tr><td></td><td></td><td>Cannot reject.
Mean difference = -0.519;
t(23)= -0.842; p=0.419 (two-tailed test)</td><td>Cannot reject at p=0.05 level.
Mean difference =0.615;
t(55)=1.373; p=0.175 (two-tailed test)</td></tr>
<tr><td>H_2:</td><td>$\mu_{GreenBizOpGoodFit} > \mu_{GreenBizOpPoorFit}$</td><td colspan="2">True.
GreenBizOpGoodFit $\bar{x}$ =2.70 and GreenBizOpPoorFit $\bar{x}$ =2.55</td></tr>
<tr><td></td><td></td><td>False
GreenBizOpGoodFit $\bar{x}$ =3.00
GreenBizOpPoorFit $\bar{x}$ =3.00</td><td>True.
GreenBizOpGoodFit $\bar{x}$ =2.59
GreenBizOpPoorFit $\bar{x}$ =2.32</td></tr>
<tr><td>H_3:</td><td>$\sigma^2_{GreenBizOpGoodFit} < \sigma^2_{GreenBizOpPoorFit}$</td><td colspan="2">False.
σ^2 GreenBizOpGoodFit = 2.678 and σ^2 GreenBizOpPoorFit = 2.578</td></tr>
<tr><td></td><td></td><td>True.
σ^2 GreenBizOpGoodFit = 2.727
σ^2 GreenBizOpPoorFit = 3.167</td><td>False.
σ^2 GreenBizOpGoodFit = 2.701
σ^2 GreenBizOpPoorFit = 2.227</td></tr>
</table>

Table 6-46: Assessment of hypothesis tests for Event 3, PetrolOp only

<table>
<tr><th></th><th colspan="3">E3PVGoodPoorFit (PetrolOp)</th></tr>
<tr><th></th><th>Hypotheses</th><th>Positive Sentiment Group</th><th>Negative Sentiment Group</th></tr>
<tr><td>H_0:</td><td>$\mu_{PetrolOpGoodFit} = \mu_{PetrolOpPoorFit}$</td><td colspan="2">Cannot reject.
Mean difference =-0.185;
t(70)= -0.528; p=0.599 (two-tailed test)</td></tr>
<tr><td></td><td></td><td>Cannot reject.
Mean difference =0.050;
t(15)= 0.067; p=0.947 (two-tailed test)</td><td>Cannot reject.
Mean difference = -0.215;
t(53)= -0.528; p=0.599 (two-tailed test)</td></tr>
<tr><td>H_2:</td><td>$\mu_{PetrolOpGoodFit} < \mu_{PetrolOpPoorFit}$</td><td colspan="2">False.
PetrolOpGoodFit $\bar{x}$ =2.00 and PetrolOpPoorFit $\bar{x}$ =1.82</td></tr>
<tr><td></td><td></td><td>False.
PetrolOpGoodFit $\bar{x}$ =1.50
PetrolOpPoorFit $\bar{x}$ =1.50</td><td>False.
PetrolOpGoodFit $\bar{x}$ =2.08
PetrolOpPoorFit $\bar{x}$ =1.97</td></tr>
<tr><td>H_3:</td><td>$\sigma^2_{PetrolOpGoodFit} < \sigma^2_{PetrolOpPoorFit}$</td><td colspan="2">False.
σ^2 PetrolOpGoodFit = 1.655 and σ^2 PetrolOpPoorFit = 1.222</td></tr>
<tr><td></td><td></td><td>True.
σ^2 PetrolOpGoodFit = 0.333
σ^2 PetrolOpPoorFit = 1.192</td><td>False.
σ^2 PetrolOpGoodFit = 1.834
σ^2 PetrolOpPoorFit = 1.206</td></tr>
</table>

To assess if the GreenBizOp and PetrolOp scenarios, rather than the induced Regulatory Focus, were influencing the statistically significant different number of actions an analysis was done using Regulatory Fit. Separating the sample into three Regulatory Fit groups enabled a more robust analysis of consistency of group behaviour. The sizes of the three groups are shown in Table 6-47, followed by the descriptive data in Table 6-48. This is presented visually in Figure 6-14 with GreenBizOp (green) and PetrolOp (blue) within the same graph so that differences between the same Regulatory Fit groups can be compared.

Table 6-47: Sample grouped by Regulatory Fit for Event 3: Customer values changing

E3 PVGoodPoorFit	E3 PMGoodPoorFit	
	Poor Promotion Focus Fit	Good Promotion Focus Fit
Poor Prevention Focus Fit	28	72
Good Prevention Focus Fit	56	0

Table 6-48: Regulatory Fit and the mean number of actions chosen in two scenarios of Event 3

		Regulatory Fit	N	Mean	Std. Error	Std. Deviation
Total	GreenBizOp	Poor PM Poor PV	12	2.83	0.47	1.642
		Good PM Poor PV	44	2.70	0.25	1.636
		Poor PM Good PV	26	2.42	0.31	1.604
	PetrolOp	Poor PM Poor PV	16	1.63	0.20	0.806
		Good PM Poor PV	28	1.93	0.24	1.245
		Poor PM Good PV	30	2.00	0.23	1.287
Positive sentiment	GreenBizOp	Poor PM Poor PV	5	3.40	0.75	1.673
		Good PM Poor PV	12	3.00	0.48	1.651
		Poor PM Good PV	8	2.75	0.67	1.909
	PetrolOp	Poor PM Poor PV	5	1.00	0.00	0.00
		Good PM Poor PV	9	1.78	0.43	1.302
		Poor PM Good PV	4	1.50	0.29	0.577
Negative sentiment	GreenBizOp	Poor PM Poor PV	7	2.43	0.61	1.618
		Good PM Poor PV	32	2.59	0.29	1.643
		Poor PM Good PV	18	2.28	0.35	1.487
	PetrolOp	Poor PM Poor PV	11	1.91	0.25	0.831
		Good PM Poor PV	19	2.00	0.29	1.247
		Poor PM Good PV	26	2.08	0.27	1.354

Figure 6-14 shows there are aspects of commonality and difference in the behaviour of the three Regulatory Fit groups. Firstly, at the upper and lower extremes of the graph are the dotted lines representing the positive sentiment group. The positive sentiment group GreenBizOp have the highest mean scores in all three groups, while the positive sentiment group PetrolOp had the lowest mean scores in all three groups. This difference is most marked in Group 1 Poor PM Poor PV. In contrast, the negative sentiment group in both scenarios exhibit very similar behaviour, as illustrated by the dashed lines linking the three groups being close together and almost parallel.

Figure 6-14: Comparing actions taken by Regulatory Fit in Event 3 for each scenario
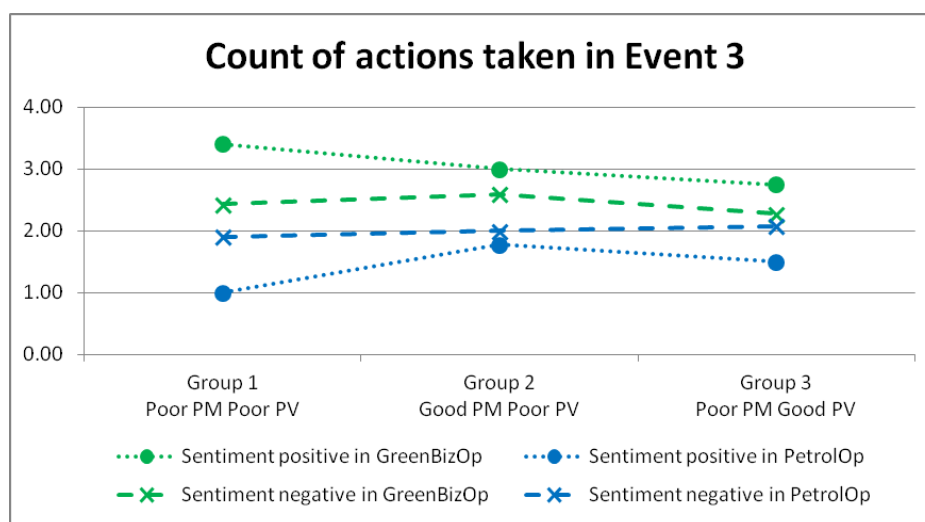
Note: Scale axis is magnified. Respondents could have chosen a maximum of nine actions.

ANOVA tests on the difference in mean number of actions in each Regulatory Fit group confirm that for the whole sample there was a statistically significant difference in the strategic behaviour of Group 1 (ANOVA, F=6.604, p=0.016). Statistically significant differences in the strategic behaviour of Group 2 Good PM Poor PV was also observed (ANOVA, F=4.593, p=0.036) but not for Group 3 Poor PM Good PV. In other words, those in Group 3 may have been less influenced by the induced scenario and acting more consistently with their preferred strategic behaviour, that is, Prevention Focused vigilant strategies.

When sentiment is taken into account, the induced scenario is seen to have had only a statistically significant influence on the strategic behaviour of Group 1 in the positive sentiment group (ANOVA, F=10.286 p=0.012). The absence of statistically significant differences between count of actions in GreenBizOp and PetrolOp in the larger negative

sentiment group, suggest that the induced scenario had a largely weak effect, and that the count of actions was a strategic response to other influences. One such influence could be a focus on an alternative strategic goal. Another possibility is that respondents did not deem the actions in the Event 3 scenarios appropriate responses.

Table 6-49: ANOVA comparing actions in Event 3 scenarios by Regulatory Fit group

	Regulatory Fit	GreenBizOp				PetrolOp				$F_{calc.}$ (p-value)
		N	Mean	Std. Dev.	Std. Error Mean	N	Mean	Std. Dev.	Std. Error Mean	
Total sample	Poor PM Poor PV	12	2.83	1.642	.474	16	1.63	.806	.202	**6.604 (0.016)**
	Good PM Poor PV	44	2.70	1.636	.247	28	1.93	1.245	.235	**4.593 (0.036)**
	Poor PM Good PV	26	2.42	1.604	.315	30	2.00	1.287	.235	1.198 (0.279)
Positive sentiment	Poor PM Poor PV	5	3.40	1.673	.748	5	1.00	.000	.000	**10.286 (0.012)**
	Good PM Poor PV	12	3.00	1.651	.477	9	1.78	1.302	.434	3.351 (0.083)
	Poor PM Good PV	8	2.75	1.909	.675	4	1.50	.577	.289	1.572 (0.238)
Negative sentiment	Poor PM Poor PV	7	2.43	1.618	.612	11	1.91	.831	.251	0.816 (0.380)
	Good PM Poor PV	32	2.59	1.643	.291	19	2.00	1.247	.286	1.843 (0.181)
	Poor PM Good PV	18	2.28	1.487	.351	26	2.08	1.354	.266	0.216 (0.645)

In conclusion, Event 3 was more successful than Event 2 in inducing strategic behaviour amongst respondents. The statistically significantly higher mean number of actions in GreenBizOp than PetrolOp support the claim that Regulatory Focus behaviour was induced. This is further supported by there being no statistically significant difference between poor and good fit, as it suggests preference or competence in a Regulatory Focus is not a barrier to respondents adopting an induced strategic behaviour. However, the low mean number of actions taken by those in the GreenBizOp group were not a strong demonstration of eager strategies, suggesting that other factors were also at play. The following section focuses on one such factor, the choice of actions that were presented and the take-up of actions, from Events 1, 2 and 3.

6.5 Analysis of businesses tapping into motility resources

The analysis in the previous section focused on the count of actions taken, this section focuses on the type of actions and their power to help businesses achieve their goals when access is changed. The analysis focuses on the choice of actions in relation to businesses capturing of motility, that is, creating business value from the new access resources. The analysis uses Regulatory Focus Fit to observe differences in the willingness of respondents to utilise the new access resources over traditional actions, including those that use car parking.

6.5.1 Event 1

Table 6-50 presents the frequency that actions were chosen in Event 1. The actions coded as traditional are coloured orange, and the actions using new access resources coded purple.

Table 6-50: Popularity of actions in Event 1: Mobility options added

Event1 actions		n exposed	Total sample		Positive sentiment (n=42)	Negative sentiment (n=112)
			Count	% chosen	% chosen	% chosen
1	Improve customer service	154	137	89.0	95.3	86.5
2	Offer discounts and special offers	154	74	48.1	51.2	46.8
3	Ask customers what they like	149	111	74.5	76.2	73.8
4	Promote public transport options	10	0	0.0	0.0	0.0
5	Ask Council for bike parking	154	25	16.2	18.6	15.3
6	Organise special events for regular customers	10	4	40.0	100.0	33.3
7	Reward customers for word-of-mouth	139	56	40.3	43.9	38.8
8	Market through window display	5	2	40.0	0.0	50.0
9	Target advertising along public transport route	144	59	41.0	47.6	38.2
10	Provide customer seating	144	50	34.7	31.0	36.3
11	Highlight added convenience of new transport options	64	23	35.9	42.9 (n=21)	32.6 (n=43)
12	No action needed	154	2	1.3	2.3	0.9

The two most popular actions were Action1 'improve customer service' (89 percent) and Action3 'ask customers what they like' (74.5 percent). Both are traditional and low-cost business strategies. Actions that tend to involve an outlay of monetary resources were chosen by 40-50 percent of respondents, including Action9 'target advertising along public transport

route' which uses new access resources. More than a third of respondents offered Action11 'highlight added convenience of new transport options' and Action10 'provide customer seating' chose them, with the later being more popular amongst Food Service businesses. Action5 'ask Council for bike parking' was chosen by 16.2 percent of respondents. The positive sentiment group had a greater willingness to use new access resources, but the difference was not statistically significant except for the two actions that were exposed to an insufficient number of respondents, Action6 and Action8.

Regulatory Fit was again used to compare business response. Comparative data for the proportion of actions using traditional resources, versus those using new access resources are presented in Table 6-51 and in Figure 6-15.

Table 6-51: Percentage of adaptive or traditional actions taken in Event 1 by Regulatory Fit

Event 1		Regulatory Fit	N	Mean	Std. Error	Std. Deviation
Total	New access resources used	Poor PM Poor PV	29	.336	.063	.337
		Good PM Poor PV	34	.294	.053	.307
		Poor PM Good PV	91	.288	.029	.280
	Traditional resources used	Poor PM Poor PV	29	.670	.041	.222
		Good PM Poor PV	34	.618	.055	.321
		Poor PM Good PV	91	.616	.028	.270
Positive sentiment	New access resources used	Poor PM Poor PV	6	.389	.159	.390
		Good PM Poor PV	10	.517	.117	.370
		Poor PM Good PV	27	.253	.049	.256
	Traditional resources used	Poor PM Poor PV	6	.708	.077	.188
		Good PM Poor PV	10	.725	.126	.399
		Poor PM Good PV	27	.630	.052	.272
Negative sentiment	New access resources used	Poor PM Poor PV	23	.322	.069	.331
		Good PM Poor PV	24	.201	.046	.226
		Poor PM Good PV	64	.302	.036	.290
	Traditional resources used	Poor PM Poor PV	23	.659	.049	.233
		Good PM Poor PV	24	.573	.057	.281
		Poor PM Good PV	64	.611	.034	.271

Figure 6-15 shows all businesses appear to favour actions that use more familiar resources than those actions that adaptively capture the motility value of new access options. Sentiment had very little effect on the use of traditional and new access actions in Group 1 Poor PM Poor PV and Group 3 Poor PM Good PV. Sentiment does have a discernable effect on the proportion of new access actions taken by respondents in Group 2 Good PM Poor PV. Those with a positive sentiment took more actions that tapped into the new access resources than the other two Regulatory Fit groups, those with a negative sentiment took less than the other two groups.

Figure 6-15: Use of traditional and new access resources compared in Event 1
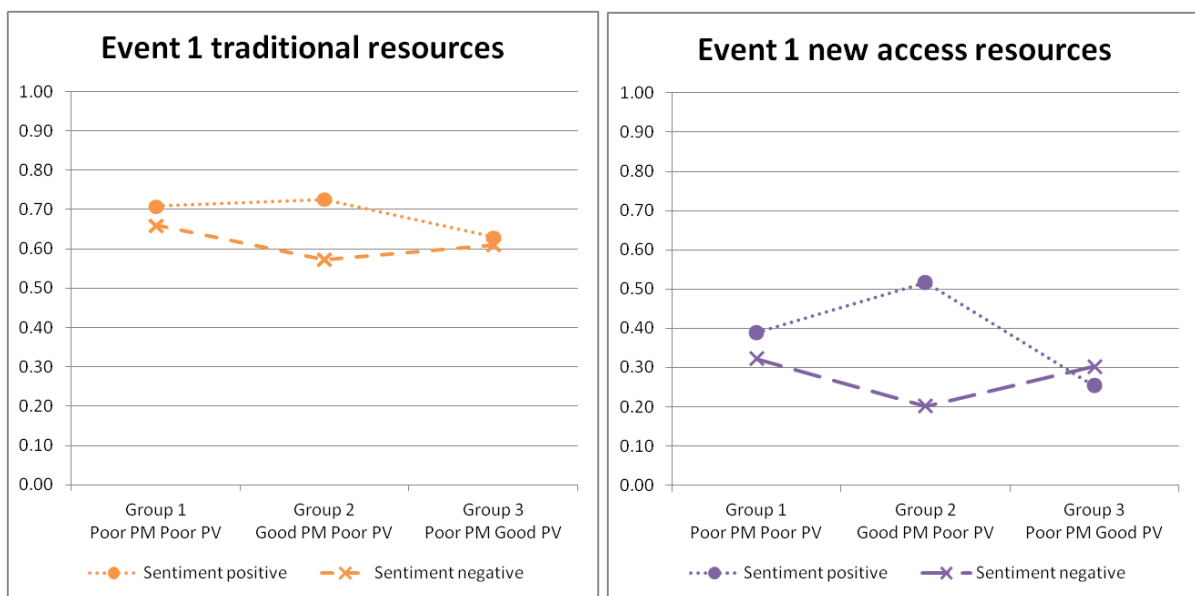
Despite these apparent effects there were no cases where Regulatory Fit had a statistically significant impact on the use of traditional or new access resources. ANOVA tests results are shown in Table 6-52. The absence of statistically significant difference amongst the three Regulatory Fit groups indicates that competence in goal-orientated strategies is unlikely to be the determining factor in Event 1 for how many traditional resource or new access resource actions a business is going to take. A summary of the hypotheses results are in Table 6-53.

Table 6-52: ANOVA tables examining differences between and within groups for Event 1

Event 1		ANOVA	Sum of squares	df	Mean Square	F	p-value
Total	New access resources used	Between groups	.053	2	.026	.299	.742
		Within groups	13.333	151	.088		
		Total	13.386	153			
	Traditional resources used	Between groups	.066	2	.033	.439	.646
		Within groups	11.326	151	.075		
		Total	11.392	153			
Positive sentiment	New access resources used	Between groups	.528	2	.264	2.861	.069
		Within groups	3.694	40	.092		
		Total	4.222	42			
	Traditional resources used	Between groups	.081	2	.040	.458	.636
		Within groups	3.530	40	.088		
		Total	3.610	42			
Negative sentiment	New access resources used	Between groups	.219	2	.109	1.331	.268
		Within groups	8.871	108	.082		
		Total	9.090	110			
	Traditional resources used	Between groups	.088	2	.044	.627	.536
		Within groups	7.615	108	.071		
		Total	7.703	110			

Table 6-53: Analysis of Event 1 hypotheses for differences in types of actions

		Event 1	
		Use of traditional resources	
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{E1Group1} = \mu_{E1Group2} = \mu_{E1Group3}$	Cannot reject at p=0.05 ANOVA, F=0.439 p=0.646	
		Cannot reject at p=0.05 ANOVA, F=0.458 p=0.636	Cannot reject at p=0.05 ANOVA, F=0.627 p=0.536
H_1:	$\mu_{E1Group1} > \mu_{E1Group2}$	True. E1Group1 $\bar{x}$=0.670 and E1Group2 $\bar{x}$=0.618	
		False. E1Group1 $\bar{x}$=0.708 and E1Group2 $\bar{x}$=0.725	True. E1Group1 $\bar{x}$=0.659 and E1Group2 $\bar{x}$=0.573
H_2:	$\mu_{E1Group1} > \mu_{E1Group3}$	True. E1Group1 $\bar{x}$=0.670 and E1Group3 $\bar{x}$=0.616	
		True. E1Group1 $\bar{x}$=0.708 and E1Group3 $\bar{x}$=0.630	True. E1Group1 $\bar{x}$=0.708 and E1Group3 $\bar{x}$=0.611
		Use of new access resources	
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{E1Group1} = \mu_{E1Group2} = \mu_{E1Group3}$	Cannot reject at p=0.05 ANOVA, F=0.299 p=0.742	
		Cannot reject at p=0.05 ANOVA, F=2.861 p=0.069	Cannot reject at p=0.05 ANOVA, F=1.331 p=0.268
H_1:	$\mu_{E1Group1} < \mu_{E1Group2}$	False. E2Group1 $\bar{x}$=0.336 and E2Group2 $\bar{x}$=0.294	
		True. E2Group1 $\bar{x}$=0.389 and E2Group2 $\bar{x}$=0.517	False. E2Group1 $\bar{x}$=0.322 and E2Group2 $\bar{x}$= 0.201
H_2:	$\mu_{E1Group1} < \mu_{E1Group3}$	False. E2Group1 $\bar{x}$=0.336 and E2Group3 $\bar{x}$=0.288	
		False. E2Group1 $\bar{x}$=0.389 and E2Group3 $\bar{x}$=0.253	False. E2Group1 $\bar{x}$=0.322 and E2Group3 $\bar{x}$=0.302

6.5.2 Event 2

As reported in Section 6.4.1.2, the news in Event 2 that parking was to be removed led to a drop in the number of actions businesses took. The groups exposed to the NoPark1 and NoPark2 scenarios were presented with the same set of actions, though only those recruited in the second phase of data collection (n=64) were offered Action8 'adapt business strategies to use new access options'. As reported in Section 6.4.1.2, the scenarios in NoPark1 and NoPark2 had some success in inducing respondents to behave in accordance with the Regulatory Focus model. Analysis of the use of actions shows that there is no difference amongst Regulatory Fit groups for the take-up of new access resources, but there are in regards to more traditional resources.

Table 6-54 presents the actions colour-coded as traditional or new access resource actions and the frequency that respondents chose them. The most popular, Action4 'provide customers with information about good places to park', is categorised as a traditional action as maintains the expectation that cars will be the preferred mode of customer travel. Action6 'create new advertising material that shows where to find parking' is very similar but was less popular, possibly as it requires an outlay of money.

When the popularity of different actions are compared amongst the induced scenarios it is observed that NoPark2 often had a higher number of respondents choosing actions than NoPark1. This is contrary to expectations that an induced Prevention Focus and associated vigilant strategies would manifest as respondents choosing less actions. The NoPark2 induced goal-task asked respondents to chose actions that 'ought to do to avoid the business failing' which showed a higher use of four of the five traditional resource actions, though only Action6 was found to vary statistically significantly (Pearson Chi-square 5.892 p=0.015 two-tailed test). Moreover, more NoPark2 respondents chose the new access resource actions 'provide customer seating' (Action5) and 'adapt business to use transport options' (Action8) than NoPark1, though not at a statistically significant level.

When split by sentiment, some subtle differences emerge. The NoPark1 goal-task was to choose actions that the respondent thought 'would help the business survive'. Amongst the positive sentiment group NoPark1 led the use of four actions, two of which were traditional. NoPark2 led the use of the remaining four actions, which included again Action8. Amongst the negative sentiment group, the only action more popular in NoPark1 was traditional

Action7 'to create customer parking by converting space normally used for storage', though again the difference was not significant in a statistical sense. NoPark2's preference for Action6 in the negative sentiment group was statistically significant (Pearson Chi-square 7.022 p=0.008 two-tailed test).

The new access actions each attracted close to a third of respondents, with Action8 being statistically significantly more popular amongst respondents in the positive sentiment group (Pearson Chi-square 6.190 p=0.013 two-tailed test). This level of popularity for the new access actions in Event 2 represents a slight rise compared to Event 1 (Event 1 $\bar{x}$ =0.298 SD=0.296; Event2 $\bar{x}$ =0.325 SD=0.319). The drop in number of actions taken had its greatest effect on the proportion of traditional actions that businesses chose (Event 1 $\bar{x}$ =0.626 SD=0.273; Event 2 $\bar{x}$ =0.345 SD=0.251). However it is noteworthy that the popularity of many of the traditional actions did not vary statistically significantly between the positive sentiment and negative sentiment groups, indicating an overall preference amongst respondents to maintain a mixed strategy approach.

Table 6-54: Popularity of actions in Event 2: parking removed

Event2 actions	Total sample					Positive sentiment (n=42)			Negative sentiment (n=112)		
	n exposed	Count	% chosen	NoPark1 (n=79) % chosen	NoPark2 (n=75) % chosen	% chosen	NoPark1 (n=21) % chosen	NoPark2 (n=21) % chosen	% chosen	NoPark1 (n=58) % chosen	NoPark2 (n=54) % chosen
1 Contact Council on behalf of customers who don't like the change to parking	154	56	36.4	32.9	40.0	26.2	23.8	28.6	40.2	36.2	44.4
2 Refund parking costs when customers spend over a set amount	154	27	17.5	16.5	18.7	21.4	23.8	19.0	16.1	13.8	18.5
3 Offer a delivery service to customers	154	55	35.7	38.0	33.3	38.1	47.6	28.6	34.8	34.5	35.2
4 Provide customers with information about good places to park	154	95	61.7	59.5	64.0	61.9	57.1	66.7	61.6	60.3	63.0
5 Utilise the extra pavement outside the shop to provide customer seating	154	45	29.2	26.6	32.0	21.4	23.8	19.0	32.1	27.6	37.0
6 Create new advertising material that shows where to find parking	154	55	35.7	26.6	45.3	35.7	33.3	38.1	35.7	24.1	48.1
7 Create customer parking by converting space normally used for storage or staff parking	154	33	21.4	26.6	16.0	11.9	19.0	4.8	25.0	29.3	20.4
8 Adapt business strategies to use new transport options	63	21	33.3	11.4 (n=30)	16.0 (n=33)	55.0 (n=20)	23.8 (n=9)	28.6 (n=24)	23.3 (n=43)	6.9 (n=11)	11.1 (n=19)
9 No action needed	154	15	9.7	10.1	9.3	14.3	14.3	14.3	8.0	8.6	7.4

Shaded boxes indicate the cases where there was a statistically significant difference in the count of actions between compared groups. Details of the difference are below.

		Groups compared	Pearson χ2	p-value (two-tailed)	Groups compared	Pearson χ2	p-value (two-tailed)	
6	Create new advertising material that shows where to find parking	Total sample NoPark1/NoPark	5.892	0.015	Negative sentiment NoPark1/NoPark	7.022	0.008	
8	Adapt business strategies to use new transport options	Total sample Positive/negative sentiment	6.190	0.013				

Variations were observed amongst the three Regulatory Focus groups and the percentage of traditional actions and new access actions they chose. ANOVA tests (see Table 6-56) found overall differences between the three Regulatory Fit groups were statistically significant for the use of traditional actions (ANOVA, F=40184 p=0.017). Moreover, those with a poor Regulatory Fit on both Promotion Focus and Prevention Focus (Group 1 Poor PM Poor PV) had a greater take-up of traditional actions than the other two Regulatory Fit groups. Differences between the Regulatory Fit groups were also found to be statistically significant for the negative sentiment group (ANOVA, F=4.561 p=0.013), with the greatest difference being between Group 1 (Poor PM and Poor PV) and Group 2 (Good PM Poor PV). There was no statistically significant difference amongst the positive sentiment group for their use of traditional resources (ANOVA, F=0.887 p=0.420), though as expected Group 1 Poor PM Poor PV had the highest take-up of traditional actions. These differences are illustrated in Figure 6-16.

Figure 6-16: Use of traditional and new access resources compared in Event 2
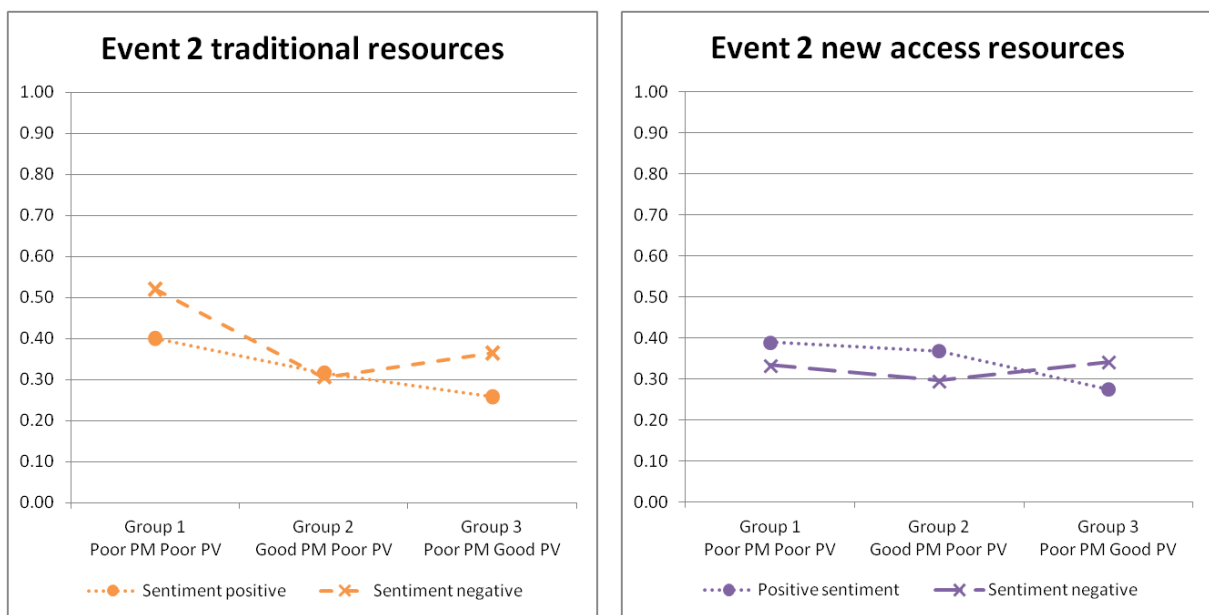
In regards to the use of new access resources, Regulatory Fit had no statistically significant effect on the whole sample (ANOVA, F=0.136 p=0.873) or when the sample was split by sentiment. This absence of statistical significance in the data, suggests that the induced goal-tasks was just as effective in encouraging take-up of new access resources amongst the respondents with Poor Fit, as they were amongst respondents with a Good Fit.

Although the take-up of new access actions was modest, the results are encouraging in light of the drop of actions taken overall in Event 2. Of the three new access actions available for businesses to take, on average at least one was chosen. The data used to compare the proportion of traditional and new access actions by Regulatory Fit and sentiment are presented in Table 6-55.

Table 6-55: Percentage of adaptive or traditional actions taken in Event 2 by Regulatory Fit

Event 2		Regulatory Fit	N	Mean	Std. Error	Std. Deviation
Total	New access resources used	Poor PM Poor PV	24	.354	.062	.304
		Good PM Poor PV	72	.315	.036	.308
		Poor PM Good PV	58	.325	.045	.341
	Traditional resources used	Poor PM Poor PV	24	.475	.052	.256
		Good PM Poor PV	72	.308	.026	.217
		Poor PM Good PV	58	.338	.036	.273
Positive sentiment	New access resources used	Poor PM Poor PV	9	.389	.115	.344
		Good PM Poor PV	19	.368	.074	.368
		Poor PM Good PV	14	.274	.081	.304
	Traditional resources used	Poor PM Poor PV	9	.400	.088	.265
		Good PM Poor PV	19	.316	.056	.243
		Poor PM Good PV	14	.257	.068	.253
Negative sentiment	New access resources used	Poor PM Poor PV	15	.333	.075	.289
		Good PM Poor PV	53	.296	.042	.304
		Poor PM Good PV	44	.341	.053	.354
	Traditional resources used	Poor PM Poor PV	15	.520	.064	.248
		Good PM Poor PV	53	.306	.029	.210
		Poor PM Good PV	44	.364	.042	.277

Table 6-56: ANOVA tables examining differences between and within groups for Event 2

Event 2		ANOVA	Sum of squares	df	Mean Square	F	p-value
Total	New access resources used	Between groups	.028	2	.014	.136	.873
		Within groups	15.516	151	.103		
		Total	15.544	153			
	Traditional resources used	Between groups	.505	2	.253	4.184	**.017**
		Within groups	9.117	151	.060		
		Total	9.622	153			
Positive sentiment	New access resources used	Between groups	.098	2	.049	.477	.624
		Within groups	4.010	39	.103		
		Total	4.109	41			
	Traditional resources used	Between groups	.112	2	.056	.887	.420
		Within groups	2.460	39	.063		
		Total	2.571	41			
Negative sentiment	New access resources used	Between groups	.053	2	.027	.255	.775
		Within groups	11.367	109	.104		
		Total	11.420	111			
	Traditional resources used	Between groups	.540	2	.270	4.561	**.013**
		Within groups	6.454	109	.059		
		Total	6.994	111			

In summary, the moderating effect of Regulatory Fit was found to be statistically significant only in the use of traditional resources, and more specifically amongst the negative sentiment group. In line with expectations, those with a Poor Fit on both Regulatory Focus dimensions (Group 1) chose more traditional actions than those with a Good Fit (Group 2 and Group 3), thereby providing grounds to reject the null hypothesis and accept the alternative in the case of traditional resources. The null hypothesis could not be rejected for the use of new access resources. The statistically insignificant differences amongst the Regulatory Fit groups indicate that the appeal of taking actions that use the new access is not restricted to those who have preference for Promotion Focus strategies or Prevention Focus strategies. That is, even those with lower goal-attainment competence can be receptive to the take-up of actions that tap into new access resources. A summary of the outcomes of the hypotheses are shown in Table 6-57.

Table 6-57: Analysis of Event 2 hypotheses for differences in types of actions

		Event 2	
		Use of traditional resources	
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{E2Group1} = \mu_{E2Group2} = \mu_{E2Group3}$	Reject H_0. ANOVA, F=4.184, p=0.017 Power eta = .229	
		Cannot reject. ANOVA, F=0.887, p=0.420	Reject H_0. ANOVA, F=4.561, p=0.013 Power eta = .278
H_1:	$\mu_{E2Group1} > \mu_{E2Group2}$	True. E2Group2 $\bar{x}$=0.475 and E2Group2 $\bar{x}$=0.308	
		True. E2Group1 $\bar{x}$=0.400 and E2Group3 $\bar{x}$=0.316	True. E2Group1 $\bar{x}$=0.520 and E2Group2 $\bar{x}$=0.306
H_2:	$\mu_{E2Group1} > \mu_{E2Group3}$	True. E2Group1 $\bar{x}$=0.475 and E2Group3 $\bar{x}$=0.338	
		True. E2Group1 $\bar{x}$=0.400 and E2Group3 $\bar{x}$=0.257	True. E2Group1 $\bar{x}$=0.520 and E2Group3 $\bar{x}$=0.364
		Use of new access resources	
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{E2Group1} = \mu_{E2Group2} = \mu_{E2Group3}$	Cannot reject. ANOVA, F=0.136, p=0.873	
		Cannot reject. ANOVA, F=0.477, p=0.624	Cannot reject. ANOVA, F=0.255, p=0.775
H_1:	$\mu_{E2Group1} < \mu_{E2Group2}$	False. E2Group1 $\bar{x}$=0.354 and E2Group2 $\bar{x}$=0.315	
		False. E2Group1 $\bar{x}$=0.389 and E2Group2 $\bar{x}$=0.368	False. E2Group1 $\bar{x}$=0.333 and E2Group2 $\bar{x}$=0.296
H_2:	$\mu_{E2Group1} < \mu_{E2Group3}$	False. E2Group1 $\bar{x}$=0.354 and E2Group3 $\bar{x}$=0.325	
		False. E2Group1 $\bar{x}$=0.389 and E2Group3 $\bar{x}$=0.274	True. E2Group1 $\bar{x}$=0.333 and E2Group3 $\bar{x}$=0.341

6.5.3 Event 3

In Event 3, GreenBizOp and PetrolOp were used to test the effect of positively framing opportunities in encouraging businesses to tap into new access resources. As reported in Section 6.4.2, the number of actions respondents were willing to take in Event 3 was very low. Examination of the actions respondents chose, identifies that the actions using new access resources were amongst the more popular, especially in the PetrolOp group. Positive framing of the scenario goal-task may have had a motivating effect on respondents, irrespective of Regulatory Fit.

The GreenBizOp respondents were presented with ten actions. The popularity of these actions and their categorisation as traditional or new access actions are shown in Table 6-58. All the actions were contextualised to the scenario of customers placing greater value on green business. Consistent with the scenario proposition, respondents chose a number of green friendly actions. The green-friendly actions coded as using new access resources are those that reduce car trips, encourage other modes of travel. In the case of Action3, being part of a shop locally campaign is coded as new access resource as it is targeting a customer base in walking/cycling/public transport distance.

Table 6-58: Popularity of actions in Event 3: GreenBizOp

	Event3 GreenBizOp actions	n exposed	Total sample		Positive sentiment (n=25)	Negative sentiment (n=57)
			Count	% chosen	% chosen	% chosen
1	Publicise green business actions	82	27	32.9	40.0	29.8
2	Try become a bike ride destination	82	17	20.7	24.0	19.3
3	Be part of shop local campaign	82	35	42.7	48.0	40.4
4	Change to eco-friendly bags	82	41	50.0	60.0	45.6
5	Wait and see what others do	82	6	7.3	16.0	3.5
6	Join local car share	82	4	4.9	0.0	7.0
7	Reduce resource consumption	82	47	57.3	56.0	57.9
8	Check products are eco-friendly	82	22	26.8	44.0	19.3
9	Buy bulk to reduce costs	82	12	14.6	12.0	15.8
10	No action needed	82	5	6.1	0.0	8.8
		Pearson $\chi 2$		p-value (two-tailed)		
5	Wait and see what others do	3.998		0.046		
8	Check products are eco-friendly	5.401		0.020		

Respondents did not use the information that customer's had a preference for green businesses as a motivator to increase their use of new access resources over traditional resources. Traditional actions were favoured amongst the positive sentiment group for all three Regulatory Fit groups. In the negative sentiment group, there was a reduction in traditional actions, though those in Group 1 Poor PM Poor PV maintained a higher preference for traditional actions than actions using new access resources, which was close to zero (see Figure 6-17). The data for percentage of use amongst different Regulatory Fit groups and by sentiment are shown in Table 6-59.

Figure 6-17: Use of traditional and new access resources compared in Event 3 GreenBizOp
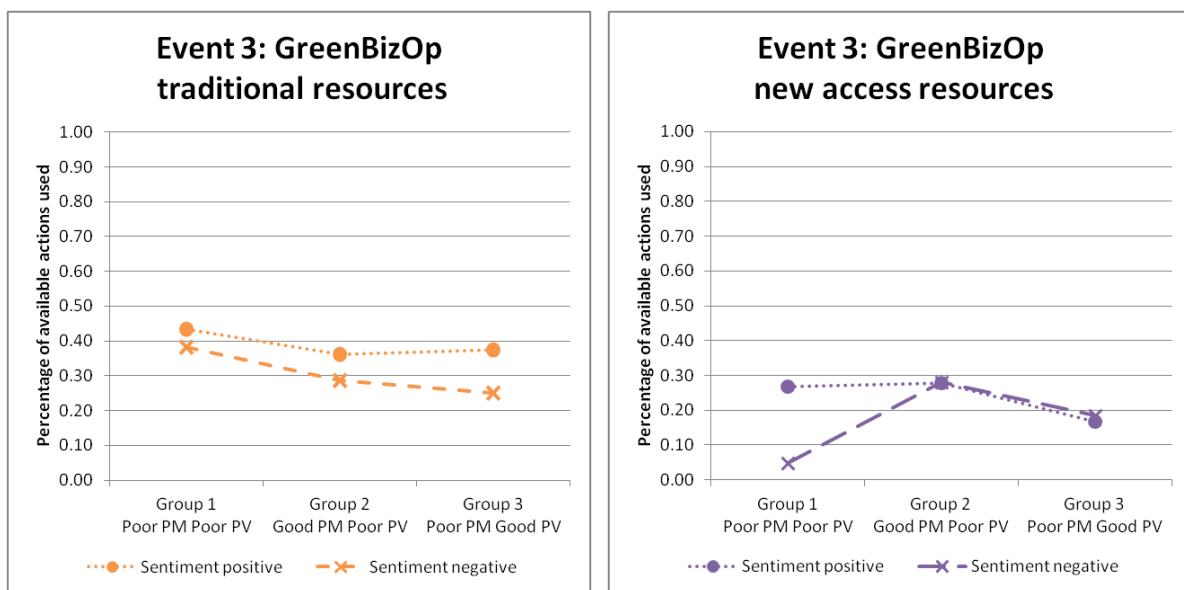
Event 3: GreenBizOp		Regulatory Fit	N	Mean	Std. Error	Std. Deviation
Total	New access resources used	Poor PM Poor PV	12	.139	.064	.223
		Good PM Poor PV	44	.280	.043	.287
		Poor PM Good PV	26	.179	.050	.254
	Traditional resources used	Poor PM Poor PV	12	.403	.063	.219
		Good PM Poor PV	44	.307	.029	.190
		Poor PM Good PV	26	.288	.050	.256
Positive sentiment	New access resources used	Poor PM Poor PV	5	.267	.125	.279
		Good PM Poor PV	12	.278	.080	.278
		Poor PM Good PV	8	.167	.063	.178
	Traditional resources used	Poor PM Poor PV	5	.433	.067	.149
		Good PM Poor PV	12	.361	.054	.186
		Poor PM Good PV	8	.375	.121	.342
Negative sentiment	New access resources used	Poor PM Poor PV	7	.048	.048	.126
		Good PM Poor PV	32	.281	.052	.295
		Poor PM Good PV	18	.185	.067	.285
	Traditional resources used	Poor PM Poor PV	7	.381	.101	.267
		Good PM Poor PV	32	.286	.034	.190
		Poor PM Good PV	18	.250	.049	.208

The analysis of statistically significant differences amongst the Regulatory Fit groups is compromised by the small sample sizes. Although there were 82 respondents exposed to GreenBizOp the sub-sample groups are very small, especially for the positive sentiment group. The moderating effect of Regulatory Fit, if it exists, is not present in the data for the GreenBizOp induced scenario.

Event 3: GreenBizOp		ANOVA	Sum of squares	df	Mean Square	F	p-value
Total	New access resources used	Between groups	.277	2	.138	1.920	.153
		Within groups	5.696	79	.072		
		Total	5.973	81			
	Traditional resources used	Between groups	.114	2	.057	1.207	.304
		Within groups	3.720	79	.047		
		Total	3.834	81			
Positive sentiment	New access resources used	Between groups	.064	2	.032	.506	.610
		Within groups	1.385	22	.063		
		Total	1.449	24			
	Traditional resources used	Between groups	.019	2	.009	.160	.853
		Within groups	1.288	22	.059		
		Total	1.307	24			
Negative sentiment	New access resources used	Between groups	.350	2	.175	2.264	.114
		Within groups	4.169	54	.077		
		Total	4.519	56			
	Traditional resources used	Between groups	.086	2	.043	1.020	.368
		Within groups	2.289	54	.042		
		Total	2.375	56			

A summary of the findings against the hypotheses is in Table 6-61.

Table 6-61: Analysis of hypotheses for differences in types of actions in Event 3 GreenBizOp

		Event 3: GreenBizOp	
		Use of traditional resources	
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{E3Group1} = \mu_{E3Group2} = \mu_{E3Group3}$	Cannot reject. ANOVA, F=1.207, p=0.304	
		Cannot reject. ANOVA, F=0.160, p=0.853	Cannot reject. ANOVA, F=1.020, p=0.368
H_1:	$\mu_{E3Group1} > \mu_{E3Group2}$	True. E3Group1 $\bar{x}$=0.403 and E3Group2 $\bar{x}$=0.307	
		True. E3Group1 $\bar{x}$=0.433 and E3Group2 $\bar{x}$=0.375	True. E3Group1 $\bar{x}$=0.381 and E3Group2 $\bar{x}$=0.250
H_2:	$\mu_{E3Group1} > \mu_{E3Group3}$	True. E3Group1 $\bar{x}$=0.403 and E3Group3 $\bar{x}$=0.288	
		True. E3Group1 $\bar{x}$=0.433 and E3Group3 $\bar{x}$=0.375	True. E3Group1 $\bar{x}$=0.381 and E3Group3 $\bar{x}$=0.250
		Use of new access resources	
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{E3Group1} = \mu_{E3Group2} = \mu_{E3Group3}$	Cannot reject. ANOVA, F=1.920, p=0.153	
		Cannot reject. ANOVA, F=0.506, p=0.610	Cannot reject. ANOVA, F=2.264, p=0.114
H_1:	$\mu_{E3Group1} > \mu_{E3Group2}$	False. E3Group1 $\bar{x}$=0.139 and E3Group2 $\bar{x}$=0.280	
		False. E3Group1 $\bar{x}$=0.267 and E3Group2 $\bar{x}$=0.278	False. E3Group1 $\bar{x}$=0.048 and E3Group2 $\bar{x}$=0.281
H_2:	$\mu_{E3Group1} > \mu_{E3Group3}$	False. E3Group1 $\bar{x}$=0.139 and E3Group3 $\bar{x}$=0.179	
		True. E3Group1 $\bar{x}$=0.267 and E3Group3 $\bar{x}$=0.167	False. E3Group1 $\bar{x}$=0.048 and E3Group3 $\bar{x}$=0.185

Ten actions were also presented to the PetrolOp group. The relative popularity of the actions is presented in Table 6-62. The four traditional resource actions were amongst the least popular. Respondents instead favoured 'being part of a shop locally campaign' (Action8) which was selected by more than half of the PetrolOp negative sentiment group, and a third

of the positive sentiment group. All actions, barr the 'no action' option were more popular amongst the negative sentiment group than the positive sentiment group, but not in a statistically significant way.

Table 6-62: Popularity of actions in Event 3: PetrolOp

	Event3 PetrolOp actions	n exposed	Total sample		Positive sentiment (n=18)	Negative sentiment (n=56)
			Count	% chosen	% chosen	% chosen
1	Join local car share	74	6	8.1	5.6	8.9
2	Reduce trips to suppliers	74	18	24.3	22.2	25.0
3	Raise prices	74	9	12.2	5.6	14.3
4	Cut staff hours	74	7	9.5	5.6	10.7
5	Try become a bike ride destination	74	13	17.6	16.7	17.9
6	Contribute to bad news story	74	5	6.8	0.0	8.9
7	Help finance town radio advert	74	5	6.8	5.6	7.1
8	Be part of shop local campaign	74	35	47.3	33.3	51.8
9	Develop and increase online business	74	26	35.1	22.2	39.3
10	No action needed	74	16	21.6	33.3	17.9

Figure 6-18: Use of traditional and new access resources compared in Event 3 PetrolOp
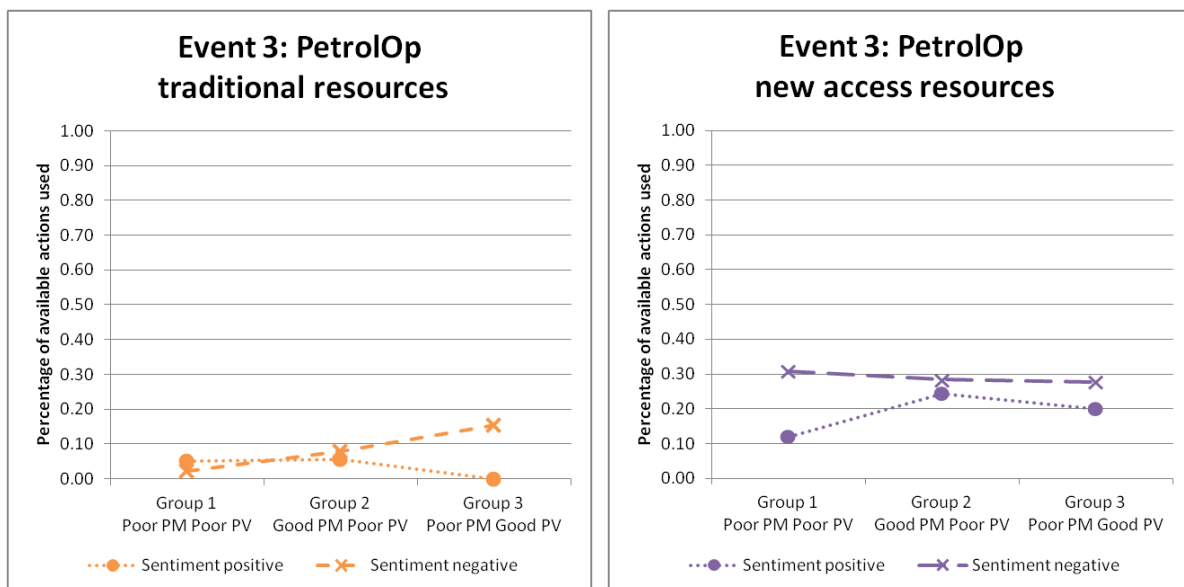
Contrary to the Promotion Focused induced scenario of GreenBizOp, the Prevention Focused induced goal-task shows an abandonment of traditional actions. Take-up instead focused on

the use of new access resources, especially amongst the negative sentiment group. This is illustrated in Figure 6-18. This preference to use new access resource actions over traditional actions can be understood in the context of the scenario, which is that that customers are reducing their car use due to concern about petrol costs. Whilst in NoPark2, Prevention Focus vigilant strategies appeared to favour a mixed approach, in PetrolOp this changed to a focus on only one approach.

Analysis of mean scores confirms that there was no statistically significant difference in how respondents with different Regulatory Fit reacted. Moreover, there was no statistical difference between how positive and negative sentiment groups responded. Again, small sample size in the compared sub-groups for PetrolOp compromises the ability to find statistically significant differences.

Table 6-63: Percentage of adaptive or traditional actions taken in Event 3 PetrolOp by Regulatory Fit

Event 3: PetrolOp		Regulatory Fit	N	Mean	Std. Error	Std. Deviation
Total	New access resources used	Poor PM Poor PV	16	.250	.056	.225
		Good PM Poor PV	28	.271	.054	.284
		Poor PM Good PV	30	.267	.036	.199
	Traditional resources used	Poor PM Poor PV	16	.031	.021	.085
		Good PM Poor PV	28	.071	.025	.134
		Poor PM Good PV	30	.133	.037	.205
Positive sentiment	New access resources used	Poor PM Poor PV	5	.120	.049	.110
		Good PM Poor PV	9	.244	.114	.343
		Poor PM Good PV	4	.200	.115	.231
	Traditional resources used	Poor PM Poor PV	5	.050	.050	.112
		Good PM Poor PV	9	.056	.037	.110
		Poor PM Good PV	4	.000	.000	.000
Negative sentiment	New access resources used	Poor PM Poor PV	11	.309	.073	.243
		Good PM Poor PV	19	.284	.060	.261
		Poor PM Good PV	26	.277	.039	.197
	Traditional resources used	Poor PM Poor PV	11	.023	.023	.075
		Good PM Poor PV	19	.079	.033	.146
		Poor PM Good PV	26	.154	.042	.213

Table 6-64: ANOVA tables examining differences between and within groups for Event 3 PetrolOp

Event 3: PetrolOp		**ANOVA**	**Sum of squares**	**df**	**Mean Square**	**F**	**p-value**
Total	New access resources used	Between groups	.005	2	.002	.042	.959
		Within groups	4.084	71	.058		
		Total	4.089	73			
	Traditional resources used	Between groups	.121	2	.060	2.373	.101
		Within groups	1.808	71	.025		
		Total	1.929	73			
Positive sentiment	New access resources used	Between groups	.050	2	.025	.325	.728
		Within groups	1.150	15	.077		
		Total	1.200	17			
	Traditional resources used	Between groups	.009	2	.005	.460	.640
		Within groups	.147	15	.010		
		Total	.156	17			
Negative sentiment	New access resources used	Between groups	.008	2	.004	.077	.926
		Within groups	2.781	53	.052		
		Total	2.789	55			
	Traditional resources used	Between groups	.149	2	.075	2.512	.091
		Within groups	1.573	53	.030		
		Total	1.722	55			

A summary of the findings against the hypotheses is shown in Table 6-65.

Table 6-65: Analysis of hypotheses for differences in types of actions in Event 3 PetrolOp

	Event 3: PetrolOp		
	Use of traditional resources		
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{E3Group1} = \mu_{E3Group2} = \mu_{E3Group3}$	Cannot reject. ANOVA, F=2.373, p=0.101	
		Cannot reject. ANOVA, F=0.460, p=0.640	Cannot reject. ANOVA, F=2.512, p=0.091
H_1:	$\mu_{E3Group1} > \mu_{E3Group2}$	False. E3Group1 $\bar{x}$=0.031 and E3Group2 $\bar{x}$=0.071	
		False. E3Group1 $\bar{x}$=0.050 and E3Group2 $\bar{x}$=0.056	False. E3Group1 $\bar{x}$=0.023 and E3Group2 $\bar{x}$=0.079
H_2:	$\mu_{E3Group1} > \mu_{E3Group3}$	True. E3Group1 $\bar{x}$=0.031 and E3Group3 $\bar{x}$=0.133	
		False. E3Group1 $\bar{x}$=0.050 and E3Group3 $\bar{x}$=0.000	False. E3Group1 $\bar{x}$=0.023 and E3Group3 $\bar{x}$=0.154
	Use of new access resources		
	Hypotheses	**Positive Sentiment Group**	**Negative Sentiment Group**
H_0:	$\mu_{E3Group1} = \mu_{E3Group2} = \mu_{E3Group3}$	Cannot reject. ANOVA, F=0.042, p=0.959	
		Cannot reject. ANOVA, F=0.325, p=0.728	Cannot reject. ANOVA, F=0.077, p=0.926
H_1:	$\mu_{E3Group1} < \mu_{E3Group2}$	True. E3Group1 $\bar{x}$=0.250 and E3Group2 $\bar{x}$=0.271	
		True. E3Group1 $\bar{x}$=0.120 and E3Group2 $\bar{x}$=0.244	False. E3Group1 $\bar{x}$=0.309 and E3Group2 $\bar{x}$=0.284
H_2:	$\mu_{E3Group1} < \mu_{E3Group3}$	True. E3Group1 $\bar{x}$=0.250 and E3Group2 $\bar{x}$=0.267	
		True. E3Group1 $\bar{x}$=0.120 and E3Group2 $\bar{x}$=0.200	False. E3Group1 $\bar{x}$=0.309 and E3Group2 $\bar{x}$=0.277

Evaluation of the Event 3 scenario suggests that GreenBizOp was less effective than PetrolOp. The induced scenarios attempted to encourage the take-up of the new motility in different ways. The induced goal-task in GreenBizOp sought to motivate respondents to adapt by providing information about a potential opportunity: to attract the green consumer.

The PetrolOp goal-task sought to motivate by providing information about a potential threat: rising petrol prices. The link between changing green consumer values and the strategic value of new access resources may have been too weak for businesses, and traditional actions as more appropriate strategic responses. An alternative may have been to focus on new opportunity of gaining the loyalty of a consumer using the new access, which could have included parents with prams, cyclists, commuters or tourists.

The acceptance of new access resources as an appropriate strategic response, more generally, is encouraging. Three new access resource actions were presented to both GreenBizOp and PetrolOp. No statistically significant differences were observed between the two groups, see Table 6-66. 'Joining the local car share' was equally unpopular, 'becoming a bike destination' was moderately popular in equal measures, and 'being part of a shop locally campaign' attracted almost half of respondents interest in both GreenBizOp and PetrolOp. Although the less radical of all the options, its popularity suggests amongst both induced scenarios suggests it is the most palatable adaptive action to the large proportion of respondents.

Table 6-66: Comparative popularity of new access actions in GreenBizOp and PetrolOp

	GreenBizOp (n=82)			PetrolOp (n=74)			Fcalc.	P-value
	Count	%	standard error	Count	%	standard error		
Try become a bike ride destination	17	20.7	0.045	13	17.6	0.045	0.248	0.619
Be part of shop local campaign	35	42.7	0.055	35	47.3	0.058	0.671	0.414
Join local car share	4	4.9	0.024	6	8.1	0.032	0.331	0.556

6.6 Conclusion

The Town Centre Business Survey tested the applied value of Regulatory Focus as a means to understand the perceptions, motivations and actions of businesses when confronted with disruptions to the accessibility features of their business street. A number of perspectives were used in the analysis of business response, these were the analysis of perceptions and motivations; the analysis of town centre context; and the analysis of the strategic approach used by individuals grouped by goal orientation and town centre.

Six items were used to measure perception of impacts against two models. The first model focused on concern about customer attractiveness, business competitiveness and town centre attractiveness. The second model focused on sensitivity to Regulatory Focus concerns to ascertain if differences in goal competencies, measured by Regulatory Fit, results in different sensitivities to Promotion Focus concerns about business opportunity and Prevention Focus concerns about business security. The results from the survey identify that businesses were largely positive about the changes to access as they relate to the attraction of customers to the business and the town centre. Perceptions about business competitiveness was less straightforward. Businesses perceived improved accessibility options would add competitive advantages to their business but would also attract more competitors to their town centre. While there was some variation amongst businesses and by the relative Motility of town centre environments these were not statistically significant or aligned to theoretical expectations.

The business goal respondents chose as being of most importance was used to determine their goal motivation in Event 1. Two-thirds of respondents' choose the Prevention Focused goal 'to strengthen the business' over the Promotion Focused goal 'to grow the business'. The hypothesis that RFSS scores would be a determinant of business goal were unsupported. Although endorsement of Prevention Focus vigilant strategies was statistically significant for business size (ANOVA, F=2.677 p=0.049) with small businesses with 1-4 staff distinct from the other categories, business size was not statistically significant in choice of business goal. The large number of small businesses with 1-4 staff who chose the Prevention Focus goal being found to be proportionate to other business size categories. The choice of business goal is instead likely to be a reflection of the competitive environment businesses operate in, and more broadly the state of the economy. Data collected about businesses' financial well-being found that those who choose the Prevention Focused business goal assessed business to be

worse than before the GFC in 2007 compared to those who chose the Promotion Focused goal (ANOVA, F=4.123 p=0.045). This finding implies that economic factors were a greater determinant with businesses more likely to contemplate business growth if they felt they had recovered their financial position to a level equal to before the GFC.

The Regulatory Focus model of eagerness approaches versus vigilance approaches was then used with Regulatory Fit to analyse the number of actions taken by respondents in each scenario. For Event 1 there were indications that the positive sentiment group acted more consistently to the Regulatory Focus model with those in the Good Promotion Focus Fit demonstrating eagerness while the Good Prevention Focus Fit demonstrated vigilance. Respondent's behaviour however became less compliant to the Regulatory Focus model after Event 2. Businesses' strategic response changed after being informed that car parking was removed to allow for the new access. The uncertainty caused by this secondary and more threatening disruption corresponded to businesses acting more cautiously reflective of a more Prevention Focused approach. The absence of statistical significance amongst Regulatory Fit groups in Event 2 and 3 did however provide support for the notion that all businesses were being influenced by the message framing used in the induced goal-tasks, albeit not always as expected.

Relying on the count of actions as a measure of Regulatory Focus can be misleading, as different actions have different costs, risks and outcomes. The take-up of actions were therefore analysed for their use and non-use of new access resources. Respondents were found to favour more familiar and less costly traditional actions, such as customer service in Event 1. In Event 2 where they were given the choice of actions catering for customer car use and actions tapping into the potential of customers using the new access provisions, businesses showed a preference to do both, though in smaller measure. This preference to maintain a mixed strategy approach, even as the number of actions they chose became fewer continued in Event 3.

Analysis of the data collected in the Town Centre Business Survey did not support the majority of RFT hypotheses. If the RFT is a predictor of business strategic behaviour, as suggested by the literature reporting on lab-orientated experiments, alternative measures that focus on the nature of actions rather than count of actions would be more useful in applied situations.

Chapter 7   Implications for sustainable transport policy

In the previous chapter Regulatory Focus was used to analyse business response to the hypothetical disruption of sustainable transport initiatives and found to be a weak predictor of respondents' strategic approach. The Regulatory Focus Theory (RFT) model was found to be more productive as a means for interpreting business response, especially in relation to motivational goal concerns and shifts in strategic behaviour.

This chapter is concerned with how business actions could affect the realisation of policy goals, which is research Q3. As conceptualised in Section 3.4 and described in Section 5.1.7, the enhanced goal-orientated model incorporating Regulatory Focus, Motility and power is used as a framework for analysing the policy implications of the results from the Town Centre Business Survey presented in Chapter 6. The analysis focuses on the policy value, or otherwise, of using an enhanced goal-orientated model incorporating Regulatory Focus, Motility and power to get closer to the policy goal of reduced car dependence and more sustainable travel mode shares. [42] In assessing the policy value and implications the discussion refers back to observations and expectations from the historical case-study and the Local Government Focus Groups.

This chapter is structured in two parts. First the discussion considers the usefulness of Regulatory Focus in understanding changes in business behaviour. Second the policy usefulness of the Motility concept is discussed, and illustrative examples of how data about business actions can help shed light on the power of businesses to influence policy outcomes.

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[42] For a reminder of the nomenclature please refer to the Glossary at the front of the thesis.

7.1 Regulatory Focus, a tool for analysis, not prediction

Chapter 6 shows Regulatory Focus did not help to predict business responses to hypothetical events but does offer potential value in analysing shifts in business behaviour, specifically the change in goal concerns. In particular, the notion that opportunity concerns (Promotion Focus) and security concerns (Prevention Focus) are two distinct motivations for goal-orientated strategic behaviour could be a means to customise policy messages to speak to a broader audience of businesses.

7.1.1 Changes in strategic behaviour over three Events

The homogeneity of business response can be seen when the proportion of traditional and new access resource actions taken is analysed over three events using Regulatory Fit. The three Regulatory Fit groups follow a similar pattern of increased cautiousness of respondents, corresponding to a Prevention Focused approach. This process can be seen in Figure 7-1, which shows the process of adaption at the individual level for the three Regulatory Fit groups.[43] All three groups reduced their proportion of actions using traditional resources in Event 2, and encouragingly increased or maintained the proportion of actions using new access resources. Importantly even those with a negative sentiment are seen to increase their use of new access options, suggesting that framing by Regulatory Focus may have not reliably induced a Regulatory Focus but it did encourage respondents to focus on adaptive actions. A third important observation is the tendency of businesses to maintain a mix of strategies.

The positive and negative sentiment groups acted similarly throughout the scenarios, with one exception. The percentage of new access resource actions taken by Group 2 Good PM Poor PV in the Event 1 were very different, though these began to converge in Event 2, until they were essentially the same in Event 3. This high level of agreement amongst businesses suggests that the initial sentiment at the beginning of the survey about respondents' perception of new access affecting the attraction of customers and competitiveness of their business became less meaningful by the survey end. In other words, businesses appear to

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[43] The three Regulatory Fit groups categorize respondents by their Poor Fit or Good Fit on the Promotion Focus (PM) and Prevention Focus (PV) scales. Group 1 is Poor PM Poor PM which indicates a Poor Fit on both scales. Group 2 and Group 3 each have a Good Fit and a Poor Fit.

have changed their sentiment about the access changes during the course of the survey, and specifically after Event 2 when they were told parking was to be removed.

Figure 7-1: Observing how Regulatory Fit groups adapted over three events
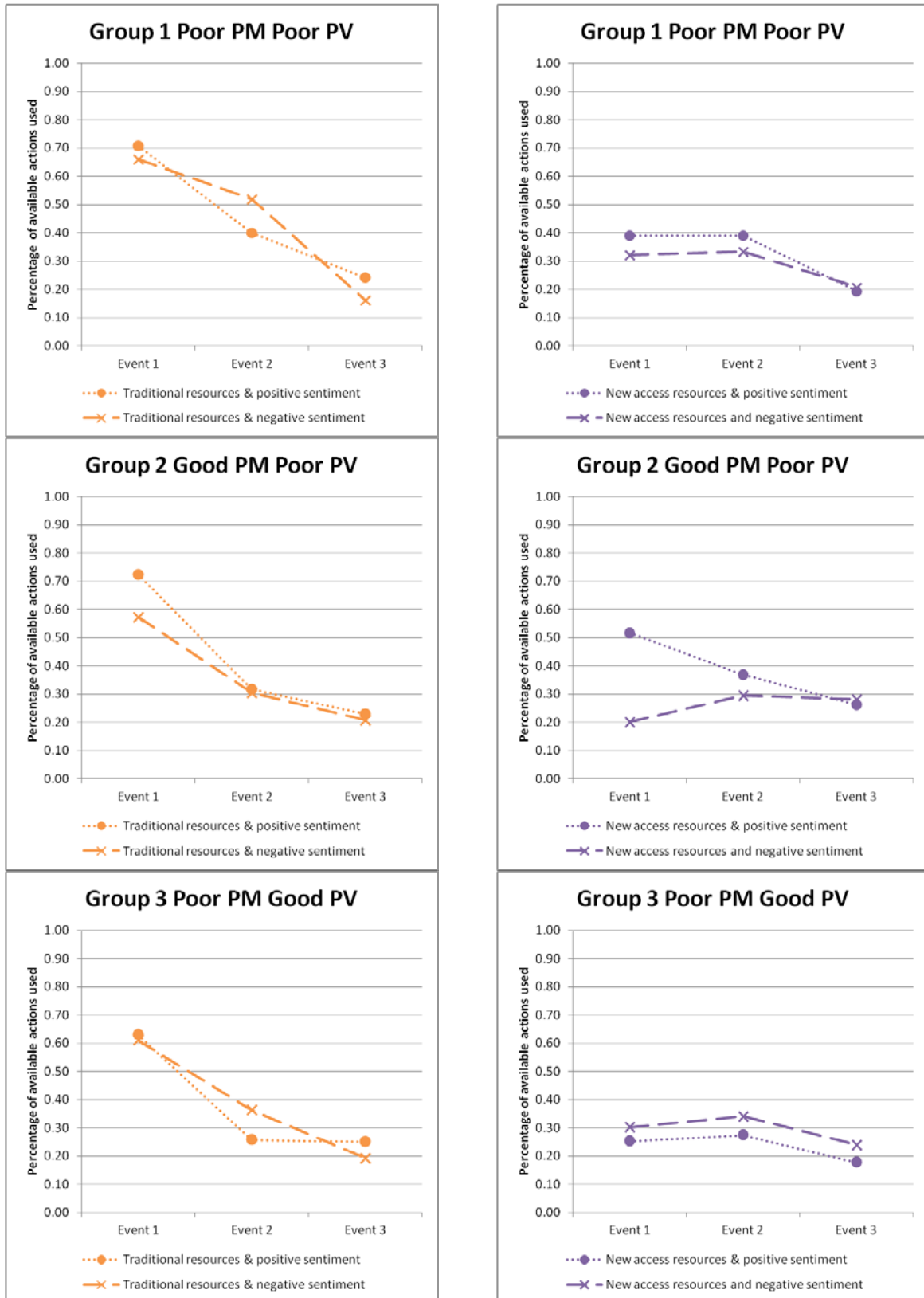
7.1.2 Changing perceptions in response to shifts in goal concerns

As noted in Chapter 2, the fact that peoples' perceptions about the value of access are always changing could be an opportunity for policymakers to cultivate greater public acceptance of sustainable transport policy initiatives. The Town Centre Business Survey results found business reactions after Event 2 changed, and it is likely that their perceptions about the impact of new access options on their business also changed. The analysis of data about actions suggests that it was not so much that businesses became more negative but rather their judgements about the value of access became more cautious, akin to a Prevention Focus goal concern.

In the Event 1 hypothetical scenario, news about the addition of new mobility options resulted in businesses responding more favourably to the opportunities it would offer, and less to goal concerns about improved business security. Businesses generally perceived there would be no change to their business competitiveness, which arguably was viewed as a negative outcome in light of the disruption and public funds being used to implement the initiative. The optimistic expectation that Customer Attraction (CA) and Town Centre Attractiveness (TCA) would be positively impacted therefore could be interpreted as Promotion Focus goal concerns having a greater influence as evidenced by the high number of actions being chosen in Event 1. The most popular actions were those that were familiar and low-cost, but most businesses also chose one or two actions that tapped into the new access resource.

The higher than expected positive sentiment could be because sentiment was measured in Event 1, ahead of the news in Event 2 about the removal of car parking. The Local Government Focus Group expected business opinion about the change would be more focused on what they were losing rather than what they were gaining. The survey design decision to separate the information about Disturbance 1 across two events (Event 1 and 2) was a response to concerns raised by the Focus Group participants that a study on parking would elicit negative or possibly aggressive responses during fieldwork recruitment. A high level of positive sentiment could be viewed as a reaction to new access, all other access being unchanged. However, feedback from respondents during the fieldwork collection indicates that, on being presented Event 1, some businesses were anticipating implications for car parking, either as it was likely in relation to the context of their street environment or because they were familiar with this being done before.

Information collected at the end of the survey confirms that the removal of parking in Event 2 did change some businesses' perceptions of the added accessibility, but not all. The majority view, held by 60.1 percent, was more positive feelings about the additional access options would be achieved if car parking was not removed, and this is consistent with Local Government Focus Group expectations. Encouragingly for policymakers one third of businesses indicated their view, already identified as quite positive, would not change. A minority, 6.3 percent, indicated they would feel more negative. Explanatory factors such as business type, LGA or TCMotility were not able to discern any statistically significant differences in these views.

Shifting the analysis of business perceptions from sentiment (like or dislike) to goal concerns helps to theorise about the adaptive response of businesses in the Town Centre Business Survey. In Event 1, the high number of actions is in keeping with a Promotion Focused eagerness strategic approach focused on maximising opportunities. In Events 2 and 3, the reduction in actions may be reflective of a Prevention Focused preference for vigilance, where concern about making the wrong choice leads to more careful behaviour. This change in Regulatory Focused behaviour is plausible in a real situation where business uncertainty about how to cope without car parking may result in more cautious behaviour to avoid threatening business security even further.[44] Using Regulatory Focus as a tool for refocusing policy attention on business goal concerns rather than attitudes provides new scope for engaging business communities.

7.1.3 Message framing with Regulatory Focus

Although the hypotheses about the moderating effect of Regulatory Fit are not supported, it does provide encouraging evidence in relation to the versatility of businesses to be influenced by Regulatory Focus framing. The expectation was tested by the hypotheses that those with low competency in goal attainment, that is Group 1 Poor PV Poor PM would be less adaptable when confronted with change. Group 1 may have maintained a relatively high use

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[44] The dominance of Prevention Focused behaviour in Events 2 and 3 could also be explained by respondents' goal concerns about participating in the survey changing. Businesses were not made aware about the consequences of their choices, but based on the dynamic question routing already encountered could have reasonably expected that their choice of answers may result in a more survey questions. Although a possibility, the high completion rates and tendency of respondents to continue a conversation after the survey, suggests that this was not a factor undermining the validity of the survey responses.

of traditional actions in Event 2 but this was coupled with an almost equal investment in actions using new access resources. This is encouraging from a policy perspective as it highlights the versatility of businesses to capture value from motility. However the absence of distinct differences in behaviour in Events 2 and 3 when respondents had a Good Promotion Focus Fit or a Good Prevention Focus Fit means Regulatory Focus does not offer policymakers a means of predicting how, or which, businesses will respond to different types of goal motivations, or induced goal-tasks.

Regulatory Focus message framing could be a low-cost way of 'speaking' to the opportunity and security goal concerns of businesses. For instance, structuring policy messages about the benefits of taking adaptive action could focus on reducing the risks to business security if petrol prices increase, as was done in Event 3, which would tap into those who will be most receptive to Prevention Focused security concerns. Additionally, the same policy message could be framed around Promotion Focused opportunity and advancement concerns by highlighting the opportunity to increase their customer base, by tapping into a segment of customers whose patronage is unaffected by increases in petrol costs.

7.2 Policy usefulness of incorporating the Motility concept

The Motility concept has been used in conjunction with the analysis of business actions to contextualise business responses to the environment in which they operate. The homogeneity of business response in the Town Centre Business Survey is not a barrier to the analytical value of the Motility concept. The use of Town Centre Motility takes the analysis to a meso-level and highlights the existing barriers and sustainable access options in different town centres do not radically change business opinion over the three events. This section of the analysis considers the issue of adaptation over time, and the intent of actions by businesses to influence customer motility. The illustration of the various policy paths to, or away from the sustainable transport policy goal in Figure 3-7, is replicated below to provide a context for how business actions relate to policy initiatives intended to change customer travel behaviour.

Figure 7-2: Changes to customer motility and policy goal outcomes (Source: this research)
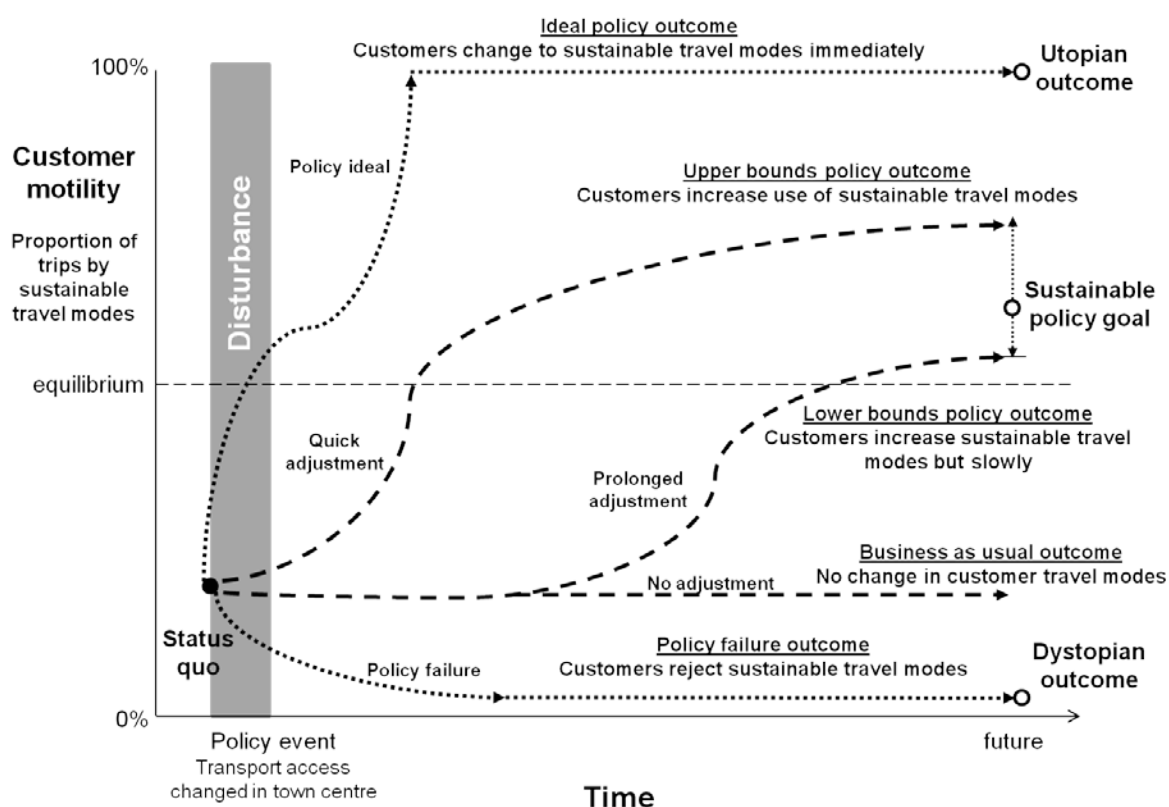
7.2.1 Meso-level analysis of business use of motility value

The homogeneity of business strategic response to the three scenarios of the Town Centre Business Survey is reinforced when the situational factor of Town Centre Motility is factored into the analysis. Figure 7-3 shows businesses in the four TCMotility categories followed a common trend of decline in the use of traditional resources and a consistency in the proportion of actions use of new access resources.

Figure 7-3: Take-up of actions using traditional and new access resources by TCe Motility
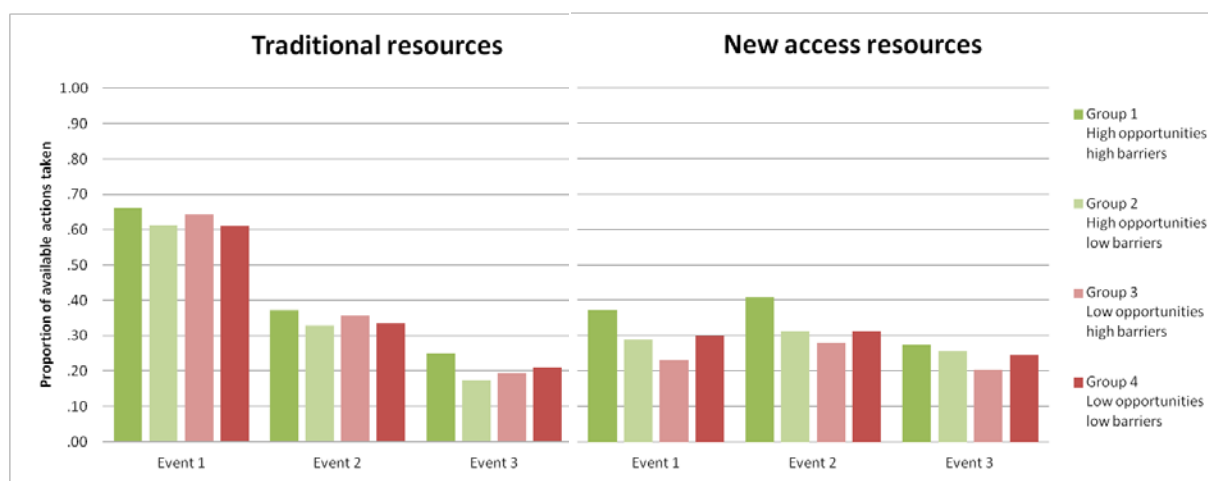
Although not statistically significant, there are slight differences observed amongst the four groups of centres that are interesting from a policy perspective. Businesses in town centres with low opportunities and high barriers (Group 3) chose a smaller proportion of actions using new access resources than the other groups in all three Events, possibly as they were the group with the highest level of awareness about where their customers come from, as noted in Section 6.1.2.

Familiarity with sustainable transport opportunities did not have a strong influence in the take-up of actions tapping into new access resources. The mean use of traditional and new access resources is shown in Table 7-1. This shows Group 1 businesses having a higher willingness to use new access resources in Event 2, but still showed an overall reluctance in increasing the number of strategies that would tap into new access resources more. The data and graph together show businesses in centres with a higher familiarity with car dependency (Group 2 and 4) were the most similar in their level of use of both types of resources across the three events.

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Table 7-1: Proportion of adaptive or traditional actions taken over three events by TCMotility

		Town Centre Motility	N	Mean	Std. Error	Std. Deviation
Event 1	New access resources used	High opp high barriers	29	0.371	0.055	0.298
		High opp low barriers	32	0.289	0.058	0.330
		Low opp high barriers	28	0.229	0.051	0.268
		Low opp low barriers	65	0.300	0.036	0.287
	Traditional resources used	High opp high barriers	29	0.661	0.057	0.308
		High opp low barriers	32	0.612	0.052	0.295
		Low opp high barriers	28	0.643	0.043	0.230
		Low opp low barriers	65	0.612	0.033	0.267
Event 2	New access resources used	High opp high barriers	29	0.408	0.059	0.320
		High opp low barriers	31	0.312	0.055	0.304
		Low opp high barriers	28	0.280	0.051	0.272
		Low opp low barriers	66	0.313	0.042	0.343
	Traditional resources used	High opp high barriers	29	0.372	0.052	0.281
		High opp low barriers	31	0.329	0.039	0.216
		Low opp high barriers	28	0.357	0.038	0.199
		Low opp low barriers	66	0.336	0.034	0.274
Event 3	New access resources used	High opp high barriers	30	0.273	0.049	0.269
		High opp low barriers	32	0.256	0.042	0.238
		Low opp high barriers	28	0.205	0.042	0.224
		Low opp low barriers	66	0.244	0.034	0.272
	Traditional resources used	High opp high barriers	30	0.250	0.041	0.224
		High opp low barriers	32	0.174	0.042	0.237
		Low opp high barriers	28	0.193	0.036	0.190
		Low opp low barriers	66	0.210	0.029	0.232

The absence of statistical difference amongst the business categorised by TCMotility is surprising (see Table 7-2). If businesses in centres with existing sustainable transport options are no more convinced that there are business benefits in capturing value from new access, this implies that the policy challenge is not necessarily going to become easier as more town centres become the focus of sustainable transport policy interventions.

Table 7-2: ANOVA tables examining differences actions over three events by TCMotility

		ANOVA	Sum of squares	df	Mean Square	F	p-value
Event 1	New access resources used	Between groups	.289	3	.096	1.102	.350
		Within groups	13.098	150	.087		
		Total	13.386	153			
	Traditional resources used	Between groups	.063	3	.021	.279	.841
		Within groups	11.329	150	.076		
		Total	11.392	153			
Event 2	New access resources used	Between groups	.272	3	.091	.890	.448
		Within groups	15.272	150	.102		
		Total	15.544	153			
	Traditional resources used	Between groups	.039	3	.013	.202	.895
		Within groups	9.583	150	.064		
		Total	9.622	153			
Event 3	New access resources used	Between groups	.073	3	.024	.371	.774
		Within groups	10.042	152	.066		
		Total	10.116	155			
	Traditional resources used	Between groups	.095	3	.032	.626	.599
		Within groups	7.676	152	.050		
		Total	7.771	155			

The diffusion of policy experience between the LGAs in the study area may be a factor in the homogeneity of views by TCMotility. For instance, City of Sydney's work to provide a network of bike routes segregated from road traffic has been the subject of many news stories, many of them deriding the need to provide for cyclists over motorists. Businesses in the adjacent Council areas of Leichhardt and Marrickville are likely to be informed by these experiences.

This diffusion of policy experience could be a means for encouraging more adaptation and generating demand for sustainable policy interventions. The historical case-study provides an example of this potential, where Marrickville, Dulwich Hill and Newtown businesses all put forward the need for policy action to help them remain competitive in light of growing car use amongst society. The more that town centres can maximise their new assets to increase the number of customers, the more businesses in other town centres will want to benefit.

7.2.2 Policy goals and business power

Although the intention of changing the accessibility in town centres is to change customer travel behaviour, it is synergetic to the policy goal of reducing car dependency when businesses tap into the new access resources. Businesses continued use of traditional resources is not necessarily antagonistic to the policy goal unless the strategy requires or assumes continued customer preference for car travel. Analysing the actions taken by their power to aid or hinder policy goals provides a new perspective on how businesses may influence policy success.

All the actions tapping into new access resources were coded as synergetic to the policy goal, as described in Chapter 5. Only traditional actions that would encourage car mode share amongst customers were defined as antagonistic to policy goals. Unlike the analysis of traditional versus new access resource actions, the analysis of power dynamic focuses on both events together as they are both a response to Disturbance 1, which is the combination of Event 1 and Event 2. Figure 7-4 shows the level of synergetic and antagonistic actions taken by respondents in Disturbance 1.

Figure 7-4: Antagonistic versus synergetic actions taken in Disturbance 1 (n=156)
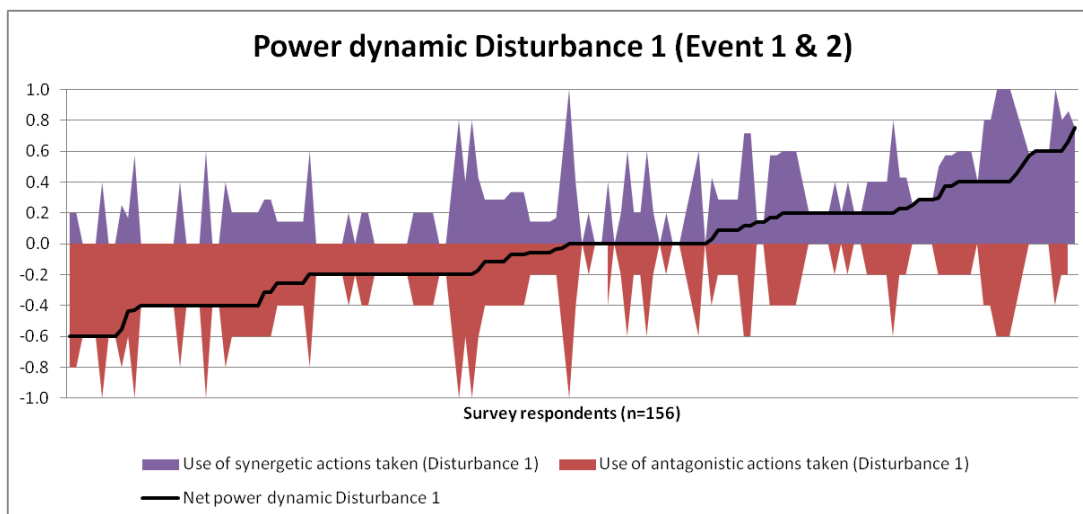
Consistent with observations about the use of new access and traditional resources, most businesses in Disturbance 1 were found to use a mix of antagonistic and synergetic actions however the net effect varied. The net power dynamic for 49.3 percent of the sample was antagonistic, and 36.5 percent had a synergetic net power dynamic. The combined antagonistic and synergetic actions were neutral for 14.1 percent of the sample, as indicated by the horizontal black line at 0.0.

This preference amongst businesses for a mix of strategies is consistent with best practice business strategies, namely the need to balance diversification and specialisation. That is, diversify products and services to increase scope of appeal amongst customers and spread risk while at the same time specialising to differentiate the business from the competition and gain competitive advantages. This mixed strategy approach was contrary to the expectations expressed by the Local Government Focus Group. Drawing upon their encounters with businesses, the Focus Group participants were certain businesses would be opposed to losing parking, which was largely true in the survey. The Focus Groups participants did not express any expectation businesses who were against the policy action would take on strategies to use the new access nevertheless. The limits to the Focus Groups' knowledge may be a product of too many encounters with businesses about access in the town centre being vulnerable to strategically biased communication. That is, businesses are likely to be using their encounters with Council staff to advance their arguments that policy interventions will be detrimental to their business whilst at the same time planning, and possibly implementing strategies that would allow their business to survive. The data from the Town Centre Business Survey therefore offers some new empirical information about how businesses may react to keep their business viable.

Using the measures of synergetic and antagonistic power, the number of actions taken in relation to the number offered can be analysed against different demographic variables. Table 7-3 presents the data for business response to Disturbance 1 against different explanatory variables. Analysing the data in this way allows for the identification of which categories of the business community in the study area would be more or less opposed to Disturbance 1. In this dataset, gender was found to be statistically significant for the use of synergetic actions, with males more embracing of new access resources than females (ANOVA, $F=7.062$ $p=0.009$). This is unexpected as measures of perception had identified females being statistically significantly more optimistic than males about the added access options with females having a more optimistic view that existing customers would be pleased with the new access (Customers2 ANOVA, $F=9.168$, $p=0.003$, Appendix 5) and that the added access options would make the town centre a more attractive place to shop (Town2 ANOVA, $F=6.018$ $p=0.015$, Appendix 5). This mismatch between perceptions and actions, if found to be part of a broader trend, does raise questions about how much importance should be placed on favourable perceptions when it is favourable actions that really matter, and if gender is truely more significant factor in differentiating business responsiveness to policy initiatives.

Table 7-3: Comparing means for power dynamic by key explanatory variables in Disturbance 1

	N	Use of available synergetic actions				Use of available antagonistic actions			
		Mean	Std. Dev	Std. Error Mean	$F_{calc.}$ (p-value)	Mean	Std. Dev	Std. Error Mean	$F_{calc.}$ (p-value)
Gender									
Males	91	0.35	0.26	0.03	**7.062 (0.009)**	-0.31	0.26	0.03	3.237 (0.074)
Females	65	0.24	0.26	0.03		-0.39	0.24	0.03	
Age									
Less than 30	48	0.27	0.25	0.04	0.926 (0.398)	-0.34	0.26	0.04	0.197 (0.821)
31-50	94	0.32	0.28	0.03		-0.34	0.25	0.03	
Over 50	14	0.36	0.28	0.08		-0.39	0.23	0.06	
Business Position									
Owner	109	0.33	0.27	0.03	2.671 (0.104)	-0.35	0.25	0.02	0.234 (0.629)
Manager	47	0.25	0.26	0.04		-0.33	0.25	0.04	
Business Type									
Food & Health Stores	44	0.35	0.28	0.04	2.475 (0.088)	-0.31	0.24	0.04	0.554 (0.576)
Food Service	83	0.32	0.27	0.03		-0.36	0.26	0.03	
Fashion	29	0.21	0.22	0.04		-0.35	0.23	0.04	
Business Size									
No employees	18	0.29	0.26	0.06	1.925 (0.128)	-0.30	0.21	0.05	**2.790 (0.043)**
1 - 4 people	69	0.28	0.27	0.03		-0.30	0.23	0.03	
5 - 19 people	56	0.31	0.26	0.03		-0.38	0.26	0.04	
20 or more people	13	0.47	0.29	0.08		-0.49	0.29	0.08	
LGA									
City of Sydney	69	0.31	0.28	0.03	1.527 (0.221)	-0.31	0.25	0.03	0.839 (0.434)
Leichhardt	42	0.26	0.26	0.04		-0.38	0.28	0.04	
Marrickville	45	0.34	0.26	0.04		-0.38	0.21	0.03	
Centre Type									
Village	63	0.33	0.27	0.03	0.834 (0.362)	-0.29	0.23	0.03	**6.258 (0.013)**
Town Centre	93	0.29	0.27	0.03		-0.39	0.26	0.03	

Contrary to Local Government Focus Group expectations the smaller sized businesses were the least antagonistic and the businesses with more than 20 employees taking on average the largest proportion of antagonistic actions (ANOVA, F=2.790, p=0.043). The relative size of businesses and exposure to business risk if Disturbance 1 resulted in a loss of customers

could be a factor in larger businesses being on average more antagonistic. Another possibility is that smaller businesses are more vigilant with their investment of resources, which is consistent with statistically significantly higher levels of Prevention Focus endorsement amongst businesses with 1-4 employees (ANOVA, F= 2.677 p=0.049) as reported in Table 6-12.

The statistical significance of Centre Type in the level of antagonistic power also raises interesting policy implications (ANOVA, F=6.258 p=0.013). The average net power dynamic of businesses in villages was synergetic ($\bar{X}$=0.045) and in town centres it was antagonistic ($\bar{X}$=-0.096). This is consistent with findings reported in Section 6.2, where Centre Type has a statistically significant effect on perceptions about business competitiveness (BC). If the finding holds true outside the study area this presents a rationale for rethinking current policy prioritisation of larger centres.

Figure 7-5: Antagonistic versus synergetic actions taken in Disturbance 2 (n=74)

The mapping of antagonistic and synergetic actions also provides an alternative means for evaluating the effectiveness of Regulatory Focus message framing. Mapping the power dynamic used by businesses exposed to Event 3 (PetrolOp) for instance provides some important policy insights (see Figure 7-5). The majority of businesses chose only synergetic actions providing evidence that focusing business attention on customer's response to increasing petrol prices provided an incentive for businesses to think about alternative business strategies. Those who chose antagonistic actions are not only a small portion of the sample but they continue to incorporate some synergetic actions. The graph also points to a significant number of businesses who opted to take no action, which could signal a

community unsure how to respond, or apathetic about the change or a group that presents a latent antagonistic threat to the policy goal. In summary, mapping the power dynamic provides evidence that the right message framing encourages a population of small businesses to adapt their business to tap into the new access options and moreover businesses who are vocal about their opposition are adapting too.

7.2.3 Rethinking priorities to quicken policy acceptance

It is common policy practice to prioritise the implementation of sustainable transport initiatives in larger town centres where existing customer demand and traffic congestion is seen as a more efficient and rationale investment of public funds. Analysis of power dynamic, however, suggests it may not be the quickest policy approach to cultivating positive experiences of sustainable transport policy interventions.

In this study, motility is a means to analyse the effectiveness of Disturbance 1 (Events 1 and 2) in transitioning centres to become less car dependent. By virtue of their existing barriers and opportunities, the four centres categorised by TCMotility will experience different transitional paths to the utopian policy goal of reduced car dependence and greater use of sustainable transport. This can be thought of as moving the TCMotility status of centres closer to the utopian policy outcome of 100 percent TCOpportunity and 100 percent TCBarriers. Figure 7-6 illustrates how this change could be manifested. An upward change occurs at Event 1 as it increases TCOpportunity, the removal of parking in Event 2 results in higher TCBarriers and moves the centre horizontally to the right.

Figure 7-6: Changes in TCMotility in response to Disturbance 1 (Source: this research)
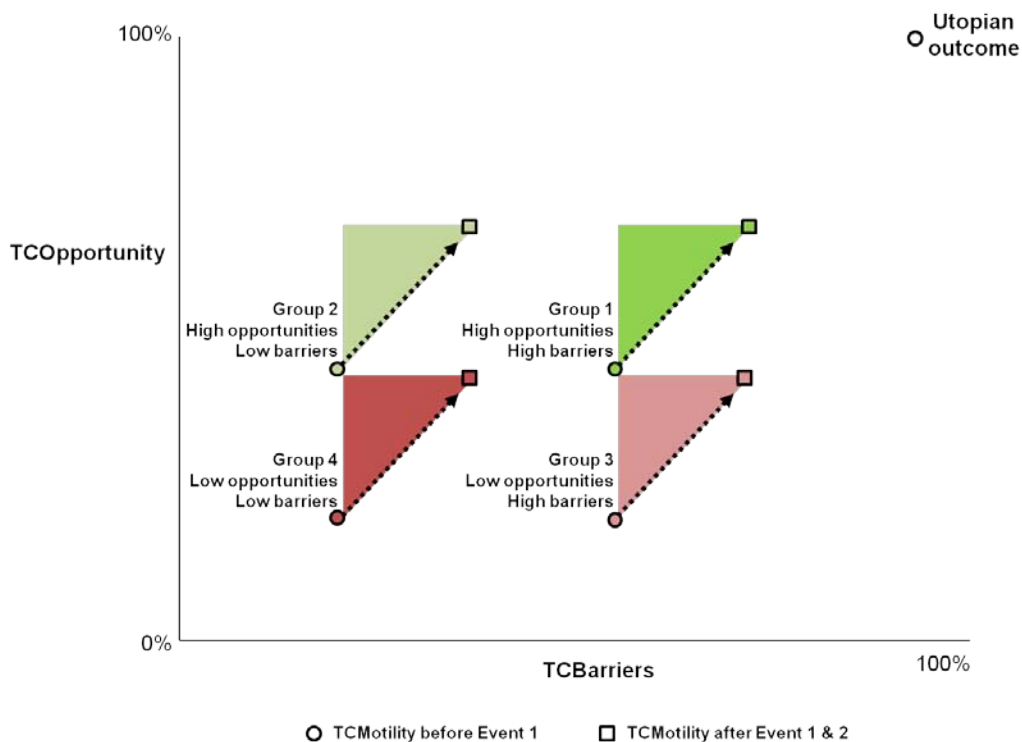
The use of power dynamic in the analysis enables a deeper insight of how accessibility characteristics may influence business push-back and acceptance of policy goals.

Transitioning town centres to a model where there is greater use of sustainable transport and less dependence upon car mode requires reducing the comparative differences between competing centres. The legacy of past transport infrastructure decisions, which in turn are a consequence of historical differences in land-use, demographics as well as geographical factors, means that some town centres require more sustainable transport investment. This means different amounts of change is required to put centres on an equal footing, or as illustrated in Figure 7-6, and permit all centres to become increasingly more sustainable and less car dependent.

Table 7-4 differentiates how businesses in villages and town centres with different TCMotility reacted in Disturbance 1. The observation that businesses in villages will have a synergetic power dynamic, and town centres an antagonistic power dynamic does not hold for all villages categorised by TCMotility. Group 3, those villages with low opportunities for sustainable transport and high barriers to car use have a net antagonistic power dynamic ($\bar{X}$=-0.067). Figure 7-6 helps to explain why Group 3 acted differently. In Event 1, increasing the availability of sustainable transport options moves Group 3 closer to the position of Group 1 providing customers with an alternative to the restricted car parking. Event 2 neutralised these gains as businesses were further disadvantaged by the loss of parking outside their business.

Table 7-4: Changes in power dynamic in Disturbance 1

Disturbance 1 (Event 1&2)	Village			Town Centre		
	Synergetic	**Antagonistic**	**Net power dynamic**	**Synergetic**	**Antagonistic**	**Net power dynamic**
Group 1 High Opp High Barriers	0.382	-0.273	0.109	0.368	-0.433	-0.066
Group 2 High Opp Low Barriers	0.341	-0.289	0.052	0.282	-0.345	-0.063
Group 3 Low Opp High Barriers	0.333	-0.400	-0.067	0.227	-0.345	-0.118
Group 4 Low Opp Low Barriers	0.312	-0.270	0.042	0.294	-0.421	-0.127
Total	0.330	-0.286	0.045	0.290	-0.387	-0.096

The analysis of motility and power dynamics provides an interpretation as to why Group 1 villages have a much higher synergetic power dynamic than Group 2. Group 1's additional

sustainable transport options but loss of parking could be motivating businesses to focus on making new connectivity work. Group 2, in contrast, may have increased barriers to car use but these are not sufficient to motivate businesses to place a greater focus on strategies that use the new access.

All four categories of town centres have a mean antagonistic power dynamic, indicating that businesses in town centres are less inclined to give up strategies that rely on car use. This reflects the expectations of the Local Government Focus Groups. Businesses in Group 4 town centres ($\bar{X}$=-0.127) had the highest level of antagonistic power dynamic, followed by businesses in Group 3 ($\bar{X}$=-0.118). The same rationale for Group 3 villages could apply to Group 3 town centres but there are also alternative explanations. For example, the unfamiliarity with how to adapt strategies to capture business value from sustainable transport access could be a factor. Group 3 and 4 town centre businesses may have increased dependence on customers who choose to drive due to their larger catchments, and therefore are more vulnerable to losing customers to other destinations. As reported in Figure 6-2, a greater percentage of businesses in Group 3 indicated they knew where their customers came from (Knowledge 6), providing support that these businesses were more aware that their customers drove – possibly due to hearing customer complaints about finding car parking.

In the context of the study area it is state government, not local government authorities that make decisions about the provision of public transport. Decisions about public transport investment is more often made on evidence that there is a demand for better services and less often on the evidence where demand for services needs to be generated. This chicken and egg situation is one which is also replayed amongst businesses whose expectations that car parking should be a priority over sustainable transport is centred on evidence that demand for car parking amongst customers is favoured over sustainable transport access. Based on this analysis of motility and power dynamic, this study provides a case for changing tack and prioritising the implementation of sustainable transport policy initiatives in villages which are not yet dependent upon car use and whose local catchments mean sustainable travel modes such as cycling and public transport may have greater appeal. In taking such an approach, policymakers should reconsider the value of increasing barriers to car use at the same time, especially in Group 3 and 4 centres with pre-existing low barriers, as their reduced familiarity with using new access may need addressing.

7.3 Conclusion

It is in policymakers' interests to increase the proportion of synergetic actions businesses take, and this study shows it will help quicken community acceptance of the new access infrastructure. This research focuses on a population of small businesses in local town centres and their power to influence sustainable transport policy outcomes. Using the enhanced goal-orientated framework this Chapter analyses the Town Centre Business Survey in relation to policy implications. The incorporation of Regulatory Focus, Motility, and power have value as analytical policy tools for conceptualising and identifying how the business community may be factored into policy considerations.

Encouragingly for policymakers businesses continue to adapt so as to maintain a viable business despite being wary or opposing sustainable transport policy initiatives. Regulatory Focus could be used more to frame messages about how sustainable transport initiatives serving societal level goals could also help business goals about security and opportunity. The ability of businesses to capture motility value from new access can be furthered by policy efforts to increase the familiarity of strategies and their effectiveness. The analysis of power dynamic, TCMotility and transitional policy paths can be used to rethink current prioritisation of larger centres over smaller centres and its effectiveness in cultivating greater popularity and acceptance of sustainable travel options.

Chapter 8   Conclusion

This study contributes to the interdisciplinary transport policy literature. Specifically it contributes to improving knowledge about the factors that aid or hinder the transition of transport systems and mobility behaviour so that urban life can be more sustainably managed for the long-term. This research focuses the enquiry on smaller businesses in local town centres of an urban environment and the implementation of sustainable transport policies that change the accessibility options available to their customers.

In seeking to understand smaller business concerns better the research sought to reduce the complexity of the research task by adopting a number of strategies. A central strategy was to use a familiar decision-making model used in policy planning and adapt it to place greater attention on the role of smaller businesses in influencing the realisation of sustainable transport policy goals. A second and equally important strategy was to draw on multidisciplinary ways to investigate goal conflicts that act on multiple scales of decision-making. Three research questions were the focus of this study, each one focused on a component of the iterative goal-orientated decision-making process that incorporates past needs, knowledge and preferred strategies with contextual factors and expectations for the future.

This concluding assessment is structured in the following way. First, it assesses the fulfilment of the research objectives. Second, it details the key contributions this study makes to the literature. Third, it identifies the limitations of this study. The final part uses these reflections to outline future directions for research on this topic.

8.1 The fulfilment of the research objectives

The objective of this research study was to increase understanding of how small business owners aid or hinder the success of policies aimed at reducing car dependency. The societal-level policy goal of encouraging changes in travel behaviour is often at conflict with micro-level business goals about customer attraction. Business opposition to sustainable transport initiatives is a reaction that may grow or lessen as businesses' views change about the business value of new transport access features.

This study looked to the literature on goal motivations and strategic decision-making behaviour and identified a theory gaining popularity in the marketing and small business literature, known as Regulatory Focus Theory (RFT). This study incorporated RFT with sociological concepts of motility and power into a goal-orientated model already used in the transport policy, travel behaviour change and marketing literatures. The enhanced goal-orientated model was then used to investigate business opposition and adaptation to sustainable transport projects in a town centre environment. Three research questions were posed. Each question is assessed below.

8.1.1 Understanding business perceptions about access changes

> Q1.   To what extent do businesses perceive changes to transport access options in a town centre disrupts their business goals?

This study addressed the first research question by exploring the subjective and fluctuating values about access and how it informs business concerns about the impact of change on their business. The study confirmed businesses recognise that the accessibility of a town centre environment is a resource which their business benefits and acted to protect its value. This is evident in the historical case-study. Businesses were motivated to invest resources to get off-street car parking in their town centre on the grounds that it would increase the competitiveness of their town centre in attracting customers.

Expectations derived from the literature, and the Local Government Focus Groups that businesses preference for car parking would reduce their appreciation of sustainable transport options is found to be not true. Respondents in the Town Centre Business Survey judged the addition of sustainable transport access options favourably for its contribution to customer attraction and town centre attractiveness, two highly correlated and largely indistinguishable business concerns. Competitive advantages were also generally viewed as being favourably

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impacted but this was off-set by the threat of new competitors. For this reason the addition of sustainable transport options was perceived by respondents as having minimal impact overall on business competitiveness. This view of minimal impact changed when they were told parking was removed.

Shifts in business goal concerns became apparent when analysed against the RFT model. When accessibility was added, businesses found it easier to appreciate the added business opportunities rather than the added business security new access could offer. When parking was removed, businesses' selection of actions suggests they became more focused on the loss of business security rather than the loss of business opportunity.

In sum, this study partially met the objective of the first research question. The research methods were able to detect how businesses perceived different business goals would be affected, and to observe how these changed as the access features changed. However, the measures used at the beginning of the Town Centre Business Survey were not repeated, thereby making it difficult to assign a value to the extent that business perceptions changed.

8.1.2 Adaptive business behaviour and Regulatory Focus Theory

> Q2.   Are businesses willing to adapt to changes in transport access and trip-making to town centres, and do their goal concerns and goal pursuit competencies have an influence?

Regulatory Focus Theory provided a means to analyse and understand the motivational concerns of businesses but was not helpful in predicting the likelihood that businesses would adopt an eagerness or vigilance strategic approach. The data analysis of survey responses found that the preference for Regulatory Focused strategies, measured by RFSS, show little correspondence to the business's stated intentions. Moreover, expectations that motivations and goal-tasks categorised as Promotion Focus would induce eager strategies and Prevention Focus would induce vigilant strategies were unable to be supported by the data. There was also insufficient evidence to confirm businesses' goal pursuit competencies have an influence on their goal-pursuit behaviour. However differentiating businesses by Regulatory Fit did provide some insight into shifting business concerns, and the effectiveness of message framing. There are a number of possible reasons why business behaviour, in this study, largely did not comply to the RFT model. These are discussed in the contributions and limitations of this study (Sections 8.2 and 8.3).

Differentiating between different Regulatory Focus goal concerns was more productive as an analytical means of interpreting Regulatory Focus business behaviour especially when tracking their adaptive behaviour through the survey scenarios. The Prevention Focused goal concern 'to strengthen the business' was dominant especially amongst those still trying to regain financial well-being experienced before the GFC, and is likely to be a factor in the increasing cautiousness of respondents as evidenced by their reduced number of actions chosen. The RFT distinction of two distinct goal concerns was also found to be useful in reframing a policy message about changes in customer travel behaviour that reorientated businesses to see new access as an opportunity rather than a threat to their business.

Characteristics of the business and the features of their town centre were found to have some influence in the choice of adaptive behaviour but less significantly than the literature suggests. The homogeneity of business behaviour was a point of interest, as it was contrary to the expectation raised in the Focus Groups that smaller businesses' resistance to change would be demonstrated in their unwillingness to adapt. Businesses did adapt, with low-cost traditional actions being the most popular. Most businesses opted for a mix of strategies incorporating some of the more familiar actions that used the new access features such as outdoor seating. When parking was removed, Regulatory Focus message framing appeared to have some influence in businesses' willingness to increase their use of new access options and reduce their use of traditional actions that assumed customers would drive. This became more evident when businesses' willingness to use actions was analysed for their synergetic and antagonistic power potential.

In sum, the research objective for the second research question is partially met. The research methods were able to confirm that businesses did adapt. However, as business behaviour in the Town Centre Business Survey did not align to the Regulatory Focus model the scope for this study to confirm, more generally, if goal concerns and goal competencies have an influence on behaviour, is inconclusive.

8.1.3 Business power to disrupt policy goal success

Q3.   What are the implications for the realisation of sustainable transport policy goals if business owners' reactions do not align with policy intentions?

The implications for the realisation of sustainable transport policy goals are varied. Although not helpful as a predictor of business behaviour RFT has value as an analytical tool to interpret business behaviour and design policy responses so as to avoid policy failure.

In policy practice, using RFT as an analytical tool would involve training those tasked with communicating news of potentially disruptive policy changes to businesses to recognise different RFT cues. These cues could include how businesses express their concern about the policy differentiating between those that orientated around security concerns and those that are about advancement and opportunities lost. The Local Government Focus Groups identified it was rare that they were able to engage businesses in a dialogue on underlying concerns. Businesses were more focused was on communicating their discontent to Council staff about the policy proposal/actions. The RFT model could be used as a communication guide for local government staff in responding to businesses' discontent by moving the conversation to that of goal concerns, and then to strategising about means to adapt the business to the new situation. This research did find message framing using the RFT model useful. Using the RFT model to design separate policy communication that would 'speak to' the Promotion Focused and Prevention Focused concerns of businesses could improve the salience of policy messages to the business community who have different goal priorities in a low-cost and efficient way.

There are indications that the familiarity about the effectiveness of specific adaptive strategies was likely to be a limiting factor in businesses choosing to adopt them. This is not so much about respondents' competency in using goal-attainment strategies, but a consequence of respondents' exposure to sustainable transport access and barriers to parking in their town centre location. The take-up of proactive actions such as tailoring marketing strategies to public transport users or cyclists would be likely to increase if such actions shifted from being innovative and became more normalised. It is in the interests of policymakers to cultivate business familiarity with different adaptive business actions. It can reduce anxiety about the future of the business, which is invariably informed by the diffusion of stories about bad business experience through business networks and the media. Encouraging diffusion of business experience when sustainable transport projects go well

could also generate envy and demand for initiatives. As evident in the historical case-study where businesses argued that they wanted off-street car parking facilities so that they could compete with 'modernised' town centres and new regional shopping centres.

The coding of actions by their antagonistic or synergetic power dynamic provided a means of assessing what types of businesses and places would be more appreciative, or less resistant to the policy disturbance. Business size and centre type were found to be statistically significant factors in the use of antagonistic actions providing support for a rethink about investment being prioritised in larger centres where there are larger businesses. Working with smaller businesses in villages may be a better policy approach as it may be easier to increase the value businesses placed on new access. It may be especially helpful if the new accessibility helps these smaller centres become more convenient, interesting and pleasant places for customers to visit by public transport, bike or by foot.

The research objective for the third research question is fully met, in part due to these methodological innovations. Achieving sustainable transport policy goals is a long and uncertain process. Mapping levels of antagonistic and synergetic business responses under different conditions provided a new means of assessing the willingness of businesses to begin adaptation. The adaptive process for businesses is likely to take some time to perfect as strategies are evaluated. This study finds the enhanced goal-orientated framework provides a new means for analysing data collected about business reactions, and the analysis in Chapter 7 demonstrated ways in which it could be incorporated into policy considerations.

8.2 Contributions

This study contributes primarily to the transport policy literature which is interested in applying research knowledge in an applied environment, specifically in relation to making mobility systems more sustainable. This study is also of value to researchers in other fields such as those concerned with small business, retail marketing and government policy who require effective ways to engage and collect information from a small business population. This research shows studying goal-orientated decision-making from multiple perspectives provides important insights. It also identified challenges in adapting the theory of Regulatory Focus in an applied setting.

8.2.1 Engagement of a small business population

Smaller businesses may be difficult to engage but this study confirms that it is not impossible. This study achieved a 40 percent response rate in the first period of fieldwork, which increased to 47 percent response rate in the second period. This high level of business engagement was helped by a number of strategies that are best practice approaches. These included prenotification, setting appointment times, repeat visits and the face-to-face recruitment and fieldwork. A new and important strategy taken in this research was the decision to utilise a web-enabled tablet device. Two new strategies that should be considered for future studies of small business populations were made possible by the use of a web-enabled iPad:

- Web-assisted personal interviewing (WAPI) was used to administer the Town Centre Business Survey. WAPI proved to be an effective strategy for enabling the study to take advantage of the functionality of an online survey tool whilst also providing a strategy to increase the response rate. Businesses responded favourably to news that they would complete the survey themselves on the iPad tablet device, thus creating a motive to participate in the survey. Completion rates can be a problem in both online surveys and paper surveys as respondents become distracted or get irritated by the survey. The completion rate in this study was very high (98.9 percent), despite survey completion time increasing when respondents paused the survey to attend to their business.

- The logging of fieldwork encounters online with the iPad allowed the study to analyse the effectiveness of response rates against the number of contacts made with businesses. An outcome of this analysis was identifying opportunities to improve the response rates, such as the benefits of delivering the prenotification letter in person.

The novelty benefits of the iPad as a survey instrument may now have reduced as tablet devices and smart phone technology have become more commonplace however the functionality benefits for fieldwork research remain significant.

8.2.2 New insight into business perspectives

This study provided new insight into the underlying concerns for town centre businesses, and how business behaviour did not necessarily correspond to Local Government expectations. Although local government have greater day-to-day exposure to smaller businesses the

conflict of goals and different strategic perspectives means there are few opportunities to have a dialogue about issues of underlying concern. This study therefore provides the following important contributions to help policymakers understand business perspectives better:

- The study's reflections on the past provided an opportunity to use hindsight as a means of questioning assumptions about business behaviour. Not all changes happen overnight. Changes in car-orientated social attitudes and patterns of behaviour, if they happen, will happen slowly as businesses and their customers adapt to the new accessibility options available to them. The historical case-study helped to show some of the challenges businesses faced as their town centres adapted at different rates, and how businesses and policymakers both developed competencies and new norms of expectations.

- The study's use of Regulatory Focus highlights that businesses find it easier to recognise the increase in goal opportunities rather than the improvement in goal security when new access is added. The removing of parking becomes more of an issue of goal security lost, than goal opportunity lost.

- The study found the Local Government Focus Group participants' view that business opposition meant that businesses were failing or refusing to adapt was misconceived. The Town Centre Business Survey provides new data about the willingness of businesses to take actions under different conditions. Businesses were found, for example, to be receptive to message framing that focused their attention on using new access to address goal security concerns about changes in customer behaviour. They were also found to use a mix of familiar and more innovative strategies. Thereby this study confirms there is a role for policymakers to help normalise business actions that tap into new access resources.

Moreover, innovations in this study aimed at adapting the goal-orientated framework to incorporate the disturbance to businesses' accessibility provide a new means for analysing the impact of the policy disturbance at multiple-scales. The coding of actions by their use of resources, and their antagonistic and synergetic relationship to the policy goal allowed the disruption effects to be conceptualised at the individual level of the business decision-maker. In addition, the use of Town Centre Motility allowed the individual level reactions to be contextualised to the characteristics of the town centre environment that are changed by the

policy intervention. Together these innovations provide policymakers with a new analytical means of considering how system-level policy actions disrupt business goals and business actions disrupt system-level policy goals.

8.2.3 Studying Regulatory Focus behaviour in an applied setting

Creators of the RFSS, Ouschan *et al.* (2007), identified more work was needed to validate if a preference for eagerness or vigilant strategies corresponds to strategy choice. Since RFSS was designed there have been only a few references to it as a measure of Regulatory Focus (Summerville and Roese, 2008; Boesen-Mariani, Gomez and Gavard-Perret, 2010; Boldero and Higgins, 2011), and only one known use of it. Imai (2012) used RFSS to differentiate participants in a psychological study of team goal-solving tasks. Although the Imai study involved all the complexities of 'real-life' group behaviour it was, like many Regulatory Focus studies, conducted on a sample of university students in a controlled laboratory environment working on a simulated task (to create an advert). In contrast, this study of business response to a hypothetical change in accessibility used Regulatory Focus to study real business decision-makers and how they may react to a plausible disruption event in their local business environment. This is the first known study to use RFSS in an applied setting.

Methods normally used to measure Regulatory Focus strategic behaviour in laboratory settings were found not to transfer well in this study. This is both a limitation, as discussed below, but also a contribution to the literature as the limitations will help to inform future research considerations.

8.3 Limitations of the study

In this research, the pragmatist approach of using mixed-methods addressed the limitation of a mono-methodological view of the research problem. The inclusion of multiple perspectives and forms of data did not, however, avoid the constraints of each individual component method. Moreover, the Town Centre Business Survey was the core component to the methodology. The historical study and focus groups provided input to the design of the survey, whilst survey output was used for the analysis of policy implications. Orientating the study around the Town Centre Business Survey could be viewed as favouring a positivist epistemology. Factors supporting this view are that the Town Centre Business Survey was used to collect data about decision-making in quantitative data format; effort was made to recruit a representative random sample; and hypothesis testing was the means used to validate

if Regulatory Focus Theory explained business responses. The transferability of the research outcomes in this research, would therefore be subject to a number of limitations arising from the positivist approach. These include:

- consequences of methodological decisions that involved trading-off the amount and type of data collected so as to reduce respondent burden;
- difficulties in measuring Regulatory Focused strategic behaviour in an applied setting;
- sample size and contextual factors that limit the ability to infer the results from this exploratory case-study to all business populations; and
- challenges encountered in trying to study an adaptive goal-orientated decision-making process that is in perpetual motion.

From a pragmatist perspective the limitations identified above and discussed in greater detail in the sub-sections below, are not in dispute but the capacity of these limitations to compromise research outcomes is less of a concern. The intent of using a mixed methods pragmatist approach was to provide multiple viewpoints of adaptive business behaviour. The reflexive process of moving back and forth between exploratory and confirmatory methods enabled the research findings to be cross-validated and incorporated into subsequent methods. The Town Centre Business Survey was also subject to this reflexive approach in Chapter 7 where businesses' stated intention to act is used as an input into policy considerations, cross-referenced with observations from the historical study and focus groups. The pragmatist mixed-methods approach may not have avoided the following limitations but it does provide a more robust means to analyse the findings of each method and integrate it from a more holistic perspective.

8.3.1 Methodological decisions

As with most studies of human behaviour, collecting sufficient data about the process of goal-orientated decision-making model is inherently complex and requires trade-offs. Trade-offs in the Town Centre Business Survey included:

- not collecting baseline data about current business views on their town centre or their current strategies limited the ability to discern the extent that the disruption and Regulatory Focused interventions caused a change in attitudes and actions.

- giving respondents the option of different scenarios within the same event, meant that in Event 1 some actions did not have sufficient exposure, and in Event 2 and 3 the size of sample became smaller.

- presenting the same list of actions to all three business types meant not all actions were relevant. For example providing outdoor seating has most relevance for Food Service businesses and less for Fashion stores.

- no information was provided to respondents about the relative resource costs of different actions. Similarly no data was collected from businesses about the level of risk they associated with each action. This makes it difficult to assess if respondents were judging actions against the same criteria.

- choosing a stated preference survey design was aimed to restrict respondents' choices so that the causal relationship between goals and strategies could be assessed. A consequence of this decision is that the model was too simplified to capture if respondents were focused on more than one Regulatory Focused goal at any one time, as the analysis of responses suggests.

8.3.2 Measuring Regulatory Focus strategies

The analysis of Town Centre Business Survey results could not support the hypotheses. The analysis was unable to show that differentiating endorsement of Regulatory Focus goal-attainment strategies, eagerness and vigilance, would help predict or induce explicit adaptive business behaviour or goal-attainment competencies. This non-compliance of business behaviour to the Regulatory Focus model may have been a result of methods used in laboratory settings being less appropriate in an applied setting.

Measuring eagerness and vigilant strategies by a count of actions is common in laboratory experiments about Regulatory Focus. Using the number of actions taken to measure eagerness and vigilant strategies however loses meaning in an applied context. Any action a business takes has implications, including financial costs or different levels of effort or complexity to implement. It is unrealistic to expect a business to take the full complement of actions offered. Therefore caution is needed in interpreting the failure to reject the null hypotheses as evidence that businesses do not behaviour in accordance to the Regulatory Focus model.

8.3.3 Transferability of research findings

This study used Regulatory Focus to apply to the individual-level goal-orientated decision-making process of businesses, akin to the focus on individual-level decision-making about mobility in travel behaviour research. This focus on the individual decision-making of business individuals therefore provides similar opportunities and limitations to the transferability of research findings. The findings of greatest transferability pertain to how businesses interpret changes to access as impacting a selection of business goals, and the ways in which they adapt to protect and pursue their business.

This study was not intended to be generalised to all town centre business populations. The decision to focus on an inner city study area was purposeful. Such regions are increasingly becoming a focus for sustainable transport initiatives to deal with the problems of car dependency such as traffic congestion, parking demand and environmental pollution. Generalisations of the results of this study will be most appropriate in centres where sustainable transport policy initiatives are aimed at securing the longer term economic viability and liveability of the area, which businesses ultimately benefit from too. The research will also be transferable to business populations in town centres where demands for car parking space threaten the ongoing convenience and appeal of a local centre as a destination. In an Australian context this is likely to be restricted in the short-term to inner city regions of Australian cities which were established before cars became such a popular mode of travel. The trend of increasing population densities in Australian cities will mean that more LGAs in Australian cities will find this study relevant, especially in cases where current levels of car use cannot be sustained in the future. Outside Australia, efforts to generalise the findings need to take into account contextual factors such as popularity and acceptance of transport modes in the local community, the design of transport access options outside business premises, and the relative power the local business community has in influencing policy decisions.

Secondly caution is needed in generalising the outcomes of the research to all businesses. The research focused on only three business types: Food Service, Food and Health stores, and Fashion. These businesses are commonly found in local town centres and require a regular flow of customers to be viable. Their customers can also have different access needs related to length of stay, time of travel as well as the type of goods and services. Surprisingly, the analysis of the Town Centre Business Survey did not find statistically significant differences

in how Food Service, Food and Health stores, and Fashion businesses responded to the scenarios. Insufficient sample size, particularly in relation to Fashion businesses and when the sample was split multiple ways may have compromised the ability to find statistically significant differences.

8.3.4 Limits to the realism of hypothetical business reactions

Hypothetical bias can compromise the accuracy of business responses in stated preference surveys. In this research, respondents were asked to indicate how they would respond to a set of scenarios but what might be true in answering a hypothetical scenario cannot be guaranteed to be true when confronted with the 'real' event. This problem of hypothetical bias is also encountered in the Regulatory Focus psychological literature where specially constructed cognitive tasks are used to test the hypotheses. Simplicity of the cognitive tasks can be a means to reduce the concern about hypothetical bias, until trying to infer how people would act in the complexity of real-life situations. This research sought to contextualise Regulatory Focus to a meaningful applied situation but could not avoid the issues that arise with trying to reflect realism.

In real life, news of a transport policy comes ahead of implementation of a policy. The time lag provides an opportunity for businesses to build up anxiety, resistance and possibly even enthusiasm about the change. This period of time lag could not be replicated in an experimental survey design. Targeting businesses in areas that were undergoing change may have increased the saliency of the survey, but would have been logistically difficult to survey an adequate sample size or survey a random sampled population. Moreover, the inclusion of the hypothetical scenarios in the Town Centre Business Survey were designed to avoid replicating the stress that business owners may normally feel about a change to their business street.

Undoubtedly the hypothetical scenarios had differing levels of meaningfulness to the survey respondents. It was apparent during the fieldwork that businesses had different types of access features outside their business which is likely to have had an influence on their response. Respondents also spoke of instances where business had already experienced changes outside their business which some of their neighbouring businesses did not

experience. [45] The decision to conduct the survey with a random sample, and the categorisation of town centres by their Motility (TCOpportunity and TCBarriers) were two ways this study tried to control for different experiences of accessibility amongst the businesses. However the survey data analysis did not control for variations of accessibility experienced by businesses within the same centre but this would be a worthy focus in future analysis.

Effort had been made to present a list of actions to businesses that were grounded in realism. The lists were constructed from those observed in the historical case-studies and the Local Government Focus Groups, as well as possibilities identified in the literature. All business actions are associated with some level of resource cost, which includes effort, finance, time and skills but in the Town Centre Business Survey all actions were 'costless'. No information was provided about costs associated with each action, and no information was collected from respondents about their perception of costs. Despite being able to choose as many actions as they wanted respondents were surprisingly modest in the number of choices they made. This modesty could indicate that respondents were incorporating resourcing considerations into their choices, thereby providing support for the realism of the survey. However the between-subject variability of how businesses were accounting for resource costs of actions could also indicate that the findings from the data analysis may not be accurately reflecting the reality.

From a pragmatist perspective, the stated intention to act may be different to actual behaviour however the intention to act can be as powerful or more powerful in how it shapes policy thinking. Policy makers anticipate business response when forming, determining and implementing policies. This research provides new information about businesses stated intention and differentiates the chosen actions as synergetic and antagonistic to policy goals to reflect how policy makers may interpret business actions.

8.3.5 Challenges in studying goal-orientated business behaviour

It is possible that the Town Centre Business Survey was not able to capture the dynamic process of individual decision-making process well-enough to measure it. This is a limitation shared with other studies on the human decision-making process, and especially for those that are orientated around behaviour change.

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[45] This qualitative data was recorded in the fieldwork diary and will be used in future analysis of business experience of access changes.

Separating the decision-making process into different scenarios of the Town Centre Business Survey was aimed at slowing the decision-making process down enough to capture information about it. This survey could be described as an adaptive-fixed model within a stated choice experiment. That is, it allowed for businesses to shift Regulatory Focus between Events but not within the same event. Therefore the survey design was ill-equipped to account for the flexibility of businesses to independently shuttle between Promotion Focus and Prevention Focus goal concerns when responding to a scenario, or for them to be managing two goal concerns at the same time.

The information and memories respondents referenced in their goal-orientated decision-making were not captured in the survey. This self-reported information was challenging to capture in the survey instrument which was focused on capturing quantitative data for statistical analysis. Capturing qualitative data in audio-recorded interviews may have been more effective but may have negatively affected the willingness of respondents to participate due to concerns about confidentiality and intrusion. The collection of survey responses in the field using WAPI did result in respondents talking more about issues that were raised in the survey, and this included respondents sharing the rationale for their choices. These were unstructured interviews and the content of these conversations were recorded and anonymised in fieldwork notes after each encounter. Analysis of this qualitative data was out-of-scope for this research but will be the focus of future research.

8.4 Future directions

The large population of smaller businesses that rely on being accessible should be reflected more in transport policy research. It takes time for businesses to absorb the implications of the new street environment and how they want to adapt. Further research should focus on the issue of the diffusion of experience amongst businesses and how this can delay acceptance and increase opposition to policy initiatives. Research that taps into this reflective process may be better equipped to understand how businesses share information and incorporate shared information into their decision-making considerations.

Implementing structural changes to transport is a time-consuming and expensive process and when the community is in opposition it can jeopardise the implementation of worthwhile initiatives. This study showed there is a case for incorporating the power of the smaller business community to affect policy outcomes, but this may not be enough. Diffusion of

research ideas into policy practice is subject to various practical and attitudinal barriers. The data from this study about business power could be used to assess the receptivity of policymakers to new types of data, which itself would be a disruption to their normal practice of policy assessments.

Data collected in this study could be used to answer some different questions about business behaviour. Qualitative notes taken during the fieldwork are a source of additional insight into business perspectives and the context in which they run a business. The data set of business responses in the Town Centre Business Survey could answer questions about the common characteristics of highly adaptive and poorly adaptive businesses, and provides an alternative means of validating if the conclusions from the hypothesis testing are 'true' in respect to self-reported explanations by businesses. Additionally there are opportunities to model business responses within a town centre environment, to assess how a mix of businesses may exert pressure on the policy process. The qualitative data is a large and rich data set, and will be explored in future research.

Collecting data about how businesses respond to changes may not be easy but it is worthwhile. This study found there were benefits in using new technology and the Regulatory Focus message framing to engage respondents in the study. A future direction for sustainable transport policy research is to explore the opportunities of new technology and social marketing to capture and share information about shifts in travel behaviour. This could help establish more cross-fertilisation of ideas between transport studies and the retail marketing literature which has more influence on business thinking.

Chapter 9   Appendices

Appendix 1: International definitions for business size based on count of employees

Jurisdiction	Micro	Small	Medium	Large
Australia	Between 1-4 employees	Between 5-20 employees	Between 20-199 employees	More than 200 employees
New Zealand*	Less than five employees	Between 6- 49 employees	Between 50- 99 employees	More than 100 employees
UK**		Not more than 50 employees	Not more than 250 employees	More than 250 employees
Europe#	Less than 10 employees	Between 10-49 employees	Between 50-250 employees	More than 250 employees
Canada##	Between 1-4 employees	Between 5- 49 employees	Between 50-499 employees	More than 500 employees

* No official definition in New Zealand. This is the definition used by New Zealand Centre for Small Business Research at Massey University http://www.massey.ac.nz/massey/research/centres-research/new-zealand-centre-for-sme-research/about-smes/about-smes_home.cfm

** University of Strathclyde Glasgow www.lib.strath.ac.uk/busweb/guides/smedefine.htm

European Commission (2003) The new SME definition: user guide.

Industry Canada www.ic.gc.ca/eic/site/cis-sic.nsf/eng/h_00005.html

Appendix 2: Different categorisation of retail businesses within the relevant literature

Source	Category	Definition includes
Whitehead, Preston and Holvad (2005 p.882) In total nine categories were defined to capture all types of businesses and public services that may be found within the bounds of Nottingham, UK. Only four categories related to shop-based businesses are listed.	Comparison retail	Fashion, jewellery, gift shops
	Convenience/bulk retail	Furniture, groceries
	Daytime leisure	Restaurants, cafes, and other lunchtime food outlets, trading primarily during daytime hours
	Night-time leisure	Predominantly bars, nightclubs, pubs, restaurants, cafes, cinemas and theatres, trading primarily during night time hours
Castillo-Manzano and López-Valpuesta (2009)	Clothing and accessories	Businesses not defined but use of two separate binary variables means businesses could be identified as selling both.
	Electronics and household appliances	Also made a distinction between businesses belonging to a chain and independent businesses, and those located within a mall environment and those on the street.
Reimers and Clulow (2004 p.211) In total 11 categories were defined to capture all types of businesses and public services that may be found within a town centre of Melbourne. Only eight categories related to shop-based businesses are listed.	Supermarkets	
	Food Stores and Health	Butchers, bakers, grocers, chemists
	Food Service	Cafes, fast food outlets, restaurants
	Hardware	Paint, plumbing supplies, gardening
	Homeware	Furniture, carpet, curtains, electrical goods
	Fashion	Women's apparel, shoes, lingerie, jewellery
	Leisure Products	Books, photography, toys, music, giftware, camping, bicycles
	Consumer Services	Beauty salons, electrical repairs, locksmith, etc.
Stantec (2011) This report made a distinction between businesses located on the same grade-level as the bike lane, and located in the upper level offices of buildings in the study area. The office tenants, as well as	Food Service Other Service Hotel Convenience Retail	The business that fall within these different categories of grade-level businesses were not defined.

Source	Category	Definition includes
property owners were surveyed as a separate group in the economic impact study.	Other Retail Other	
Lee and March (2010) The paper categorises the features of the case-study shopping strip with examples of business types, but in the data reports on trip purpose as defined by the customer.	Speciality retail	Clothing, homewares, bookshops
	General retailing	Supermarket, grocery, butcher, newsagency
	Cafes and restaurants	Notes that some establishments are well known and therefore have a regional catchment.
	Cinema and small theatres	
Australian Bureau of Statistics (ABS) There are six categories of retail trade subgroups and an additional 33 classes of businesses categorised in the 8501.0 - Retail Trade, Australia. The categories are the same as those used in the Australian and New Zealand Standard Industry Classification (ANZSIC) scheme.	Food retailing	Supermarket and grocery stores, liquor retailing and other specialised food retailing.
	Household goods retailing	Furniture, floor coverings, textiles, and electrical goods.
	Hardware, building and garden supplies retailing	Self-explanatory
	Clothing, footwear and personal accessory retailing	Self-explanatory but also includes department stores.
	Other retailing	Newspaper and book retailing, recreational goods, pharmaceutical and cosmetic retailing
	Cafes, restaurants and takeaway Food Services	Self-explanatory

Appendix 3: Validation of the RFSS scale

As was done in Ouschan *et al.* (2007), a Principal Component Analysis (PCA) was run on the correlation matrix for the 14 items of the RFSS scale *(df* = 91) to analyse the effectiveness of the scale in measuring vigilance and eagerness strategy endorsement. This was then followed by a Confirmatory Factor Analysis (CFA) to test plausible alternative models (Jackson, Gillaspy and Purc-Stephenson, 2009). The repetition of words 'success' and 'failure' in the RFSS statements, make approach or avoidance in goal pursuit a plausible alternative to the vigilance-eagerness model. Ouschan *et al.* (2007) investigated the alternative model and found the vigilance-eagerness model a better fit. To confirm the RFSS was working as intended in this research the responses collected from businesses in the Town Centre Business Survey were subjected to a CFA, using SPSS Amos.

Sample size (N=156) was assessed as adequate because it satisfies the sample size requirements of N=142 for *df* = 90, for achieving a power of analysis of 0.80 (MacCallum, Browne and Sugawara, 1996 p .144). Examination of the correlation matrix confirmed it was appropriate for factor analysis, as there were 13 cases where there were Spearman's *rho* $\geq$ 0.3. The dataset satisfies Bartlett's test of sphericity, with p<0.001. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.720, which satisfies the accepted level of $\geq$ 0.6. P-Plots of the differences between the two scales were confirmed to be linear. No outliers were observed.

On the first run of the PCA rotated using Oblimin with Kaiser normalisation, four components had Eigenvalues of $\geq$ 1.0 (2.685, 2.602, 1.328, 1.067). These four components accounted for 54.9 percent of the variance. Examination of the Scree Plot indicated the first two components as the most important. A second PCA rotated using Oblimin with Kaiser normalisation was run to extract two factors, replicating that done by Ouschan *et al.* (2007). The factors accounted for 37.8 percent of the variance, with the first accounting for 19 percent. As intended when rotated, all the items measuring Prevention Focus strategies loaded on a different factor, to items measuring Promotion Focus strategies. The components were orthogonal, r = 0.08 confirming the two scales were independent of each other.

The maximum likelihood estimations for the CFA were obtained for each model in a two-step process. First, an independence model was run as a baseline measure. This involved loading each RFSS item on the anticipated latent variable and not permitting correlations between

error terms. The results were then examined to identify covariances of error terms associated with the same latent variable. Where these existed and their modification index (M.I.) was greater than 4.0, the model was changed in AMOS to permit the correlation. A visual representation of the models and permitted correlations (denoted by bi-directional arrows) is shown in Figure 9-1.

Figure 9-1: Model 1 and 2 compared, showing permitted error term correlations

Model 1: vigilance-eagerness   Model 2: failure-sucess
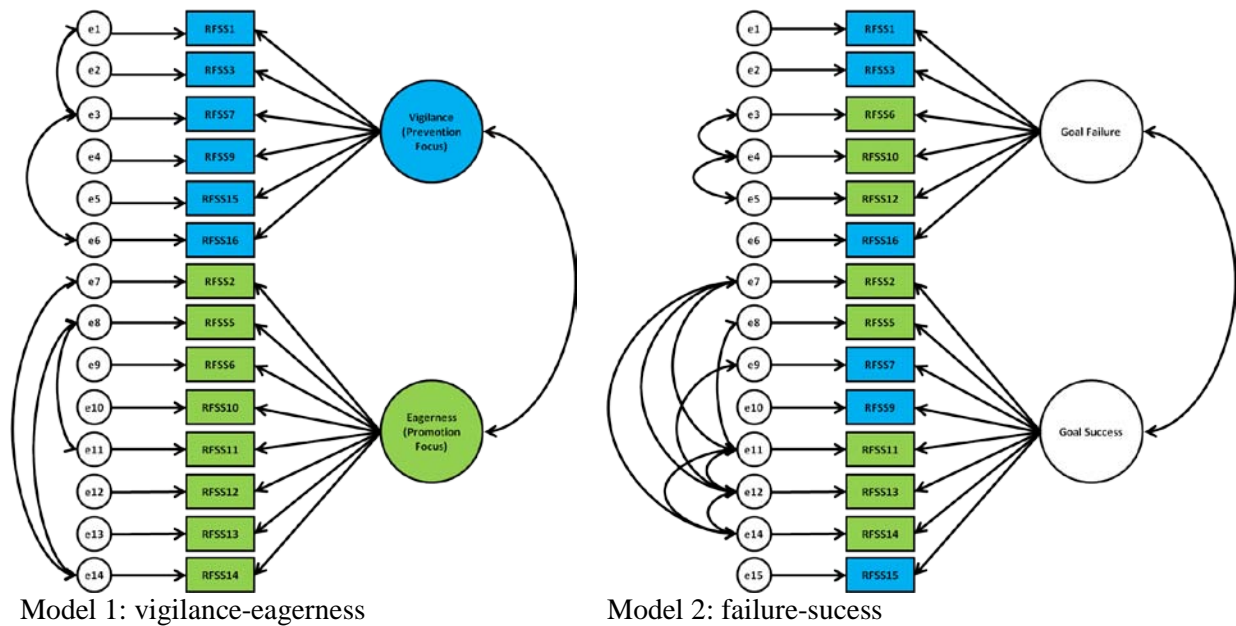
Note: RFSS items related to Prevention Focus shaded blue, Promotion Focus are shaded green.

The standardized regression coefficients from the CFA on Models 1 and 2 and measures of model fit were compared to the Ouschan *et al.* (2007) results, and these are presented in Table 9-1. The degrees of freedom in each model is a function of the number of covariances between permitted error terms, Model 1 had a higher level of degrees of freedom ($df = 71$) than Model 2 ($df = 66$), as well as the results reported in Ouschan *et al.* (2007). The standardized regression coefficients for Model 1 in both studies are all positive. In contrast, Model 2 in both studies included a number of negative correlations making it harder to interpret what the scale is measuring. As in the Ouschan *et al.* (2007) study, the estimated correlation between the latent variables in Model 1 was weak (r = -0.06) which is consistent with expectations that the latent variables are independent dimensions. Model 2 however showed a high negative correlation (r = -0.94) suggesting the latent variables of goal failure-success are polar opposites.

Table 9-1: Comparing standardized regression coefficients from the CFA for two models

Regulatory Focus Strategies Scale (RFSS)		Models		This study		Ouschan *et al.* (2007)	
Item	**Item Statement**	**1**	**2**	**Model 1**	**Model 2**	**Model 1**	**Model 2**
RFSS1	Being cautious is the best way to avoid failure.	PV	F	0.69	0.69	0.65	0.70
RFSS2	If you keep worrying about mistakes, you will never achieve anything.	PM	S	0.45	0.18	0.47	-0.18
RFSS3	To avoid failure, one has to be careful.	PV	F	0.63	0.65	0.74	0.72
RFSS5	To achieve something, you need to be optimistic.	PM	S	0.33	-0.05	0.60	-0.16
RFSS6	You have to take risks if you want to avoid failing.	PM	F	0.61	-0.07	0.22	-0.17
RFSS7	To achieve something, it is most important to know all the potential obstacles.	PV	S	0.21	-0.18	0.33	0.31
RFSS9	To achieve something, one must be cautious.	PV	S	0.66	-0.68	0.68	0.70
RFSS10	To avoid failure, you have to be enthusiastic.	PM	F	0.30	0.20	0.56	0.00
RFSS11	Taking risks is essential for success.	PM	S	0.53	0.11	0.48	-0.22
RFSS12	If you want to avoid failing, the worst thing you can do is to think about making mistakes.	PM	F	0.45	-0.05	0.39	-0.14
RFSS13	To achieve something, one must try all possible ways of achieving it.	PM	S	0.39	-0.10	0.30	0.19
RFSS14	The worst thing you can do when trying to achieve a goal is to worry about making mistakes.	PM	S	0.39	0.19	0.44	-0.11
RFSS15	Being cautious is the best policy for success.	PV	S	0.71	-0.71	0.81	0.82
RFSS16	To avoid failure, it is important to keep in mind all the potential obstacles that might get in your way.	PV	F	0.20	0.22	0.33	0.35
	χ^2			**87.247**	**133.0**	166.1	287.2
	d.f.			**71**	**66**	68	68
	CFI			**0.946**	**0.777**	0.915	0.818
	RMSEA			**0.038**	**0.081**	0.059	0.087
	TLI			**0.931**	**0.692**	-	-

Note: Model 1 is Regulatory Focus vigilance-eagerness where PV denoting items for the latent variable Prevention Focus strategies and PM, Promotion Focus strategies. Model 2 is the alternative approach-avoidance in goal pursuit with F denoting the latent variable goal failure and S denoting goal success.

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As recommended by (Thompson, 2004; Jackson, Gillaspy and Purc-Stephenson, 2009), multiple measures were used to evaluate model fit. These are presented at the bottom of Table 9-1. The chi-squared (χ^2) significance test is a measure often used in CFA (where acceptance of the null indicates good model fit) despite its sensitivity to large sample sizes (Thompson, 2004). Applying the chi-squared significance test to Models 1 and 2 found both had χ^2 values being > 51.739 for df = 70 at α = 0.950 suggesting poor model fit, although Model 1 had a probability level of 0.092, indicating that the departure of the data from the model is not significant. Thompson (2004) however notes the χ^2 test is more useful for comparing nested models. Table 9-2 presents the results for independent and modified versions of Models 1 and 2. There was a 65 percent level of improvement in Model 1, compared to 39 percent in Model 2 when the independent model was modified to allow error covariances. Indicating a better model fit. Additionally the complexity of the modifications in Model 2, as indicated by the 8 covariances permitted on the Goal Success latent variable, indicate that the data needed substantial help to fit the model.

Table 9-2: Using Chi-squared tests to compare nested models

	Model 1		Model 2	
Comparative fit	χ^2	**df**	χ^2	**df**
Independent model	252.754	152	219.806	76
Modified model	87.247	71	133.0	66
(Independent – Modified)	165.507	81	86.805	10
(Independent – Modified) / Independent	0.65		0.39	

Alternative measures for goodness of fit provide additional support to favour Model 1 over Model 2. The Comparative Fit Index (CFI) compares the models to the baseline null or independence model, a CFI value$\geq$ 0.95 indicates good fit. Model 1 is close to s atisfying the rule of thumb and performs better than that reported by Ouschan *et al.* (2007). A Tucker-Lewis Index (TFI) value$\geq$ 0.95 also indicates a good level of fit, with Model 1 out -performing Model 2. The Root-Mean Square Error of Approximation (RMSEA) "estimates how well the model parameters will do at reproducing the population covariances" (Thompson, 2004 p .140). The smaller the value, the better the fit, with RMSEA $\leq$ 0.06 generally accepted as a close fit. Model 1, in both studies performed better than the alternative Model 2.

The purpose for conducting the PCA and CFA on the RFSS is to determine if it is working as intended. The less than ideal results from the reliability analysis, particularly for the Promotion Focus subscale were grounds for concern. However the results from the PCA and CFA provide reassurance that the assignment of RFSS items to the latent variables is as intended. Model 1 was confirmed to be a better fit to the data than the plausible alternative (Model 2). The latent variables for Model 1 were found to be orthogonal (r = -0.06), which is consistent with RFT, the latent variables of the alternative model was negatively correlated. Based on this evidence, the RFSS is assumed to be working as a measure of vigilance and eagerness strategy endorsement amongst business respondents. The next part reports differences observed in the RFSS scores amongst respondents.

Appendix 4: The Town Centre Business Survey Prenotification letter

THE UNIVERSITY OF SYDNEY

Town Centre Business Survey

My name is Claudine and I am a research student at The University of Sydney. I would like your help with my research.

How people travel to town centres changes over time. Sometimes these changes are good for business, sometimes they are not so good. I want to understand how your business changes if your customers travel differently.

Claudine J Moutou
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ABN 15 211 513 464
CRICOS 00026A

What it involves
I will be visiting your business tomorrow at a time when it is not so busy. I will have a survey that I hope you will complete. The survey will take less than 15 minutes. As a thank you for your help you are invited to enter the prize draw described below.

Why you have been chosen
Small business plays an important part in everyday life but too often the views of smaller businesses are not well understood. You are one of a small group to receive an invitation to participate in this research.

Participation is voluntary. You can choose not to participate.

For your information
This research is conducted as part of a PhD at the University of Sydney under the supervision of Associate Professor Stephen Greaves and Professor Corinne Mulley.

Please see over for further information.

Enter the 'Thank You' prize draw

Book of 10 movie tickets

As a thank you for helping with this research there is a prize draw for a book of 10 movie tickets. If you win you can use the movie tickets to treat your family, your staff or your customers. To enter simply complete your details below. I will collect your entry when I visit your shop.

_____
Business Name

Please tick the cinema of your choice.
☐ Dendy
☐ Palace
☐ Hoyts
☐ Greater Union

_____ _____
Your Name   Phone

Town Centre Business Survey

PARTICIPANT INFORMATION STATEMENT

(1) Can I withdraw from the study?

Being in this study is completely voluntary - you are not under any obligation to consent to complete the survey. Submitting a completed questionnaire/survey is an indication of your consent to participate in the study. You can withdraw any time prior to submitting your completed survey. Once you have submitted your survey anonymously, your responses cannot be withdrawn.

(2) Will anyone else know the results?

All aspects of the study, including results, will be strictly confidential and only the researchers will have access to information on participants A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

(3) Will the study benefit me?

We cannot guarantee that you will benefit from the study. Participating in the study may however give you some ideas for helping your business to cope with changes in the future.

(4) Can I tell other people about the study?

Yes, you can tell other people about the study.

(5) What if I require further information about the study or my involvement in it?

When you have read this information, Claudine will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Claudine via claudine.moutou@sydney.edu.au or 02 9351 0162.

(6) What if I have a complaint or any concerns?

Any person with concerns or complaints about the conduct of a research study can contact The Manager, Human Ethics Administration, University of Sydney on +61 2 8627 8176 (Telephone); +61 2 8627 8177 (Facsimile) or ro.humanethics@sydney.edu.au (Email).

This information sheet is for you to keep

To enter the 'Thank You' prize draw
simply fill in your details and tear off the coupon.

Appendix 5: Differences in the perception of business impacts

Customer Attraction (CA)

Businesses of all types indicated that the additional accessibility by public transport, cycling and walking would have a favourable impact customer attraction (CA). The mean score for CA was assessed on two measures – attracting new customers (Customers1) and keeping regular customers pleased (Customers2). Significantly (χ^2=21.9) lower numbers of respondents reported a positive response to Customers2 than Customers1 (see Table 9-3).

Table 9-3: Frequency table for Customers1 and Customers2

Attitudinal scale	Customers1		Customers2	
	Frequency	Percent	Frequency	Percent
Definitely yes	74	47.4	38	24.4
Probably yes	52	33.3	63	40.4
Maybe	23	14.7	47	30.1
Probably not	7	4.5	7	4.5
Definitely not	0	0.0	1	0.6
Total	**156**	**100.0**	**156**	**100.0**

A two-tailed Pearson Chi-test confirmed businesses did not indicate significantly different views about Customers1 (Chi-square 9.843, p=0.131) or Customers2 (Chi-square 12.120, p=0.146) despite there being apparent differences in Figure 9-2. Customers1 was however statistically significant different between LGAs at p<0.1 (Chi-square 12.165, p=0.058). For Customers2, gender (Chi-square 9.502, p= 0.050) and age (Chi-square 17.604, p=0.024) had a statistically significant effect on businesses perception of impact. No significant difference was found between businesses of different sizes or between owners and managers.

Figure 9-2: Impact of added mobility on customer attraction

Further examination of the differences in responses to Customers1 across LGAs revealed that respondents in Marrickville were the most optimistic that the change would attract more new customers ($\bar{x}$=0.667 SD=0.320). The scores in Leichhardt ($\bar{x}$=0.619 SD=0.453) and City of Sydney ($\bar{x}$=0.587 SD=0.485) were not significantly different (ANOVA, F=0.458 p=0.633 two-tailed test). For Customers2, females expressed more certainty that their regular customers would be happy about the change ($\bar{x}$=0.539, SD=0.417) compared to males ($\bar{x}$=0.330, SD=0.430) (ANOVA, F=9.168, p=0.003).

Business Competitiveness (BC)

The first business competitiveness (BC) item (BizComp1) focused on competitive advantages while BizComp2 focused on the likelihood that competitors would be attracted to the street. Almost 65 percent of businesses surveyed thought the additional access would probably or definitely provide them with additional competitive advantages (see Table 9-4). A gain in new competitive advantages is, in a competitive market place, often coupled with more businesses wanting to benefit from these advantages. This was evidently the expectation of 57.4 percent of respondents who indicated the new accessibility would probably or definitely attract new business competitors to their street (BizComp2).

Table 9-4: Frequency tables for BizComp1 and BizComp2

	BizComp1		BizComp2	
Attitudinal scale	**Frequency**	**Percent**	**Frequency**	**Percent**
Definitely yes	40	26.0	28	18.1
Probably yes	60	39.0	61	39.4
Maybe	36	23.4	44	28.4
Probably not	18	11.7	21	13.5
Definitely not	0	0.0	1	0.6
Total	**154**	**100.0**	**155**	**100.0**

The trade-off between gaining competitive advantages and having to compete with new businesses was acknowledged by businesses during the fieldwork data collection. Businesses spoke of the new competition as a threat to business, but also acknowledged that there could also be benefits as new businesses can add diversity and strengthen customer interest in the town centre. According to the Local Government Focus Group smaller businesses in town centres were less likely to view competition as positive. In their opinion, only the 'business savvy', described as a small minority, would associate competition as positive. Guided by the

first-hand experience of the Focus Group the variable BizComp2 was included in the survey to capture a perception of negative business impact. A new reversed variable BizComp2R was created from BizComp2 by recoding values -1 to 1. Figure 9-3 includes a bar chart of BizComp1 and BizComp2R. The analysis that follows adopts the BizComp2R to standardise the measure of sentiment about impacts where a value of -1 is negative and 1 is positive.[46]

Figure 9-3: Impact of added mobility on business competitiveness
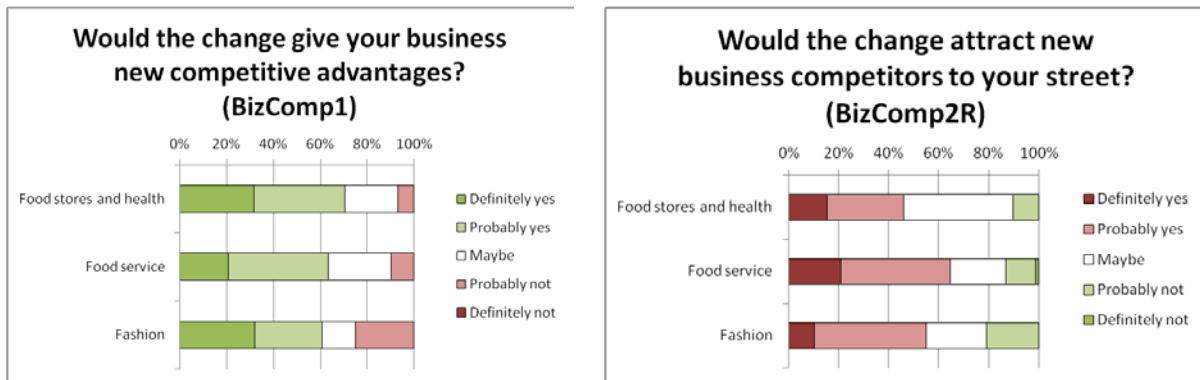
As seen in Figure 9-3, business type appears to be an influencing factor in perspectives about business competitiveness, however a comparison of means indicates it was not statistically significantly different amongst business types for either BizComp1 (ANOVA, F=1.066, p=0.347 two-tailed test) or BizComp2R (ANOVA, F=0.917, p=0.402 two-tailed test). No significant difference was found for other explanatory variables: LGA, Age, Gender, Business Size and Ownership. The size of the town centre did have a significant influence on BizComp1 (ANOVA, F= 4.062 p=0.046) and the combined variable BC (ANOVA, F=7.424, p=0.007). Respondents located in town centres perceived BC to be more adversely affected ($\bar{x}$=0.005, SD=0.188) than those located in villages ($\bar{x}$=0.103, SD=0.260). As town centres are more often the focus of transport infrastructure improvements on account of their larger amount of customer traffic this difference in opinion could reflect previous experience. It could also reflect the perceived transport needs in different sized centres.

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[46] The ambiguity of BizComp2 is acknowledged. The decision to assume it reflects a negative perception of impact was made on the basis that it was consistent with expectations about small businesses from the literature and the Local Government Focus Groups. It will however be a point of later discussion in relation to the higher than expected positivity expressed by businesses about the changes in access, the timeframes in which businesses assess their business goals and the flexibility of businesses to adapt their expectations and strategic behaviour when faced with a constraint or threat to their business goals.

Town Centre Attractiveness (TCA)

More than three quarters of businesses anticipated that the added mobility options would be likely to add to the vibrancy and busyness of the town centre (Town1) and make it a more appealing place to shop (Town2). There was no significant difference in perceptions of impact between Town1 (Chi-square 3.843, p=0.428) and Town2 (Chi-square 7.555, p=0.109). The breakdown of responses are shown in Table 9-5.

Table 9-5: Frequency tables for Town1 and Town2

	Town1		Town2	
Attitudinal scale	**Frequency**	**Percent**	**Frequency**	**Percent**
Definitely yes	42	27.5	49	32.2
Probably yes	77	50.3	65	42.8
Maybe	28	18.3	30	19.7
Probably not	6	3.9	8	5.3
Definitely not	0	0.0	0	0.0
Total	**153**	**100**	**152**	**100**

As with the other measures, Town1 and Town2 were examined against explanatory factors LGA, Centre Type, Age, Business Size, Ownership and Gender. The only significant difference was between the mean scores for Town2 (ANOVA, F=6.018 p=0.015), with females ($\bar{x}$=0.570, S.D=0.432) tending to view the change more optimistically than males ($\bar{x}$=0.445, S.D=0.045). Despite apparent visual differences in the bar charts at Figure 9-4 there was no significant difference between business types for Town1 (Chi-square 9.722, p=0.285) or Town2 (Chi-square 11.850, p=0.158). The apparent significance in the bar chart can be explained by females outnumbering men amongst the Fashion businesses, as well as Fashion being a less represented group in the sample.

Figure 9-4: Impact of added mobility on town centre attractiveness
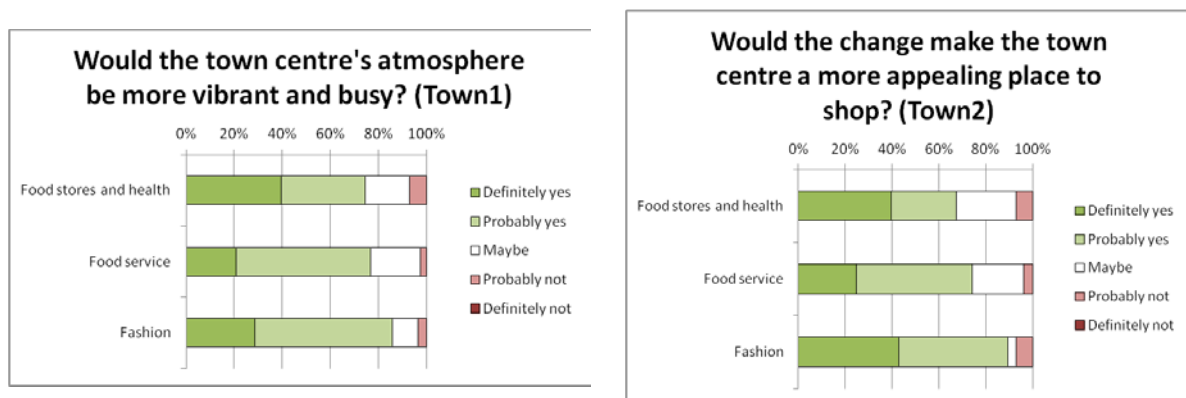
Chapter 10   References

Note: Newspaper reports used in the historical case-study rarely had the reporter's name included. Consequently the large majority of these materials are referenced as 'Anonymous' in keeping with Harvard referencing requirements.

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