Is Tourism a Driver for Public Transport Investment?

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Abstract

Modern society is structured around the desire for high mobility; the consequence has seen cities primarily planned around the needs of the automobile. Car dominant transport planning has underpinned the growth of cities and has created vast, sprawling and highly inefficient urban areas. Increasingly, public transportation is seen as the cure for reducing automobile externalities. However, the traditional funding mechanisms and infrastructural appraisals that dictate transportation investment fail to take into consideration external and environmental effects; ensuring that public transport investment is perceived to be less cost effective.

This thesis has taken a different approach to this recognised funding problem; the research identified the interdisciplinary need for sustainable transportation solutions within the tourism industry. The purpose of this study was to assess the role of public transport in the desire to grow Auckland’s visitor economy and to identify whether these benefits could be used as leverage for increased public transport investment. International literature provided the basis of knowledge; this shaped the key informant interviews that were conducted with tourism and planning professionals. Two international case study cities were used to provide good practice examples and to help shape recommendations.

The results have shown a distinct connection between urban tourism development and public transportation provision. Public transport investment would facilitate growth in the Auckland visitor economy, helping attract tourists and keeping them in the region for extended periods of time. The underlying need was for enhanced investment; however, this research did identify specific, short-term, cost effective, practical solutions that could enhance visitor viability on Auckland’s public transport network.

This research has differed from any other known research in New Zealand. In that sense, this thesis has been completely explorative in ascertaining the connection between tourism and public transport. By attempting to understand the need for public transport from a tourism perspective, a distinctly different approach has been taken to identify further reasoning and requirement for public transport investment in the Auckland region.
I would like to express my gratitude to all of the people that have helped me throughout this year.

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Abbreviations

CBD = Central Business District
NZTS = New Zealand Transport Strategy
RMA = Resource Management Act
LGA = Local Government Act
LTMA = Land Transport Management Act
GPS = Government Policy Statement on Land Transport Funding
RoNS = Roads of National Significance
MUL = Metropolitan Urban Limit
TDM = Travel Demand Management
RWC = Rugby World Cup
FIT = Free Independent Traveller
BART = Bay Area Rapid Transit
Transportation planning underpins how cities are designed and subsequently determines how cities grow. Modern cities are primarily planned and engineered around the needs of the automobile; this has resulted in urban sprawl and the rapid suburbanisation of developed nations. Contemporary societies have become heavily reliant on automobiles, as they offer unrivalled levels of freedom and flexibility.

The current mobility underpinning modern society is only made possible by the abundance of cheap petroleum; however, this finite resource is running out. Commentators suggest that peak oil will be reached within the next 30 years. This has placed the modern way of life under considerable threat; it is recognised that technology alone cannot solve the problems or counteract future implications (OECD, 1996; Steg and Gifford, 2005; Gärling, 2007). The developed world is already heavily reliant on oil for transportation, in 2002, 97% of the world’s transportation was oil derived (Kenneth and Van Dender, 2008).

Global warming and climate change are perhaps the two largest issues facing the world in the 21st century. Although there are sceptics that argue these changes are not abnormal, there is a growing mass of scientific evidence to prove otherwise. The exploitation of finite resources and the degradation of the natural environment have created a world facing an uncertain future. This has led to a change of direction within the planning field; sustainable development is now one of the most important outcomes of modern planning (Berke and Conroy, 2000; Davoudi and Layard, 2001; Holden, 2008).

In OECD countries transportation is solely responsible for 30% of total energy consumption (OECD, 1995). In New Zealand, this is even higher, with transport responsible for over 40% of total energy use (New Zealand Government online, 2011). The need for sustainable transportation solutions becomes increasingly evident, if the planning profession is going to reach the desired goal of
sustainable development. Although this need has been identified within transport planning, it is contended that transportation planning is far from reaching sustainability (Banister, 2005; Banister et al., 2007).

Public transport is increasingly seen as a solution to two of New Zealand’s major transport problems: traffic congestion and the generation of greenhouse gases (Dravitzki and Lester, 2006). Public transport has been witness to a funding shortfall in many countries around the world, including New Zealand. This has primarily arisen from the makeup of the cost benefit appraisals that guide infrastructural investment. In order for transport investment to favour more sustainable modes, commentators suggest that policy making, planning and transport budgeting must be coordinated within a more sustainable framework (Richardson, 1997; Low et al., 2003; Dimitriou and Gakenheimer, 2011).

Sustainable transport solutions are required, not only to reduce New Zealand’s emissions, but increasingly, to maintain the growth of the New Zealand tourism industry. The tourism industry is by nature, completely reliant on transportation. Transport is responsible for around 75% of the CO2 emissions generated by tourism, with aviation representing the bulk part of it (40%) (World Tourism Organization, 2008: 9). In New Zealand transportation derived emissions are responsible for 90 per cent of the tourism industries footprint. The tourism industry has identified the need to respond to climate change and global warming. There is an understanding that transportation solutions will have to play a large role in reducing the industries environmental impact.

It has been identified that public transport plays an important role in urban tourism development (Thompson and Schofield, 2007; Albalate and Bel, 2010). A lack of knowledge on the importance of public transport in regards to specific economic impacts within destinations themselves has been identified. This research conducts an analysis on the role public transport will have in helping to develop the desired growth of Auckland’s visitor economy. These positive benefits will then be used to justify the need for public transport in the wider sense. To date, no similar research has been conducted. It is suggested that this research may help to address an interdisciplinary issue that has had very little attention both in New Zealand, and overseas.
1.1 Rationale for Research

This research was born out of many hours sitting in Auckland’s gridlocked streets and motorway network. In my lifetime, I have been witness to the continual expansion, widening and connecting up of Auckland’s motorway network. The overall result remains exactly the same - congestion, frustration and a transportation system unable to cope with Auckland’s growing population. To understand the imbalance that exists within transportation investment this study sets out to examine the frameworks that control infrastructure expenditure in New Zealand, and to identify the potential of incorporating secondary benefits that may arise out of public transport investment.

The underlying purpose of this research is to identify the connection between public transport and urban tourism. This study aims to investigate the potential impacts public transport can have on Auckland’s visitor economy and to understand the requirements and potential solutions to enhance visitor viability on Auckland’s public transport network. This interdisciplinary research is considered to be important to enhance the tourism industry, which is New Zealand’s largest earner of foreign currency and to ensure New Zealand’s largest city can progress towards creating a more sustainable transport system that is resilient in the uncertain future.

1.2 Scope of this Study

This research incorporates international literature and case studies to provide a comparative and theoretical understanding of the connection between sustainable tourism and sustainable transport and within the wider framework of sustainable urban development. The scope of the study will be further narrowed, to focus on the role of public transport in urban destination development. To assess the potential of this research topic, the wider Auckland region is used as the primary case study.

Auckland is the international commerce hub of the country and boasts the largest array of amenities and infrastructural provisions visitor economies rely upon. Auckland International Airport is the largest and most used gateway for
New Zealand; with 70% of all international visitors arriving in Auckland (Auckland International Airport Limited, 2007). The Auckland region has also been linked to over a quarter of the national tourism revenue (ARC, 2009b).

The region is experiencing rapid population expansion, and is expected to attain 60% of the nation’s growth over the next 30 years (Auckland Council, 2011b). Auckland has regionally specific transportation issues. It has one of the highest rates of car ownership in the world and the city is hampered by excessive congestion. This costs the nation over one billion dollars annually (Ministry for the Environment online, 2007).

Although this study will look at the way infrastructure projects are funded in New Zealand, this study is only highlighting problems and identifying potential solutions within this politically controlled realm. Therefore the scope of change associated would be comparatively low; it is envisaged that follow up studies could provide further weighting behind any identified solutions. Likewise the actual design and implementation of public transport will be largely outside the scope of this study. However, the different forms of public transport will be discussed against tourist preferences (if they indeed exist) to enable recommendations into what mode(s) of public transport are best suited for tourists to the Auckland region.

1.3 Research Questions and Objectives

Empirical research has identified the lack of academic literature identifying the effect public transport has in localised, city specific, urban tourism development. This literature gap is enhanced significantly in the New Zealand context. No literature was found connecting public transport to tourism development. The limited international literature that does exist is predominantly from the tourism field. This body of knowledge has recognised the importance of public transport in successful destinations however, there has been little emphasis given on the means of improving public transport through planning or the requirement in regard to the different segments that make up urban visitor economies. This research seeks to advance these identified gaps, and attempts to link these
potential benefits to future transportation expenditure allowances. This will also help progress another identified problem within planning literature, the gap between sustainable development and the planning frameworks that control transportation expenditure.

This research will investigate the identified problems through five research questions and objectives. The questions are designed in a linear progression, which will collectively provide the basis of information required to answer the over-arching research question:

**Can public transport provision positively influence urban tourism in New Zealand? Can these positive influences be used alongside the traditional needs to leverage additional funding for public transport infrastructure?**

The supplementary questions are as follows:

1. **Is there a need for public transport in tourism? From a national perspective and a regional Auckland viewpoint?**

   The first question is identified through a thorough examination of literature, and current tourism strategies and documents in New Zealand. This establishes the need for tourism in urban areas, and the importance of Auckland in relation to the national tourism industry. The literature then provides the need and positive impacts that can arise from public transport. This information will then be assessed against any visitor surveys and information gleaned from key informant interviews, to ascertain if there is a need for public transport provision in relation to Auckland’s tourism industry.

2. **Are there specific sectors of Auckland’s tourism industry that have an enhanced requirement for public transport infrastructure?**

   The second question seeks to identify if there are any sub-sectors of the Auckland tourism industry that are considered more reliant on public transportation. The literature review will attempt to identify any sectors, which have been shown to have a heightened connection. However, it is considered that because the problems may be regionally specific, the key informant interviews may provide the basis of relevant information.
3. **What makes a visitor friendly network? Is the Auckland public transport network visitor friendly? If not, what can be done to improve it?**

The third question is broken down into two sections. The factors that contribute to a positive visitor network are firstly identified, as this provides the framework upon which the current Auckland public transport network is assessed. The problems highlighted will then be addressed in the second section, partially through the identification good practice examples from the overseas case studies.

4. **With regard to visitor needs on public transport, are there any specific areas of Auckland’s public transport network that need improvement? Are there modal preferences that exist, and can such preferences influence future investment?**

The fourth question attempts to identify if there are any particular problems with Auckland’s public transport network. The literature review will identify key areas considered by tourism academics; this will shape the discussions with key informants, who in turn provide evidence on the perceived pinch points that may need improving. The second part of this question, seeks to identify if any modal preferences exist by tourists. This will be examined in literature, and assessed against case study findings and key informant opinions. If modal preferences do exist, the applicability of positive tourism implications will be discussed against any future investment.

5. **Can the identified needs and potential impacts on the visitor economy be used as further leverage on top of the identified existing needs for increasing investment into Auckland’s public transport network?**

The final question attempts to identify if any positive impacts can be used to gain further weighting towards increased investment into Auckland’s public transportation network. This will require an understanding of the mechanisms and key problems associated with infrastructural appraisals that control transport expenditure. The problems will be identified within the literature review, before a more thorough New Zealand specific overview of the current funding trends, problems and assumptions will be ascertained through the context chapter. The findings from the above questions will then be assessed
against the current frameworks, to see if positive tourism implications can enhance the need for public transport investment.

This research will provide valuable information on how tourism may help to increase the ability for public transport to gain much needed funding. This research will also help to determine planning and practical solutions that can address identified problems. This will help transportation planners realise the importance of incorporating the needs of the visitor economy into the design and administration of commuter based networks. This research will be useful to a variety of fields, looking to incorporate sustainable practices, increase tourism revenue and providing ways of obtaining additional funding.

1.4 Approach and Information Sources

This research was primarily conducted in alignment with the interpretive paradigm, this enabled the researcher to identify a particular setting (tourism in urban areas), and to understand the problem from the perspective of the visitor. This research consists almost entirely of qualitative sources, including a mixture of primary and secondary resources. The primary research consists of a string of semi-structured key informant interviews undertaken in Auckland, these interviews were categorised under the relevant objectives, and provided the basis of analysis to interpret the findings. Personal observations were used to enhance the interpretive paradigm; an assessment was conducted on the perceived ease of use of Auckland’s public transport network, information gathered throughout the literature determined what aspects were examined.

Overseas case studies were used to conceptualise good practice examples and to identify potential solutions that could be mirrored in Auckland. The findings of this research was then analysed against the primary data collection, which consisted of plans, strategies, legislation and funding structures. This ensured the study was integrated within the regional and national planning frameworks. There are also some limitations involved within this research, which will be discussed further in Chapter Three.
Chapter One: Introduction

1.5 Structure of Thesis

The structure of this thesis is organised in a linear pattern in relation to the research questions outlined above. The thesis starts off with a broad analysis of all relevant topics, before narrowing down the scope to a more focused topic as the thesis develops. Chapter Two comprises a literature review; this literature review will examine the underlying need for sustainable development and the connection that exists within the tourism industry. The drivers behind sustainable transport will be developed before an in-depth analysis of public transport’s role in urban destination development is investigated. Within this investigation, the literature review seeks to identify key areas of tourism specific concern or importance. The literature review concludes with an analysis of the problems associated with the funding of transportation projects, a central theme to this research.

Chapter Three provides the methodological framework and research design strategy that formulated the basis of this research. This chapter describes the rationale behind each approach taken, and the different techniques and sources of information that were used. This was to ensure the data collected would be relevant to the identified research objectives. The limitations reducing the applicability of the study are also discussed.

Chapter Four provides the contextual framework. Due to the significant breadth of this research, the context has included an extensive range of plans, policies, strategies, Acts and the associated governing bodies and agencies involved within tourism and transportation planning. This document analysis strategically focuses on the governing bodies and mechanisms responsible for transportation funding based on a national and regional perspective, as both contexts are important in relation to the findings of this research. To understand the impact transportation has had on Auckland’s growth and urban form, a historical overview of transportation planning was conducted. The overview of transport planning also includes a summary of current trends, and the positive impacts arising from recent investments.
Chapter Five consists of two case studies, identified as incorporating the needs of the tourism industry into their public transport planning. These cities were San Francisco and Singapore. This section focuses on practical solutions that could be implemented in the Auckland case study area. These practical solutions were first identified in literature, before the case study cities provided evidence on how to implement these ideas, such case study findings helped mould the recommendations of this research.

Chapter Six portrays the findings of this research combined with the discussion on the findings. This approach was deemed most applicable, considering the large scale and diverse nature of the research. This chapter is structured under the research objectives, and interwoven with international literature, and the findings discussed against relevant Auckland and New Zealand documentation. Each objective is discussed individually before an overall analysis of key informant opinions concludes the chapter.

The final chapter summarises the research with conclusions given for each of the five objectives. Some of these objectives are interpretive and build weighting behind the recommendations that are structured throughout. The principal findings of the research are discussed against the identified literature gaps, and overarching research question. This section is concluded with a discussion on the importance of the findings, the potential for future research and some last closing remarks.
The purpose of this literature review is to explore the connection between sustainable transport planning and sustainable tourism development. To understand this connection, the literature review draws on sources from within planning, tourism and sustainable development fields to establish the body of relevant literature, and to determine if any literature gaps exist. The basic frameworks that exist within this literature review are shown in (Figure 1), below. This literature review will help identify key themes in relation to public transport’s role in creating sustainable solutions for the tourism industry and the role public transport will play in reducing the energy footprint of modern day cities.

Figure 1: Literature review framework outline.

This chapter is set out in the order of the research objectives. The tourism industry is first defined, before the need for sustainable tourism is investigated. The literature review seeks to understand if there is a need for public transport in relation to tourism development. The importance of public transport is discussed before the tourism specific section of the literature review closes with the investigation of visitor requirements’ in relation to public transport. This will
provide information for Objective Three on any concerns and potential solutions that could be implemented. Literature concerning any sub-sectors of the industry will also be investigated to provide some basis for Objective Two.

After the identification of the connections between public transport and urban tourism development the need for public transportation is reviewed in the wider sense. This will be critical in providing background evidence for Objectives Four and Five. In order to understand the need for public transport, the problems associated with current transport patterns are analysed as are the drivers behind the need to provide sustainable solutions. The chapter will then identify the key problems restricting the growth of public transportation.

### 2.1 Tourism Defined

Tourism, according to the Oxford dictionary, is “the theory and practice of touring or travelling for pleasure”. According to Leiper (1979) the roots of tourism are thought to have Greek origins, with the term describing a circle, reflecting a key component of tourism, returning to the point of departure (Leiper, 1979: 391). A tourist, as classified by the World Tourism Authority is someone who moves away from home on a temporary or short-term basis for at least 24 hours, whether that be internal movements within a country (domestic tourism) or going to another country (international tourism) (Law, 2002: 2). McIntosh (1977) described tourism “as the science, art and business of attracting and transporting visitors, accommodating them and graciously catering to their needs and wants” (McIntosh and Goeldner, 1977: ix).

Today, tourism is one of the world’s largest and fastest growing industries. In 2010, the overall global tourism export exceeded US$ 1 trillion (World Tourism Organization, 2011). Tourism exports are said to account for 30% of the world’s commercial exports and as a category ranks fourth in size after fuels, chemicals and automotive products (World Tourism Organization, 2011).
2.2 Connection between Transport and Tourism

Transport has an inseparable connection with the tourism industry. Progression in transportation technology has helped form the modern tourism industry. Theobald (1994) argued that transport provided the accessibility required to create the first visitor economy. Advancements in shipping and the Roman roading network enabled Rome's wealthy to retreat to the seaside towns of Pompeii and Herculaneum (Theobald, 1994).

Steam powered trains and their associated railway lines brought about seaside resort styled developments in the United Kingdom during the 19th century (Robinson, 1976). The 20th century brought with it unlevelled advancements in the transportation sector; the mass produced automobile, tour busses and long distance passenger jet aircraft changed the way the world could be seen, and opened the door for mass intercontinental tourism. Advancements in technology enabled the traveller to go further, at greater speed and for less money (Prideaux, 2000). The significant tourism growth in New Zealand has only been made possible through technological advancements in the aviation industry (Chew, 1987). This heavy reliance on transportation has now created an industry that faces a somewhat uncertain long-term future.

2.3 Sustainable Tourism

The need for sustainable tourism has grown from the recognition that the tourism industry must adopt sustainable principles to ensure the industries long-term success. Sustainable tourism attempts to ensure that a destination's resource base - which encompasses natural, physical, built and cultural features - are protected and enhanced for the ability of future tourism development (Lane, 1994). There has been considerable concern and doubt raised by tourism academics to the extent sustainable development principles have been incorporated into the sustainable tourism movement (Hunter and Green, 1995; Hunter, 1997; Høyer, 2000).

Originally the sustainable tourism movement was criticised for being too tourism-centric. The desire to expand the industry was continually pursued at
the cost of the environment. There will always be a desire to enhance and promote tourism as an industry, so the answer, according to Lui (2003) is not to “limit growth but to manage growth in a way that is appropriate to the tourists, the destination environment and the host population” (Liu, 2003: 472). It would appear that the international tourism industry is starting to grasp the importance of incorporating sustainable principles. The second International Conference on Climate Change and Tourism held in 2007 has been considered a ‘milestone’ event in the tourism industry. Following this conference a clear commitment was made to respond to the climate change challenge. The following quote taken from the conference exemplifies the need for the tourism industry to develop sustainable practices:

It underscored the need for the tourism sector to rapidly respond to climate change if it is to develop in a sustainable manner, which will require actions to: mitigate greenhouse gas emissions from the tourism sector, derived especially from transport and accommodation activities; adapt tourism businesses and destinations to changing climate conditions; apply existing and new technologies to improve energy efficiency (World Tourism Organization, 2008: vii).

The report recognises the impact tourism travel has on global emissions. Accordingly, the World Tourism Organization (2008) promotes the usage of mixed measures to reduce transport related impacts on the environment. In the New Zealand sense, the Tourism Strategy outlines the commitment to reduce tourism impacts on the natural environment. Securing and conserving the long-term future was the number one objective of the ‘New Zealand Tourism Strategy, 2001’. This has been expanded further in the ‘New Zealand Tourism Strategy, 2015’ with the overall vision consisting of: “in 2015, Tourism is valued as the leading contributor to a sustainable New Zealand economy”.

### 2.4 The role of Transport in Creating Sustainable Tourism

Transport is responsible for around 75% of the CO2 emissions generated by tourism, with aviation representing the bulk part of it (40%) (World Tourism Organization, 2008: 9). However, in New Zealand transport is responsible for 90% of tourism emissions (Dubois and Ceron, 2006). This increase results from
the larger aviation footprint and a heavy reliance by tourists on rental cars and campervans. Research has proven that the heavy reliance on un-sustainable modes of transport is a significant restriction that must be overcome for the tourism industry to become more sustainable (Gössling, 2000; Becken, 2001; Becken and Simmons, 2002). According to Becken and Simmons (2002) in New Zealand the environmental impact, and energy usage of tourism transport, is a major concern. The author points out such environmental effects undermine the objectives of New Zealand's tourism strategy. This is not an unknown problem in New Zealand, with the ‘New Zealand Tourism Strategy, 2015’ highlighting the need for sustainable transport:

An efficient, safe, integrated, and sustainable transport network is an essential requirement for the tourism sector. Visitors need to be able to move around the country easily using different forms of transport. An environmentally sustainable transport system is essential if we are to deliver on the promises of our 100% Pure New Zealand brand (The Ministry of Tourism, 2007: 71).

Reducing transport related emissions will play a critical role in ensuring longevity in New Zealand's tourism industry. With the understanding that visitors are becoming more eco-conscious, there is a need for the tourism industry to deliver sustainable transport solutions. In the study by Baysan (2001) the mode of transport used by a tourist was partially determined by that person(s) environmental awareness, stating that people were more susceptible to sustainable modes (public transport, biking and walking) if they were environmentally conscious (Baysan, 2001). The tourism industry is based off a clean, green image and the need for New Zealand's tourism industry to become sustainable is essential to ensure the upkeep of the successful marketing campaign, this is highlighted in both the ‘New Zealand Tourism Strategy, 2015’ and the ‘New Zealand Energy Efficiency and Conservation Strategy’.

For sustainable tourism to occur, there must be a reduction in personal modes of travel, and the enhancement of sustainable modes, including walking, biking or public transport (Høyer, 2000). This is problematic in the New Zealand sense, as the desire by many tourist to explorer remote areas, limits the ability for tourists
to rely on mass transit options. Commonly these needs can only be serviced by private, self driven vehicles. Currently, there is a significant push for cycle based investment within the New Zealand Cycle Trail project. However, the other form of transportation mentioned by Høyer (2000) public transport, is an area of underinvestment in New Zealand, particularly in relation to the tourism industry.

This section has identified a need to reduce tourism related emissions, in order to create a sustainable tourism industry. With the recognition that public transit cannot provide adequate solutions to rural areas, this literature review narrows the focus of the study to urban centres. The following section introduces urban tourism, and the reasons why tourists visit urban areas.

2.5 Urban Tourism and the Positive Economic Impacts

The term urban tourism simply denotes tourism in urban areas. Law (2002) identified that large cities are arguably the most important type of tourist destination. The tendency for shorter trip making has had a significant impact on urban tourism, as shorter ‘weekend trips’ are considered more appropriate for one stop destinations (Law, 2002). Tourism has become an important and significant economic component for most large cities of the world (Judd, 1995). Increasingly, tourism is being seen along with business services as a significant contributor to a cities prosperity and image (Pagano and Bowman, 1995; Thompson, 2004).

The obvious impact of urban tourism results from the increased expenditure emerging from a temporary population increase. Tourism has also been cited as a significant means for regeneration of central business districts and waterfront areas (Law, 1996; Law, 2002). The marketing of a tourism city has also been identified as having positive ramifications, with such international exposure attracting inward investment (Paddison, 1993). Tourism is not only a significant earner of revenue for a city, but, increasingly tourism is being cited as a significant means of job creation. With the identification of the growing importance of tourism to modern cities, and the positive impacts that can
transpire through the expansion of the visitor economy, the next question is what attracts visitors to these urban areas?

2.5.1 What Attracts Tourists to Cities

Because cities are multi-purpose destinations, they appeal to a variety of different tourists. The large population base present in cities draws tourists to visit their friends and/or relatives (Law, 1996; Law, 2002). The educated or more elderly traveller is drawn to cities to observe the native culture, cultural history, historic buildings and streetscapes commonly associated with urban areas (Law, 1996). The comprehensive array of shops and restaurants encourage people to spend time and money in urban areas (Ruetsche, 2006). Amenities that service the local population also draw tourists - museums, concert halls, theatres and stadiums all attract different niche markets of urban visitors. The following quote taken from Law (1993) highlights the ability urban areas have at drawing a diverse range of visitors:

Cities offer appeal to the different tourist markets. A more educated population is attracted to the cultural heritage and prefer it to active outdoor holidays. At the other end of the age spectrum young people are attracted to the excitement found in the city, the entertainment, the nightlife and sporting events. The large city attracts visitors because of the wide choice of attractions which enables the tourist to make their own selection. In this sense it is the ultimate post-Fordist, post-modern tourist destination (Law, 1993: 7).

Urban areas are common hosts for large sporting or hallmark tourist events (Getz, 1991; Westerbeek et al., 2002; Ruetsche, 2006). This is primarily due to the fact cities have the required infrastructure and the accommodation capacity. These sporting events are increasing in popularity (Westerbeek et al., 2002). There is an understanding that such events can place a city in the international spotlight and are a key component of many cities place marketing strategies. Sporting events can attract long-term inward investment, whilst short-term gains are generated from tourism revenue through the visiting fans and athletes.
Cities are the international hubs of employment and commerce, this results in a large proportion of urban tourist being business travellers (Pearce et al., 2004; Ruetsche, 2006). According to Law (1996) in some cities business travellers represent 40% of all accommodation receipts. Conferences and exhibitions are also increasing in popularity, with the conference market experiencing significant growth and demand in the past decade (Weber and Ladkin, 2003). Because, conferences are aimed primarily at executives, the convention industry is considered to be of high yield (Dwyer and Forsyth, 1996). With this recognition, almost all cities have invested in some form of convention centre, serving a twofold purpose of enhancing the city’s image whilst generating significant economic revenue (Oppermann, 1996). These business travellers rarely travel alone and often participate in various other leisure and recreation-orientated activities (Shaw and Williams, 1990; Law, 1996; Law, 2002).

With the recognition of the positive effects that can be accumulated through urban tourism and the varied reasons to why people visit cities, the next section seeks to investigate if there is a connection between public transport and the growth of tourism in urban areas.

### 2.6 The importance of Transport in Tourism Development

Commonly, research regarding the role of transport in tourism development has centred on the impacts transport has on linking origin markets with tourist destinations. There has been a lack of tourism literature focusing specifically on the effect transportation provisions have on a localised destinations. Law (2002) stated that the importance of good transport was often underestimated in the development of tourism services. Page (2005) highlighted problems within the historical construction of tourism and transport research, stating that the framing of these two disciplines led to a weak understanding of the connection of good transportation networks and the accompanied effects on the local tourism marketplace.

Hall (1999) provides some insight into the different requirements of tourism transport, identifying four different roles transport has in destination
development: linking the origin market with the tourist destination; providing access and mobility within a wide destination area (region or country); offering access and mobility within a tourist destination itself and finally providing travel along a recreational route (Hall, 1999:181). This study will focus on the third point by Hall (1999) offering access and mobility within a destination. Page (2005) believed that there is “a considerable scope for a renewed interest in how integral transport is in facilitating and stimulating tourism activity and development” (Page, 2005: 156).

This identified literature gap, will be narrowed down further to the role public transport has in urban destination development. By studying the effects public transport can have on urban tourism, this research can help fill the gap identified. Page (1999) believed that the lack of knowledge relating to transport’s role in destination development adversely affects the ability to inform the management, planning and development requirements of tourism based transportation.

### 2.6.1 Public Transport and Urban Tourism Development

It has been identified that tourists to urban areas are more susceptible to public transport use (Thompson and Schofield, 2007; Albalate and Bel, 2010). Tourists arrive into urban areas and require transport within and around the destination. Albalate and Bel (2010) stated that tourists to urban areas commonly do not want to use private transport in order to avoid the combination of cost, effort and hassle that arises from driving. Tourists want to be able to travel within a destination, and transport as noted by Hall (1999) offers this access and mobility.

There has been some recognition in tourism literature regarding the importance of public transport to the visitor experience of an urban environment and its perceived attractiveness. The destination image includes functional characteristics, which includes public transportation infrastructure (Echtner and Ritchie, 1991). The urban tourism product has also been identified as a range of goods and services, these services are commonly categorised as primary and secondary features. Laws (1995) noted transport as being a secondary feature of
a destination; contributing to the overall appeal. A study by Jansen-Verbeke (1986) attempted to classify different products of a city according to their ability to attract visitors to a city; public transport was deemed a necessary provision. Similarly, Vetter (1985) listed public transport as one of ten aspects which makes cities attractive for perceptive visitors; the level of provision also contributed to the overall marketability of the destination.

Kinsella and Caulfield (2011) identified an improved public transport network as being a critical element for Dublin to become an attractive tourist destination. Mistilis (1999) highlighted the importance of public infrastructure in urban tourism stating that “the forecast growth for tourism in a particular city is dependent on the maintenance of a number of items in the supply side of tourism, including public infrastructure” (Mistilis, 1999: 40). Cheuk et al., (2010) identified the provision of public transport as a requirement for tourism development, this was emphasised with the importance of minimising impacts on the environment whilst also offering the accessibility required by visitors. The diagram below (Figure 2) from Berg et al., (1995) highlights the importance of internal accessibility in regards to destination attractiveness to visitors.

Figure 2: Components of the attractive city. Source: (Berg et al., 1995)
Chapter Two: Literature Review

The diagram represents the authors understanding of the key elements in a successful tourism destination; it is evident that transport is a connecting element that enhances the other influential factors. In a study by Avgoustis and Achana (2002) was conducted to identify the strengths and weaknesses of the different tourist features of Indianapolis, USA. The authors found a correlation between transport provision and visitor satisfaction. Availability of local transportation services were rated fourth in importance, out of a potential fourteen attributes used to measure destination satisfaction. Transportation services were considered to possess an 'above average' ability to influence destination choice. Thompson and Schofield (2007) found that 75% of tourists arriving in Manchester, England, were considered to be captive public transport users (Thompson and Schofield, 2007: 141).

Public transport has also been identified as a determining factor in choosing host cities for large sporting events. According to Westerbeek et al., (2002) the transport infrastructure that any city has on offer is a core element to a winning cities bid. Large sporting events commonly deal with significant flows of people attending games or events, and with this large movement of people, public transport has a critical role to play (Westerbeek et al. 2002).

The findings from these various authors can be backed up by the emphasis applied to public transport in any travel guidebook or online publication. It rates how easy it is to get around, the cost and the efficiency of the public transport network in question. It could be presumed then, that such information would warrant some consideration from the potential visitor to the urban area. This literature review has identified the underlying need for public transport in regards to tourism development. The next section explores this need further, and investigates the potential effects public transport can have on destination development.

2.6.2 Does Accessibility help Determine Time Spent at one Destination?

Khadaroo and Seetanah (2008) link the importance of an effective and accessible transportation system to the time any given tourist would stay in one particular area. They go on to argue that if the ability of a tourist to travel within a
preferred destination is hampered by inefficiencies in the transport system, then the tourist, may seek out alternative destinations. In regards to this identification by Khadroo and Seetanah (2008) transport to and from the airport is a considered perhaps the most important element of a tourist city. This linkage plays a critical role delivering visitors from the main point of entrance (the airport) to the main area of accommodation, most commonly in the central city. Law (2002) identified this need stating that at the very least there needs to be an express coach service, or more preferably, a train connection. Law (2002) stated that “in the absence of such facilities, as with the city of Florence, it can be a deterrent for potential visitors” (Law, 2002: 71).

2.6.3 Public Transport, Accessibility and Enhanced Tourism Revenue

Public transport provides an important role in enhancing accessibility to the various tourism attractions within a city (Kaul, 1985; Khadaroo and Seetanah, 2008; Albalate and Bel, 2010). Khadroo and Seetanah (2008) noted that inadequate public transport provision in an urban environment can result in limiting the amount of attractions visited, resulting in negative implications on the potential tourism revenue of a city. This inability to derive maximum benefits with an inefficient transport network was also emphasised by Kaul (1985). Kaul recognised that transport plays an important role in the successful creation and development of new tourist attractions within a city and also regarded transport as a catalyst for many city transformations.

Within this recognition was the fact that transport and accessibility were paramount for profitable tourist attractions. Leask et al., (2000) also noted the significant connection between tourist attractions and tourism transportation, stating that “transport and tourism have a close relationship due to the need for access” (Leask et al., 2000: 212). In the past accessibility to attractions has been based primarily on access by private modes, however, as this literature has shown, by not providing public transport connections, the number of visitors that can reach an attraction are consequently reduced. Alblate and Bel (2010) noted that efficient urban transport “can help to derive maximum benefits from tourism and to spread these benefits across the city” (Albalate and Bel, 2010: 212).
Gimeno and Vita (2006) also identified that the easier it is made for tourists to travel between points of interest, the visitor gains more ability to participate in activities, which in turn will generate enhanced tourism revenue for the destination (Gimeno and Vita, 2006: 14).

### 2.6.4 Negative Effects of Car Dominated Transport Patterns

Tourism literature has also highlighted the negative impacts of car-borne tourism at destinations; Hall (1998) noted that automobile orientated infrastructure, traffic, congestion and subsequent emissions degrade the urban environment, negatively affecting the destination from a tourist’s perspective. Congestion was also cited by the English Tourist Council (2001) as decreasing the enjoyment of tourism travel, and was propositioned as a potential deterrent for tourists to visit urban areas of England. Hall (1998) believed there is a need to invest and promote public transport to ensure that the streetscapes became more pedestrian friendly. Pedestrian friendly streets, are considered to be a key component of any tourism orientated city (Orbasli, 2000).

### 2.6.5 Public Transport and Good Experiences

The level of public transportation provision and ultimately the ease of getting around a city has ramifications on the city image. The importance of good experiences is noted in tourism literature as a powerful promotional tool. Positive experiences not only lead into repeat visitations, but word of mouth referrals also informally link family, friends and other potential travellers to a destination (Reid and Reid, 1993). With public transport being identified as having the ability to influence destination choice and destination satisfaction, negative experiences arising from public transport will have harmful impacts on the city’s image. Albalate and Bel (2010) stated that cities with inefficient or inconvenient public transport service can have adverse effects on the city’s reputation. Gimeno and Vita (2006) extend on this point of view:
Destinations that pay particular attention to enhancing the quality of their public transport systems are more likely to generate positive consumer perceptions which feed into positive word of mouth referrals (Gimeno and Vita, 2006: 14).

The importance of positive referrals was also mentioned by Gemino and Vita (2006) as becoming increasingly important as new cities not previously considered tourist destinations start competing with destinations already established. Therefore, if a city is to remain tourist orientated it is crucial to provide a transportation network that is visitor friendly, and in such a way that it makes movements between main tourism destinations easy and painless.

2.6.6 Transport as a Tourism Attraction

It has been acknowledged that transport serves a dual role in tourism: providing access to and around destinations, and as a tourist activity in its own right (Halsall, 1982; Hall, 1999; Law, 2002; Robbins, 2003; Lumsdon and Page, 2004; Rhoden, 2006). Law (2002) identified this, by stating that in some cities “the use of public transport can be part of the enjoyment of the place as well as a means of getting from A to B” (Law, 2002: 174). This is commonly referred to as leisure travel; the following abstract taken from Guiver et al., (2007) identifies the key attributes of leisure based travel:

- Travel involves a high levels of discretion, not only whether to travel, but choice of destination, mode and time of travel
- The journey frequently entails ‘intrinsic’ value, the travel generates benefits itself as well as the ‘instrumental’ value of reaching a destination
- The traveller is less likely to be familiar with the destination area and the transport infrastructure available (Guiver et al., 2007: 276)

Cities have used attractive forms of public transport as a way to showcase natural attributes. In harbour cities or cities situated along rivers, ferries are readily used by visitors as a means of transport, whilst also providing aesthetics, a key component of leisure based travel. This is alluded to by Law (2002) noting that “no trip to Sydney would be complete without a trip around the harbour from which the Opera House, the bridge and the skyline can be viewed” (Law,
Ruso and Van Der Borg (2002) also identified the ability for attractive public transport network to draw tourists to a given city.

Rhoden (2006) suggests that transport can act as a positive element in the tourism experience, with transport having the potential to enhance the visitor experience. The author continues on to explain that positive tourism experiences created by transportation are created predominantly through visual stimulation. Lumsdon (2006) mirrors this by stating “the ‘sightseer’ uses the bus to gain satisfaction mainly from sightseeing” (Lumsdon, 2006: 754). Heritage forms of transport have also been identified by Pearce (2001) and the English Tourism Council (2001) as having tourism appeal. Heritage forms of tourist based transportation are evident in many tourism minded cities in the world, these heritage modes predominantly consist of trams or street cars.

Tourism was described by Orbasli (2000) to have the potential to be used as a catalyst for light rail investment, noting not only the attractiveness but also the viability as a means of transportation for visitors and residents alike. Law (2002) believes that aspiring, tourism minded cities, should invest in such transportation modes, building on the acknowledgment that for leisure trips the experience is as important as the journey itself. This identification within literature could play an important role in determining the feasibility of tourism based public transport investment and will be further investigated through the case study chapter.

**2.6.7 Tourism Cross-subsidy**

Tourists subsidise local users of a transport network by providing more off peak movements on local commuter services, this is referred to as the foreign cross-subsidy (Albalate and Bel, 2010). This enhanced off peak revenue according to Albalate and Bel (2010) “allows city planners to reduce the average charges to local users, or alternatively reduce budget subsidies to the transportation system”(Albalate and Bel, 2010: 432). This extra stream of revenue has been noted as a valuable tool in making public transport more economically viable and is something that should not be overlooked, with funding of public transport being regarded as the single largest problem today (Pucher and Kurth, 1995).
Almost all public transport networks have obvious commuter peaks with less usage of the networks outside of the commuting hours. With this recognition Ablabte and Bel (2010) believed that it would be in the cities best interest to encourage as many visitor movements as possible through public transport. This ability to gather significant revenue out of tourists and visitors to the city warrants the need for services to be more ‘tourism’ friendly, to ensure a greater uptake of the services by incoming visitors to New Zealand cities.

This section of the literature review has highlighted the positive impacts public transport can have on tourism revenue. The reviewed literature has highlighted the need for adequate public transport in Auckland to ensure it can attract visitors to the region, keep them for extended periods of time and to obtain maximum tourism revenue. The following section builds upon this knowledge and analyses how planners can better incorporate the needs of the visitor economy into public transport networks. The literature analysed will also help to provide information for the outcomes of Objective Three.

### 2.7 Planning for a Visitor Friendly Public Transport Network

According to the tourism literature examined it becomes evident that visitor needs are commonly misunderstood or not adequately provided for. Law (1993) identified the lack of cohesion between the tourism industry and public transport planners, commonly leading to public transport networks not ideally suited for visitors. Law’s primary concerns related to the lack of frequencies and tourism specific route coverage. The problems associated with route coverage stem from the different needs that tourists have compared to the usual resident of the city, Thompson (2004) expanded on this problem further: “the areas of the city to which visitors typically require access may not coincide with those which are best served by a public transport system designed for local users” (Thompson, 2004: 2).

City public transport networks are primarily designed to meet the needs of residents. This results in the most common routes connecting the suburbs into the central city or other prominent areas of employment. The lack of coverage
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identified by Thompson (2004) and Law (1993) is created through the differences in travel patterns between visitors and residents. Lew and McKercher (2006) identified these differences; the major areas of visitor trip generation were concentrated around accommodation, attractions and areas of tourism appeal.

In a study by Lumsdon (2006) the author identified two design approaches that could incorporate the visitor needs into public transport networks. The first design approach was structured around the creation of tourism specific routes or services; this was identified as the bespoke approach. This required the implementation of a supplementary network aimed squarely at the tourism industry. There was some concern cited about the legitimacy of such services, with the feasibility of tourism specific routes questioned. In response to such concerns, the secondary solution offered followed a more conventional approach. This solution was an integrated approach, amalgamating some of the key needs of tourism based transport into the commuter network. Simply put by Lumsdon (2006) “designed to meet the needs of all users but may be modified to accommodate the desires of tourists” (Lumsdon, 2006: 754).

The need to create stronger connections between tourism operators and transport providers was mentioned in literature (English Tourism Council, 2001; Lumsdon, 2006; Khadaroo and Seetanah, 2008). Lumsdon (2006) identified a lack of cohesion between transport operators and tourism providers, as the author believed that the tourism industry was perceived to only plan for the private car (Lumsdon, 2006:759). To rectify this problem Lumsdon (2006) promoted a stronger connection between transport operators and tourism attractions. This was also identified by Khadaroo and Seetanah (2008) who believed governments needed to integrate transportation polices into tourism planning, especially for those countries with poor infrastructure.

To achieve this desired integration, it requires according to Khadaroo and Seetanah (2008) input from tourism stakeholders to be effective: “broad participation of different interest groups, particularly from the tourism sector and consumers is essential for the effectiveness of such planning”(Khadaroo and Seetanah, 2008: 838). The English Tourism Council (2001) recommended that
the transport needs for tourism should be taken into account, to ensure the development of transport plans better incorporate tourism requirements. Better integration between tourism boards and transport planners was also encouraged, particularly between public transport providers and regional tourism boards.

The planning requirements of a tourism public transport network are highlighted in the diagram below (Figure 3) from Lumsdon (2006). This diagram provides a summary of the key areas and requirements of successful tourism, public transport planning:

![Diagram of Planningrequirements of a Public Transport Network](image.png)

**Figure 3: Planning requirements of a Public Transport Network. Source: (Lumsdon, 2006)**

This diagram (Figure 3) takes into account all the desired requirements of visitor movements: the experience, integration between attractions and transport providers, the importance of marketing, information provision, service delivery (driver, safety, cleanliness etc) and the need for ongoing monitoring and
development. The need for monitoring and development was also a key point raised by Lew and McKercher (2006). The authors believed that a better understanding of the travel patterns of tourists would help transportation providers meet the requirements of the tourism industry. This would according to Lew and McKercher (2006) allow for “more efficient planning of transport services to meet the needs of tourists and aid in marketing and attracting people to destinations” (Lew and McKercher, 2006: 408).

It is widely recognised that tourism needs are not sufficiently incorporated into city public transport networks. The need for an integrated approach between the tourism industry and transport planners is considered a critical step in providing enhanced accessibility for visitors. According to Albalate and Bel (2010) cities need to adapt their public transport networks to accommodate the new pressures being fuelled by the expansion of tourism transport in city environments. With the need to reduce transportation emissions resulting from tourism movements, the needs of the visitors must be incorporated to encourage usage of sustainable transport modes. According to Thompson (2004) “where visitors are to be encouraged to use public transport rather than private, the available public transport must supply to cater for the visitor needs” (Thompson, 2004: 2).

2.7.1 Visitor Information Requirements

The enhanced need for information provision to encourage end promote visitor usage on public networks was an area extensively covered in literature (Jansen-Verbeke, 1986; Blackledge, 1992; Balcombe and Vance, 1998; English Tourism Council, 2001; Russo and Van Der Borg, 2002; Thompson et al., 2002; Thompson, 2004; Page, 2005; Lumsdon, 2006; Lumsdon et al., 2006; Kinsella and Caulfield, 2011). In summary, the literature has suggested that visitors to cities require additional information to encourage the use of public transport. According to Balcombe and Vance (1998) the level of information available is a determining factor in the viability of public transport usage. The internal accessibility of a destination according to Ruso and Van Der Berg (2002) “depends on the quality
of urban transport, but also on the structure and location of terminals, on the ticketing and information services” (Russo and Van Der Borg, 2002: 634).

The information requirements of a visitor to a city is different to that of the regular commuter, a visitor to a city is likely to be a first time user, with little to no prior knowledge on the local network and systems in place. Thompson (2004) identified this problem stating that tourists require different information sources to overcome the initial barrier of usage, the author identified information sources that were believed to be desirable to incoming tourists: information availability before arriving at the destination, multilingual information, and information on public transport integrated with various attractions (Thompson, 2004: 2). Thompson (2004) also believed that there was a need to integrate information on public transport with tourism based information leaflets; as such sources were more commonly used by visitors.

Jansen-Verbeke (1986) proclaimed that the importance of public transport information was often undervalued and inadequately provided for. The author believed that without enhanced information provision the visitors experience may be adversely affected. Lumsdon (2006) alluded to the need for accessible information in order to gain visitor confidence: “without having easily understandable information, it was impossible to inspire sufficient customer confidence to stimulate use” (Lumsdon, 2006: 757). Guiver et al., (2007) and Lumsdon (2006) also concluded that on top of the need for base information provisions, the driver also played an integral role in administering helpful advice and giving directions.

2.7.2 The Importance of Online Information

The introduction of the Internet in the 1990s has being instrumental in transforming tourism marketing and information supply (Porter, 2001; Buhalís and Law, 2008). Thompson (2004) noted the newfound importance of the internet as a crucial means of acquiring public transport information by the visitor. Hine and Scott (2000) identified that tourists require information prior to their arrival, as this enables the visitor to pre-plan their trip. Buhalís and Law (2008) thought that Information Computing Technologies can assist in
improving the service quality of a visitor destination and argued that such provision may contribute to higher visitor satisfaction. With the increasing accessibility of the internet from laptops, and smart devices, it would be suggested that online public transport information may play an increasingly important role in providing the required information for visitors.

2.7.3 Multilingual Information Requirements

Commonly, public transport information is only offered in the native dialect, however, tourism academics have identified this as a limiting factor to public transport usage (Berg et al., 1995; Thompson, 2004; Kurihara and Okamoto, 2010). Berg et al. (1995) identified the lack of multilingual information as a main deterrent for non-English speaking visitors to use public transport. The same problem was also identified by Lew and McKercher (2006) with the authors citing language barriers as a key restriction to self directed travel. In the study by Kurihara and Okamoto (2010) a key problem in regards to the public transport network in Japan, was the lack of English ticketing at train stations. Kurihara and Okamoto believed that this restricting the ability for foreigners to easily use the rail network. Law (2002) also identified the need to provide alternative language publications. The author believed that failure to do so will limit the ability for public transport to be viable for a wider share of incoming visitors.

As it becomes clear, the information requirements of the visitor in contrast to the local resident are significantly different. The required information is critical in ensuring the ease of usage by the visitor unfamiliar with city networks. Because of the importance emphasised by academics, visitor information provision will be a key focus in relation to Objective Three of this research, the role of information provision will be investigated further in the case study chapter.
2.7.4 Simplicity - Making it Easy for the Visitor

Ease of use is determined by the degree to which travellers spend affective and cognitive effort on a journey by public transport. Low affective effort means feeling comfortable, experiencing pleasure and convenience accompanied by feeling secure and perceiving less stress. Low cognitive effort is defined by the system being easy to learn by providing high quality information (Dziekan, 2008: 12).

The above quote defines simplicity; from this definition it becomes clear that it will have implications on tourism travel. Simplicity is cited as one of the most important components of visitor transportation. There is an underlying assumption that public transport is not simple and easy to use. Dickinson and Robbins (2007) stated that visitors were put off using public transport from this perceived difficulty; similarly, Thompson and Schofield (2004) cited the ease of using public transport as being of particular importance and also having the ability to influence destination satisfaction.

Numerous factors can influence the simplicity of use; consequently, there are many means that can improve visitor ease of use. Some commentators have suggested that integrated ticketing is a must (English Tourism Council 2001), other academics have stated that simple schematic diagrams encourage visitor usage (Morrison, 1996; Avelar and Hurni, 2006), whilst others believe it is the route coverage and connections offered to and from important tourist attractions that result in reduced effort.

The simplicity of the network is a significant factor that contributes to tourist preferences towards rail based public transit over buses. Thompson and Schofield (2007) identified this preference and concluded that any investment structured towards tourism should be administered on the rail network. The reasoning for this modal preference was further discussed by Lew and McKercher (2006). The authors argued that bus networks were too complex to understand, and provided a much higher degree of uncertainty without prior knowledge.
2.8 Tourism Literature Summary

This section of the literature review attempted to identify the need for public transport in tourism development. The start of the section analysed the need for sustainable transport solutions in order to create a sustainable tourism industry. The realisation that public transport was only applicable to urban areas further reduced the scope to the potential role public transport has in urban destination development. The First Objective of this research seeks to identify the need for public transport in urban destination development, although no New Zealand specific literature was unearthed, international literature highlighted the importance of, and the connection between, urban tourism and public transport provision.

Literature identified that visitors to urban centres were often reliant upon public transport. The accessibility provided through public transport was also considered a key factor in making urban areas attractive to visitors. Efficient and visitor friendly public transport networks can also create longer stays and enhance the visitor revenue. In regards to the Objective Two of this research, there seemed to be a lack of current literature that linked specific aspects of urban tourism with an enhanced need for public transport, this requirement was only briefly mentioned in relation to hosting large sporting events.

There was a distinct lack of integration between tourism and transportation planning, this created networks not suited to the different needs of the tourism industry. The literature also identified key differences between visitors and residents; information provision and the ease of use were two key components identified. Such acknowledgments have warranted further investigation within the case study chapter and will help mould key informant interviews in relation to Objective Three.

A significant literature gap was identified regarding the role of public transport in urban tourism development. This lack of literature is exemplified in the New Zealand context, with the connection between public transport and urban tourism seemingly not yet identified. This research therefore, aims to build upon
the existing international literature and help determine the applicability in the localised context.

Hunter (1995; 1997) noted that for sustainable tourism to be effectively developed, the industry must understand and incorporate this directive within the wider, global, sustainable development movement. This identification by Hunter is an important point, and an area from which this research builds upon. By understanding the positive effects that public transport provision can have on tourism in urban areas, these identified effects could enhance the need for sustainable transport solutions in the wider sense. This is a critical underpinning of the Fourth and Fifth Objectives within this research. The following section identifies the need for sustainable, urban transport solutions. This is important to understand as the main motivation for public transport investment will undoubtedly result from domestic requirements.

2.9 The Drive for Sustainable Development

The need to achieve sustainable development is one of the most important outcomes of modern planning (Berke and Conroy, 2000; Davoudi and Layard, 2001; Holden, 2008). This is emphasised in the New Zealand context through the Resource Management Act (1991). This new planning agenda has been formulated through the growing recognition of diminishing finite resources and the unsustainable impacts human induced growth is having on the global environment. The first accepted definition of sustainable development was formulated by the United Nations in the 1987 ‘Bruntland Report’ “creating development that meets the needs of the present without jeopardising the ability of future generations to meet their own needs” (Brundtland, 1987: 43).

The level of documentation published on the topic and the frequency of global summits dedicated to this matter have heightened the awareness of this global movement. Such action has been instrumental in refining the definition, actions and principles that are required to create the desired end goal, to address the indifferences between economic, social and environmental development (Berke and Conroy, 2000; Davoudi and Layard, 2001; Banister, 2005). With the
identification that all three of these outcomes must be balanced, planners aim to achieve equilibrium between these three goals. In practice, this desired goal is seemingly rarely reached. It has been identified in literature, that predominantly the motivation for economic growth has tended to override the conservation of environment and social outcomes (Berke and Conroy, 2000; Banister, 2005).

Climate change is one of the main drivers behind the global movement towards sustainable development. Although there are still debates on the viability of the matter, there is an overwhelming body of scientific evidence linking the increased emissions of green house gasses with global warming. This evidence has recorded a global increase of surface temperature by about 0.5°C since 1975 (Jones et al., 1999). The increase has taken the global temperature to the highest since the year 1000AD (Mann et al., 1999). Although the earth has been hotter in previous ‘natural cycles’ it is the speed of the latest increase that has scientists alarmed.

The concentration of the global CO2 in the atmosphere has increased markedly since the industrial revolution. In 2001, it was estimated that transportation derived CO2 emissions were responsible for 29% of the worlds CO2 footprint (Banister, 2005). Transport emissions both internationally and domestically are responsible for a significant proportion of pollutants causing global warming. As it is a global issue; the responsibility rests on all nations to do their part, New Zealand included.

In a recently released United Nations report, cities were found to be responsible for 70% of global greenhouse gas emissions (United Nations, 2011). The report also concluded that urban areas encompass the greatest potential to reduce emissions through efficiency improvements. The report identified power generation and transport as two main target areas. In New Zealand, with the ability to predominantly source renewable electricity, transport is responsible for a larger proportion of energy consumption and pollution. In Auckland transport is believed to be responsible for 41% of overall emissions (Auckland Regional Council, 2006). This thesis focuses on sustainable transport solutions for urban areas, with the global trend of continued urbanisation; reducing urban transport emissions will play a large role in creating sustainable development.
2.10 Sustainable Transport

Although sustainable development has become increasingly recognised, most countries are still far from achieving the goal of sustainable transport (Banister, 2005; Banister et al., 2007). The United States of America’s transport network is the most unsustainable in the world; with most Americans heavily reliant on cars for transport (Benfield, 1995). This problem is not in isolation; with the American born, automobile based planning ideology quickly taking precedence in many other countries (Replogie, 1991). Auckland’s 1955 Master Plan was designed by American traffic engineers. This Plan laid the platform for Auckland to grow around the car, the enviable result according to Mees (2009) is a city notably car dominated. The following section of the literature review investigates the drivers behind current transportation problems and the associated need for sustainable solutions.

With the acknowledgement that transportation of goods and people are responsible for a large proportion of atmospheric green house gasses, pressure is mounting globally to reduce transport emissions. This desired reduction is complicated by the fact that transport is almost entirely dependent on non-renewable resources. According to the International Energy Agency in 2002, the world’s transportation energy needs were 97% reliant on oil (Kenneth and Van Dender, 2008). Accordingly in OECD countries transportation is solely responsible for 30% of total overall energy consumption (OECD, 1995). In New Zealand, this is even higher, with transport responsible for over 40% of total energy use (New Zealand Government online, 2011).

2.10.1 Peak Oil

The ever increasing demand for oil (a finite resource) has brought about the notion of peak oil. Peak oil is a reference point to the maximum supply of global oil; after this point has been reached, production will decline. There has been considerable research into when such an event may occur. There is still some debate surrounding when this peak will happen and the phenomenon has
become an area of continual dispute (Campbell and Laherrere, 1998; Campbell, 2003; Hursh et al., 2005; Klunster, 2005).

Some commentators have argued that peak oil has already occurred; whilst in contrast other forecasts have stated that peak oil will happen within the next 30 years (Campbell, 2003; Davis, 2003; Klunster, 2005; Bardi, 2009). With the increasing demand fuelled by growth in developing countries; even conservative peak oil estimates will have diverse consequences. The most obvious effect would be an increase in petroleum price; as the demand increases and the supply decreases the relationship between supply and demand will dictate a higher purchase price for the resource.

Opponents to peak oil state that technology advancements will limit the price rise; with technological advancements ensuring the ability to extract oil and non-conventional oils that historically were unobtainable (Huber and Mills, 2004). What makes extracting oil a viable economic activity is dictated by the calculation of time and money required to turn the oil into a usable resource. As the cheap resources become depleted the extraction costs become higher when pursuing lower quality deposits (Bardi, 2009). The higher cost of processing the oil is then passed onto the consumer. The following diagram taken from Bardi (2009) illustrates this thinking in graphical form linking the price increase to the reduction in oil discoveries.

![Figure 4: Oil discoveries over time versus the price of oil per barrel ($US-D)](image)

Source: (Bardi, 2009)
Chapter Two: Literature Review

The increasing cost of fuel will have serious implications on the current transportation patterns. As most large cities around the world are automobile dominated; and indeed modern society is focused around personal mobility; the inability to future proof infrastructure becomes a serious concern. Low (2003) states that “the consequences of peak oil would not be so dire if there was a strong and far sighted effort to restructure transportation networks away from fossil fuel dependence” (Low, 2003: 14).

2.10.2 Car Based Planning, Urban Form and Energy Consumption

Transport planning undermines many key challenges facing urban planners; transport policy directly determines land use patterns and urban growth (Banister, 2005; Balaker and Staley, 2006; Banister, 2008). Automobile based transport planning has been the driving force behind the sprawling form of many western cities. This dispersed growth, has made populations more reliant on personal transport; such reliance has coined the phrase automobile dependency. An automobile dependent city according to Newman and Kenworthy (1999) is the designing, operating and building of infrastructure around the need of the motorcar (Newman and Kenworthy, 1999).

There has been considerable research conducted on the linkage between urban form and overall energy usage (Newman and Kenworthy, 1989; Banister, 1992; Naess, 1993; Newman and Kenworthy, 1999; Banister, 2005). The general consensus is that there is a correlation between density and energy consumption. This was first identified by Newman and Kenworthy (1989) who argued that density was a critical factor in determining energy consumption of urban areas. Increased fuel consumption was deemed a significant contributing factor to this increase in energy, particularly of cities with a density of lower than 29 people per hectare. The findings of this 1989 study were also reinforced by Hayashi (1996). The author argued that there was a direct correlation between suburban development and increased energy consumption; again this was primarily created through increased energy required for enhanced personal transportation.
Brehney (1995) disagreed with Newman and Kenworthy's theory, stating that changing transport patterns through urban intensification would be unlikely to happen under the current desire and requirement for high mobility. The author also identified that the early works did not correct for socio-economic differences that existed between study cities. This negative perception was also evident within the research by Bae and Richardson (1994) stating that increasing urban densities will not reduce overall emissions, as the increase in short distances trips will outweigh the benefits associated from a deduction in long distance travel. These presumptions are based on the fact that regardless of urban density, inhabitants will still continue to use their private automobile for their transport needs. If this is the case, then indeed, compaction of a city may not result in significant energy savings.

In contrast to the presumptions held against intensification not reducing automobile usage was the Hilbers et al. (1999) study. The travel mode shares were investigated for new Dutch residential areas in outlying suburbs and new residential developments contained within the original urban fabric. This study corrected for socio-economic variables, minimising the perceived bias of previous studies. The study proved that there is a connection between the placement of housing and the ability of the residents to actively use other modes of transport. Housing developments within the existing urban form had on average around one-third less car usage then the peripheral residential counterparts. This highlights Banister’s (2005; 2008) opinion that transport planners can have a positive influence on travel patterns, helping reach the overall aim of creating sustainable cities through the design and implementation of sustainably based transportation policies.

The current suburbanisation prevalent in modern society has resulted in an astronomical rise of cars in the urban environment which in turn has lead to the increased uptake of fossil fuels to drive this need (Glaeser and Kahn, 2004). The basis of current transport planning around the needs of the automobile has been described by many commentators as being unsustainable (Evans et al., 2001; Murray, 2001; Banister, 2005; Banister, 2008; Roosa, 2010). It is realised that automobile based planning is no longer sustainable on economic, social or
environmental terms. The mentioning of social and economic terms is of importance as automobile dependency creates significant externalities on society and city environments.

2.11 Negative Automobile Externalities

The following section discusses the implications that the rising usage of the car has had on urban environments, including congestion, social degradation, health effects, severance and air pollution. The problem does not necessarily rely with the automobile itself; instead it is the increasingly heavy reliance upon the car that has produced the severe adverse affects. The impacts on the wider environment of cars are described in the following sections.

Safety concerns

In all the literature surrounding the automobile the coherent link between increased automobile usage and pedestrian injury is an area that remains uncontested. According to Newman and Kenworthy (1989) automobile accidents are the main cause of death for young people in the United States of America and Australia. Comparable findings are highlighted by Hyder and Peden (2003) identified that worldwide, road traffic injuries accounted for the ninth highest leading cause of death, with estimations predicting that by the year 2020, motor vehicle accidents could be the world’s third leading cause of death.

Congestion

Automobile congestion is a major problem in all modern societies, with New Zealand being no different. Worldwide traffic congestion is responsible for the wasting of millions of hours and litres of fuel on a daily basis (Dornbush and Joshi, 2007). In America, Lomax and Schrank (2005) estimated that every year, US $68 billion were lost in traffic related congestion. In a more specific New Zealand context the Ministry for the Environment estimated, in 2007, that traffic congestion in Auckland alone costs the country one billion dollars annually (Ministry for the Environment online, 2007).
Traffic congestion is created when the roading network can no longer cater for the capacity of vehicles entering the roadway; this phenomenon is usually centred on peak commute hours. The historical answer to traffic congestion was determined by the philosophy of supply and demand - simply build more roads. However, what is important to note is the carrying capacity of private cars. Congestion is not created by a single car; congestion is created by the amalgamation of cars; compounded further by the average weekday occupancy of 1.15 per car (Sullivan and O’Fallon, 2003). The following photo (Figure 5) is a visual representation of the space cars take up comparatively to one bus or the equivalent number of bikes:

![Figure 5: Spatial representation of cars, bus and bikes. Source: urbanplacesandspaces.com.](image)

Aside from the economic impacts congestion creates; significant impacts are made on the quality of life. The emissions are compounded when traffic is stationary. Furthermore, occupants of cars stranded in traffic are exposed to higher stress levels and the associated loss of time that otherwise could have been spent on a more productive activity (Downs, 1992; Downs, 2004).

**Loss of Urban Amenity**

Transportation infrastructure takes up large footprints of space in modern cities, the roads, parking lots and motorways create an expansive network. Today, in
many automobile orientated cities the once walkable downtown streets are now clogged with cars creating noise, air pollution and making the streetscape more dangerous for other users. This was also proven in Section (2.6.4) to have detrimental impacts on the tourism appeal of any given city. Transport infrastructure can create severance between areas; this has been labelled the ‘barrier effect’. Severance refers to the “separation or partitions between people, people and places or between two places” (Handy, 2003: 4). In a study by Appleyard (1981) the effects of increasing amounts of traffic were assessed. The results showed a correlation between high levels of traffic and the erosion of local amenity and social interaction.

**Social Degradation**

Automobile dominant suburbs are considered by many New Urbanist theorists as being a foremost factor in the reduction of social interaction in modern urban environments. Such thinking was fuelled by Jane Jacobs who targeted urban sprawl and segregated land use. In Jacobs (1961) critique of such planning philosophy, she stated that decreased pedestrian activity and car dominated environments made areas ‘less lively’ and reduced the opportunity of community interaction. Duany et al., (2000) mirrored this thinking stating that walkable streets and mixed-use areas were the fabric for social interaction and creating social ties to any given place.

The demographics of car ownership are also important when considering the social impacts. Automobile ownership directly correlates with income. For example in the UK the lowest 20% income group account for over 60% of the households without a car (Department of the Environment, 1998). The elderly, the young and the disabled are all severely disadvantaged in car dominated societies (Martin, 2009). The ageing of the population is one of the world’s modern challenges, with this being no different in New Zealand (Mercado et al., 2007). The ageing population will enhance the problems already identified by Martin (2009) with a higher proportion of the population unable to drive. In the 2008 NZTS the implications increased oil prices would have on New Zealand motorists were mentioned; stating that if oil shortages or high costs were
encountered it would have “major implications for the lives of New Zealander’s, particularly of low income” (Ministry of Transport, 2007: 8).

**Pollution**

Automobiles are a key producer of small particulate matter in urban environments. Traffic is responsible for the increase in background levels of particulate matter in cities (Gärling, 2007). The size of the pollution is what creates the associated health issues. Studies have linked vehicular emissions to numerous illnesses including to asthma, cancer and lead poisoning (Banister, 2005). A study conducted by the Ministry for the Environment in 2007 estimated that in New Zealand alone, 399 people die prematurely each year from exposure to vehicular emissions (Fisher et al., 2007). According to Bansiter (2005) the particulate matter is much more harmful for children and the elderly. Air pollution has been cited by some people as a deterrent for urban living and as such drives more people out into the suburbs.

To summarise the following table illustrates common problems associated with the car dependant societies:

**Table 1: Summary of all negative effects resulting from car dependency**

<table>
<thead>
<tr>
<th>Environmental</th>
<th>Economic</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil dependant, (infinite resource)</td>
<td>External costs from accidents and pollution</td>
<td>Loss of street life</td>
</tr>
<tr>
<td>Smog and pollutants (health and amenity)</td>
<td>Congestion costs</td>
<td>Loss of community interaction</td>
</tr>
<tr>
<td>Toxic emissions (lead, benzene etc) from gasoline emissions and wear and tear (brake pads)</td>
<td>High infrastructure costs associated with low density development</td>
<td>Public safety concerns</td>
</tr>
<tr>
<td>Noise pollution</td>
<td>Loss of productive rural land</td>
<td>Isolation in remote areas</td>
</tr>
<tr>
<td>Greenhouse gas emissions partly responsible for global warming</td>
<td>Urban space taken up and isolated by highways and roads</td>
<td>Access problems: the poor, disabled, elderly etc.</td>
</tr>
</tbody>
</table>
2.12 Can Public Transport Reduce these Problems?

With the identification of the negative externalities car dependant urban development has, this section of the literature review seeks to identify the potential for public transport to create a sustainable transport system. This review summarises the positive benefits of public transport. With transport recognised as a pivotal tool in creating sustainable development, sustainable transport solutions have a real opportunity, particularly in urban areas, to provide positive solutions to counteract the unsustainable automobile orientated cites of today.

Creating compact, higher density urban developments has been proven to reduce automobile usage and travelling distances. The desired increase in urban densities can only be made possible with the increased accessibility generated by public transport. Public transport forms the basis of growth in transit orientated development; creating nodes along corridors and transport hubs (Dittmar and Ohland, 2004; Curtis, 2011). Such development keeps trip length below the threshold of walking and cycling, having the secondary benefit of promoting active transport. These sustainable solutions are not intent on prohibiting car use, instead, transit orientated policies attempt to create compact cities with high quality environments that significantly reduced the need for cars, whilst making other modes more plausible alternatives (Banister, 2008).

Traffic congestion is a problem that technology cannot solve; it requires change of transport patterns. According to Abusah and de Bruyn, (2007) with regards to Auckland, a transport strategy based entirely on road expansions was not considered “a viable alternative due to the land restrictions and sustainability issues” (Abusah and de Bruyn, 2007: 8). Cars are inefficient users of space. Ride share programmes attempt to reduce this inefficiency by encouraging higher occupancy rates. However, such strategies have been criticised for their ineffectiveness, with the majority of car sharing consisting of spouses or house mates.

Another method increasingly being used to reduce traffic congestion is through travel demand management (TDM). TDM seeks to make more efficient usage of
roading space through management solutions. Most TDM methods effectively add costs onto commuters who continue to drive into areas of high congestion, or during peak periods. These methods are usually promoted to encourage shifts away from private transport, effectively pricing some people out of their cars. However, it is generally accepted that for such strategies to be successful, viable alternatives must first be offered (Thorpe et al., 2000; Gärling and Schuitema, 2007). The most common alternative is public transport. So even though congestion levies have been successful in some cities, including Singapore and London, the high level of public transport provision means the residents of these cities are given an alternative that does not adversely affect their quality of life.

If more people use public transport, road fatalities can be reduced. More car usage relates to greater exposure to the dangers of the road, which corresponds to a higher probability of motor vehicle crashes, resulting in either passenger or pedestrian injuries (Lourens et al., 1999). It has been proven that car drivers and passengers have much higher mortality rates than public transport users (Mohan and Tiwari, 1999). Driver error is the primary cause of pedestrian deaths. The most obvious method would be through prevention, by minimising car usage, the exposure is reduced, but again such movements are considered impractical in many metropolitan areas due to the lack of current alternatives (Frumkin, 2002).

Studies have proven that automobiles consume more fuel and emit more pollutants per passenger-km compared to public transport (Kennedy, 2002; Soylu, 2007). In a 2002 study by Kennedy the sustainability of public versus private transport was investigated. The study found that private transportation in Toronto produces approximately 10 times more greenhouse gasses and three times the energy usage required than public transportation in terms of person-km’s (Kennedy, 2002: 489). Public transport modes are much more sustainable as they require less non-renewable resources whilst also decreasing air pollution.

Resultantly, public transport can reduce harmful pollutants, not only minimising global warming impacts but having positive benefits on the health of neighbouring communities. Public transport users have also been identified as gaining valuable exercise in their daily commutes compared to their car driving
counterparts (Huang et al., 2003; Besser and Dannenberg, 2005; Wener, 2007). This brings with it considerable health and economic benefits. In Australia physical inactivity is estimated to cost the federal government 13 billion a year; accordingly it is estimated that by increasing patronage on public transport networks, 1.5 billion dollars could be saved annually (Begg et al., 2007). Translating this estimation into the New Zealand context, significant savings and improvements to health gives further weighting to the social and economic sustainability of public transportation.

The increasing costs of modern day motoring has the greatest negative effect on low income residents who are still reliant on their car for transport (LeRoy and Sonstelie, 1983; Root, 1998; Kenyon et al., 2002). With rising fuel costs and the prediction that these costs will increase drastically in the future, alternatives must be provided for the sectors of society that will no longer be able to afford private transportation. The ageing population will also mean that there is a greater proportion of the populous that will become dependent on public transport.

2.12.1 Summary of Public Transport Effects

It becomes clear that public transport will play an important role in creating sustainable cities and in return sustainable development. Public transport has been proven to reduce the negative externalities associated with car dependant societies. Public transport has been linked to environmental, social, economic and health benefits. The rising costs of motoring and the ageing population also heighten the importance of public transport. Although there is a mountain of evidence that suggests increasing investment should be made into public transport, current transportation policy still favours private modes. The lack of funding for public transport is analysed in the next section, this lack of funding is central to this research. This literature review has already identified that public transport has benefits not only for residents of a city but visitors as well. The financial constraints and funding arrangements will be discussed in order to provide the basis to determine the outcomes of Objectives Four and Five, that is,
can the identified benefits of the tourism industry be incorporated into the need, and funding of public transportation?

### 2.13 Problems Hindering Public Transport

Perhaps the single largest problem to the progression of public transport is the lack of financial resources required to upgrade and provide a high level of service provision. This lack of funding is a worldwide issue, and an area of continual debate by academics and practitioners who believe many funding systems are biased towards private modes of transport. In order for urban transport investment to favour more sustainable modes, commentators suggest that policy making, planning and transport budgeting must be coordinated within a more sustainable framework (Richardson, 1997; Low et al., 2003; Dimitriou and Gakenheimer, 2011).

With the recognition of the critical role transport policy has in developing sustainable development, one would imagine that transport investment would be determined by sustainable policies and funding mechanisms. However, this does not seem to be the case, with it being contested that transport policies have remained bias towards modes increasingly responsible for rising global emissions. This problem was exemplified by Low et al. (2003) stating that transport policy was “effectively quarantined from the influence of the agenda of ecological sustainability” (Low et al., 2003: 99). There is a belief that if transport funding is to better align with sustainable development outcomes, the benefits of any given project (usually referred to as second order benefits) must be given financial weighting. This according to Dimitriou and Gakenheimer (2011) would ensure that the historical car based transportation policies would not continue to dominate transport infrastructure appraisals.

#### 2.13.1 The External Costs of Private Transportation

To estimate the total cost of transport, it is necessary to look at indirect or external costs. The identification that private transport does not recover overall costs has been identified by numerous authors (Eriksen, 2000; Laird et al., 2001;
Litman, 2002; Jakob et al., 2006). External transport costs are not considered in the overall funding of transportation instead these costs are passed on to the residents of the city, state or nation.

The most common external effects of transportation are accidents, air pollution, climate change, external parking and congestion costs (Litman, 2002). One of the main areas of external costs results from transport accidents. The costs associated with accidents and the proportional allocation between public and private transport users is one way of assessing the wider economic impacts cars have on society. Accident costs according to Litman (2002) include medical treatment, ambulance costs, rehabilitation, nursing, financial aid, insurance costs, new employment costs and property damage.

According to Jakob et al. (2006) motor vehicle related accidents in Auckland comprise NZ$344 million in external costs annually. This relates to 2.6% of per person GDP of the Auckland region. Out of this total NZ$344 million, only 1.6 million or 0.45% can be related to public transport (Jakob et al., 2006: 9). This study has proven that the external costs associated with cars are considerably higher than public transport. The total external costs of the Auckland transport network in 2001 were $25.2 million for public transport and $711.1 million for private transport. What was found was that private transport was more subsidised than public transport: “public transport users literally subsidise private transport users and not the other way around as often claimed... In summary, private transport is subsidised 4.7 cents per person per kilometre more than public transport” (Jakob et al., 2006: 16).

This study highlighted the negative economic effects on society from car based travel. This economic impact is of considerable size, yet carries no weighting or financial understanding. The failure to identify these second order benefits is even more problematic in relation to the current funding mechanisms that control transport expenditure.
2.13.2 Making Public Transport Investment Economically Feasible

It is common practice to have national, or in some instances federal road lobbies or agencies responsible for the development of roads. What is far less common is a similar agency with the sole task of promoting public transport investment. In New Zealand there is no national body with the ability to push public transport investment. This lack of high level influence is also compounded by the historical preference towards road building. The main means of prioritising investment within infrastructure projects is through cost benefit analyses. This equation in simple terms, dictates the perceived benefits against the costs of the project.

This cost benefit analysis is based on quantitative data known as transport modelling. Transport modelling originated in America, and was formulated on the basis of predicting and providing for future capacity. This methodology ran on the presumption that you needed to create more road space to provide for the predicted future increase in traffic levels. However, as the cost benefit analysis does not consider any ‘after affects’ such modelling has been shown to be highly inefficient and inaccurate. In a 2006 study by Flyberg et al., the authors assessed the transportation funding methodology of 210 worldwide infrastructure projects within a 30-year timeframe. Significant forecasting errors were highlighted in the vast majority of private and public infrastructure projects. The authors highlighted the lack of continued analysis after the implementation of a project, stating that the forecasts tended to “become highly inaccurate towards the end of the period” (Flyvbjerg et al., 2006: 12).

The basis of transport modelling is centred on reduced travel time, which is considered an essential ingredient for economic prosperity. However, second order benefits of transport infrastructure are an area that is much harder to monetise under the current transport analysis (Hanley et al., 1993; Litman, 1999; Abusah and de Bruyn, 2007). The current inability to include second order benefits provides significant limitations to the supposed feasibility of public transport projects. This problem was exemplified in the following quote taken from Abusah and de Bruyn (2007)
Dynamic long-term positive externalities are not sufficiently considered in the assessment of public transport and other infrastructure projects. Wider benefits such as agglomeration, productivity gains, employment, liveability and sustainability are generally not assessed... Studies indicate that these additional benefits could be in the range of 3-80% of a traditional project assessment... As a result, traditional cost-benefit approaches can lead to an under representation of those public transport investments (Abusah and de Bruyn, 2007: 4).

Flyberg et al., (2006) identified the need to incorporate uncertainty and risk into infrastructure investment cost benefit analyses. Such uncertainty and risk is heavily associated with fluctuating external pressures that produce effects on modal choice and vehicle usage. Such externalities such as increased oil prices has been proven (oil crisis of late 70s) to have effects on car usage. Without these uncertainties included within cost benefit assumptions, the impact of increased oil prices, and other environmental indicators will continue to hold little weighting, and the movement towards sustainable transport will continue to be forged through academic literature, whilst failing to adequately influence sustainable transportation outcomes.

The short-term mindset of the benefits assessed further compounds the bias. Road projects by nature can accumulate perceived benefits of increased traffic flow with no lapse in time after the completion of construction. In contrast, public transport projects produce benefits over a time lapse, a gradual modal shift is created that builds up patronage. This is commonly referred to as the product take-off curve (Mackie and Preston, 1998). The short-term timeframe and the financial structures of the New Zealand infrastructure investment policies are further analysed within the Context chapter.

2.14 Literature Review Summary

This literature review set out to identify if a connection existed between sustainable transport and tourism development. With the recognition that public transport was only applicable for urban areas, the scope of the literature was refined to the urban environment. Tourism academics believed that the connection between transport and destination specific development was an area
under researched and commonly misunderstood. The literature review has highlighted a distinct connection between public transport and urban tourism development. Within this recognition was the underlying need, the positive impacts that can arise and in regards to Objective Three; the specific needs of visitors on public transport networks. There appeared to be a common lack of understanding between the tourism industry and public transport planners. The visitor requirements will help define the attributes researched within the case studies chapter.

The problems associated with automobile dependency were analysed against the need for sustainable development. The literature review has found an underlying need for public transport investment, in order to reduce environmental impacts and energy consumption.

The chapter concluded with an investigation into the current barriers restricting public transport investment. There was a strong understanding that public transport investment is currently undervalued. This is the primary result of the inability to include second order benefits and the exclusion of uncertainty and risk within cost benefit analyses.

The literature failed to identify the effects public transport can have on other economies present in urban areas. The framework integration, main drivers, key problems and the identified positive impacts of public transportation and tourism are explained further in (Figure 6), below.
Figure 6, above, highlights the connections between sustainable development, the tourism industry and the sustainable growth of cities in regard to public transportation provision. The following chapter reviews the research and methodological framework that was used to take the identified components of this literature review chapter and help contextualise the findings within the research area of Auckland.
This chapter describes the overall methodology, the research design and outlines the methods used to carry out the research questions. The chapter provides explanation and justification to why such methods were utilised. The framework and theoretical underpinnings behind the selection of the research methods are discussed in the following sections, along with the chosen data collection and analysis techniques. Limitations of the research strategy are also described, in order to determine factors which might influence the interpretation and applicability of the results. The research was obtained through a two stage process. The primary data was gathered through good practice international case study examples, key informant interviews and self observations conducted in Auckland, and the secondary data was gleaned from a substantial literature review and document analysis.

3.1 Research Strategy and Design

Academics throughout the geography profession have highlighted the numerous and diverse ways under which it is possible to conduct social science research. This strategy was carefully considered prior to any fieldwork commencing. This was done in alignment with academic practice, with Sarantakos (2005) stating that the purpose of a research strategy is to guide research actions, ensuring the reliability and validity of the results.

This research aims to investigate the need for more sustainable modes of transport within New Zealand’s second largest industry - tourism. The focus of the study will be narrowed further to focus on public transport’s role in administrating this outcome. To understand the challenges and needs, the research must target specific bodies of literature and informants closely associated within the relevant disciplines of transport planning and tourism. Each part of the research process is intended to influence subsequent processes, with the feedback administered through the various stages influencing decisions made in latter segments of the thesis. Although the research area has been constrained to Auckland, the results of
this study are considered applicable in the contexts of other urban areas around New Zealand.

3.2 Qualitative Approach

With the identification that social scientific research can be administered via two means - qualitative or quantitative - one must first identify which method is best suited for the specific research in question. A quantitative approach is defined as a deductive process through which numerical measurements are used to interpret and collect data (Sarantakos, 1998). In contrast, a qualitative methodological design attempts to locate people's perceptions and assumptions and connect them to the complexities of the social world around them (Miles and Huberman, 1994). Qualitative methods offer a much broader perspective in regards to this research, with the emphasis being placed on the importance of understanding people's attitudes and values (Sarantakos, 1998). For the purpose of this study, quantitative data is not considered applicable, as there is a need to understand people's attitudes and values rather than simply applying a measurement to them. In order to investigate the connection between tourism and public transport there is a need for an interpretive and evaluative style of research, with the ability to investigate people's insights, perceptions, aspirations and attitudes.

3.3 Methodological Paradigm

As research paradigms consist of the theoretical perspectives that influence structure, process and direction of social research, it is important to select the most applicable paradigm to the specifics of each individual research problem (Sarantakos, 2005). This research does not aim to quantify the travel behaviour or needs of individual visitors. Instead, the research seeks to understand the general requirements of visitor transportation within urban areas, the impacts that may occur if these requirements are not provided for, and finally the identification of any future changes that will impact tourism transportation. Considering the complexity of the issue, it was considered that the interpretive paradigm was the most applicable. The interpretive researcher identifies a particular social setting (tourism in urban areas), and tries to understand the problem from a certain
perspective (the visitor) (Neuman, 2011). In the case of this research, this interpretive analysis is critical to understand the differences that may or may not exist between visitors’ and the local residents’ requirements of Auckland’s public transport network.

### 3.4 Case Study Area Justification

The research aimed to investigate the need for public transport in relation to urban tourism development in New Zealand. To establish this need it was necessary to focus on an urban area of New Zealand. The case study of Auckland was chosen as it is not only New Zealand’s largest city, but is the main point of entrance for tourists arriving into the country. Auckland was also considered to have the greatest ability to enhance the visitor economy through public transport improvements, as visitor surveys had already highlighted negative connotations towards the public transport network. The literature review identified the diverse range of factors that make cities attractive to visitors. It was identified that Auckland has the infrastructural and attraction base required. The combination of transportation issues relevant to this research, combined with the national importance of the region to the tourism industry, provided the basis of evidence to suggest that Auckland was the most applicable case study location.

### 3.5 Qualitative Data Collection

The qualitative methodology used within this research project is multifaceted, with a mixture of primary and secondary information sources used. This collaborative process acknowledges that, through the use of multiple methods, more reliable research can be produced (Jick, 1979). The following methods were considered consistent with qualitative design. The information sources that were used are discussed in full below. The following is a summary of the sources used within the research strategy:

- Literature review
- Document analysis
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- Semi-structured key informant interviews
- Case studies
- Personal observations

3.5.1 Literature Review

The secondary data collection in this research strategy included a thorough examination of relevant literature in an attempt to help ground the study in wider theoretical parameters. A literature review is an integral part of successful research, as it allows the narrowing down of a research idea to create a topic of ‘research-ability’ (Hart, 2003: 13). The literature reviewed transportation planning within tourism literature and recognised the interconnectedness evident within the two fields, and sought to identify areas of the literature that overlapped. Included within the examined bodies of text were tourism studies, urban tourism planning, sustainable tourism, transportation planning, aviation and sustainable transportation academia. The literature review highlighted the basis of knowledge available and any gaps within this to be identified. With the understanding that no research exists in isolation (Moore, 2006), a researcher must first understand the previous literature base before applying their own findings to the identified academic areas.

3.5.2 Document Analysis

Another important secondary source of information for this research was the analysis of government strategies, national policies, Acts, legislation and regional documents and plans. The overall structure of transport planning is complex and therefore requires significant understanding before research can be undertaken in this realm. The main purpose of this documentation analysis is to provide context for the Auckland region. Highlighting the strategic regional direction for transport planning against historical issues (sprawling development and car dependency) and problems that need to be overcome (funding gaps and political influences). The document analysis may also assist in providing significant and important information that may have otherwise not arisen in the literature review or in the key informant interviews. It is also important to have an
understanding of the current policy direction and limitations facing the Auckland region prior to conducting the key informant interviews. This will ensure the most useable data from the interviewees can be gleaned.

### 3.5.3 Key Informant Interviews

The key method of primary data collection was obtained through a series of key informant interviews predominantly in the Auckland region. Thirteen key informants were selected and interviewed on the basis of their positions within the required professions (a list of the key informants can be found in Appendix 1). The relevant professions were identified through the document analysis. This was done to ensure useable research data was collected. Some key informants were identified and contacted in advance before the commencement of my research between 16 June and 15 July 2011.

Not all key informants were identified and contacted before my arrival in Auckland; other key informants were identified through the process of ‘snowball sampling’. Neuman (2011) defines snowball sampling as “a type of non-random sample in which the researcher begins with one case, and then, based on information about interrelationships from that case, identifies other cases and repeats the process again and again” (Neuman, 2011: 269). This technique allows the utilisation of key informants’ professional and personal ties to reach people in the desired fields of communication (Miller, 2003).

The interviews were semi-structured in order to allow for a more diverse range of potential answers to any one question. This style of interview, according to Maykut and Morehouse (1994) assumes the interviewee as a partial collaborator (Maykut and Morehouse, 1994: 98). This was considered the most appropriate means of interviewing as it is designed to reduce any discomfort between interviewee and interviewer and seeks to encourage the informant to speak freely and with their own opinions. This also grants the interviewee the ability to respond outside the parameters imposed by closed and restricted questioning methods. Semi-structured interviews, as illustrated by Moore (2006) can unearth new pathways not originally considered, but may still be helpful in relation to the overall research questions (Moore, 2006: 373). The basis of the
Chapter Three: Methodology

The interview was formed around a skeleton of key questions. This approach is known as a lightly-structured interview (Wengraf, 2001). This was used to ensure that the same general topics were addressed in all the conducted interviews, however, as the questions were open ended, and the interview was in part directed by the respondent, a reflexive and responsive approach was utilised which has been proven to provide well rounded results.

**Interview Data Analysis**

Data analysis was undertaken to make sense of the data gathered and to identify key themes contained within the data set. Davidson and Tolich (2003) noted that the aim of data analysis “is to search for patterns and regularities in the data collected” (Davidson and Tolich, 2003: 154). The key informant interviews resulted in a large amount of raw qualitative data. In order to organise and sort this data for the result and discussion sections, the data was transcribed and coded into general themes.

These general themes formed the basis of the results, which were discussed against the research questions, objectives and aims outlined in Chapter One. By integrating this key informant data with the case studies, personal observations and key themes identified within the literature review, it ensured that the results were ‘sound’ and are able to stand up against criticism that a singular approach is subject to. This technique is known as triangulation of sources. The use of several data sources as described by Sarantakos (2005) is to ensure the validation of singularly sourced results. This allows for ideas to be compared against each other before overall trends and comparisons are made (Davidson and Tolich, 2003).

**3.5.4 Case Studies**

Case studies provide research material that can be used in a comparative analysis. Such information grounds the potential effects of a study, with actual results witnessed in case studies already undergoing the desired changes and effects. Yin (1984) identifies case studies as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context” (Yin, 1984:
With respect to Yin’s definition, the phenomenon being researched in regards to this research is the methods being used to accommodate visitors’ needs within commuter based public transport networks. The case study cities were identified through an in-depth appraisal. Potential cities were identified as being accommodative of tourist needs. This was primarily achieved through online visitor guides and tourist resources. The cities identified were then further reduced, with the premise that the case study should include, as much as possible, a resemblance with Auckland. Singapore and San Francisco were identified as fitting these criteria in the sense that both cities had private/public operative systems and faced spatial constraints. Singapore and San Francisco were used as a means of identifying primarily practical solutions that were implemented to incorporate the needs of the visitor marketplace.

This focus on visitor specific provisions is in accordance with good case study practice, according to Gray (2009) case studies “explore many themes and subjects, but from a much more focused range of people, organisations or contexts” (Gray, 2009: 246). Obviously, the differences between the case study cities and that of Auckland are a limiting factor. Structural, political and financial circumstances are different to the primary study area. Nevertheless, the case studies are still highly relevant as they provide context for the results that this study is trying to prove, whilst providing solutions and outcomes that can be used as benchmarks for any potential suggestions that may arise in the Auckland context.

3.5.5 Personal Observations

Personal observations of the public transport network and operations in Auckland were used to further reinforce the interpretive research paradigm, as the interpretive research required the situation to be seen from the visitors’ perspective. By observing visitor movements on Auckland’s public transport network, the problems that were identified within literature and in key informant interviews could be further verified, enhancing and validating the results through first-hand observations. These findings will help in the
identification of any recommendations, and will also assist in determining the applicability of any practical solutions found in the case study cities.

### 3.6 Ethical Considerations

When undertaking this research, special ethical consideration was given to the way findings could impact upon the key informants involved. To ensure high ethical standards are maintained, the University of Otago requires the researcher to enter a contract with the University of Otago Ethics Committee before the commencement of any research. Within this contract are various guidelines and obligations that must be adhered to. Each interviewee was provided with an information sheet and consent form prior to the start of an interview. Consent was duly given by all key informants interviewed (an exemplar of the forms can be viewed in Appendix 2). Information was collected and displayed in a discreet manner to ensure that confidentiality of all participants is maintained.

### 3.7 Limitations

There were a number of limitations present within this research process. The timing of this research coincided with the build up to the Rugby World Cup; this created some limitations in arranging interviews. In retrospect, it may have been more beneficial to conduct interviews earlier in the year. This event ran throughout the duration of the study, so the sporting event also provided a basis to determine the infrastructural capability of Auckland, as public transport was identified as a necessity for large sporting events in the literature review; the opportunity has arisen to assess Auckland’s potential as a host city.

The Auckland Tourism Events and Economic Development Agency, a new Council CCO, created from the amalgamation of regional tourism bodies, was in the midst of creating the Regional Visitor Strategy. This reduced the ability of the Agency to provide information specific to this topic, however, the CCO was still able to provide valuable insight and general background information.

Overseas literature and case study examples do have different visitor markets and economies. The differences between overseas examples and Auckland are
important to recognise. Consideration was given to ensure no assumptions were drawn between overseas literature. The researcher comes from a background of physical science and planning and it is acknowledged that this may have impacted on the approaches taken within this thesis. However, without a prior knowledge of transport and tourism, it is considered that the outcomes of this study are minimally affected from this perceived subjectivity, as the researcher was unconnected from both fields of research.

### 3.8 Chapter Summary

This chapter has provided a detailed outline of the qualitative approach and methodological framework that underpins the research within this study. The methods employed have been explained and justified against best practice examples, with consideration given to the specific problems identified. This chapter provides the linkage between the literature examined in the previous chapter and the forthcoming chapters that explain the context of the study before the results are displayed and discussed.
This context chapter sets the research in context, providing a background on New Zealand transportation planning, and how it impacts on the Auckland region. The chapter starts off with an introduction to Auckland, before a historical overview is conducted on transportation and the impact it has had on urban form. The current transportation network and policy direction of Auckland is described, before case study examples are given highlighting the positive benefits that have arisen from recent investment.

From this point, the chapter focuses on national and regional transportation planning frameworks, policies, strategies and guiding documents. This review also includes the relevant land use polices and Acts for Auckland, with particular emphasis applied to the changes in direct consequence to the transportation issues. Special emphasis is applied on the frameworks and principles that guide transportation investment. This context will be critical in order to provide the legislative context to answer Objectives Four and Five.

### 4.1 Introduction to Auckland

Auckland is New Zealand’s largest city, home to 1.4 million people from over 100 ethnicities. Auckland is also the fastest growing region in New Zealand, with predictions Auckland will house 60% of New Zealand’s total growth over the next 30 years, reaching between 2.2 and 2.5 million (Auckland Council, 2011b).

Auckland is situated on a narrow isthmus between two harbours, the Manakau and the Waitemata. The location of Auckland is shown is, below. Auckland is famous for the numerous extinct volcanoes, the islands situated on the Hauraki Gulf and is also commonly referred to as the ‘City of Sails’. Recognition that Auckland has the highest number of leisure boats per population of any city in the world (Auckland Council online, 2011).
The city also boasts New Zealand’s largest airport. Auckland International Airport is the gateway for 70% of New Zealand’s incoming tourists (Auckland International Airport Limited, 2007). Auckland is a key component of the New Zealand tourism industry, accounting for 27% of national tourism revenue (ARC, 2009b).

Central Government and regional planning decisions have played a critical role in shaping Auckland, with transportation planning providing the basis for much of Auckland’s growth and expansion. The role transport played in Auckland’s growth will be further analysed in section (4.2). Today, the city is considered one of the most car-dependent cities in the world, with 80% of all trips made by cars (Ministry of Transport, 2010).
During the latter half of the 20th century, problems associated with Auckland’s sprawl sparked urban infill policies within urban planning documentation. Increasing growth outside the urban envelope brought with it increasing demand on land availability and infrastructure.

In 2009, a report was released by the Royal Commission on Auckland Governance which recommended the establishment of one unitary authority; this was obtained through the amalgamation of the seven previous councils into the Auckland Council. The Auckland Council is currently in the process of creating the new Auckland Plan and Unitary Plan, which could have impact on the outcomes of this research.

4.2 Transportation History and the Impact on Urban Growth

Transportation infrastructure has played an essential role in shaping Auckland. Today, Auckland is inherently car-dependent. In 2001, the city had the worst public transport usage in any western, developed city (Laird et al., 2001). However, Auckland has not always been a city focused around the private car for transport. In fact in 1902 Auckland’s tram system was considered to be one of the finest transit networks in Australasia (Stewart, 1973). The following section is a historical overview of Auckland’s transport history, surmising the key decisions and the impacts this has had on the modern-day urban form.

4.2.1 Auckland’s Transportation ‘Upbringing’

According to Dahms (1980) in 1881, Auckland’s passenger transport was still in a primitive state, with Auckland still considered a “mature pedestrian city” restricting the growth to a compact area flanking the Waitemata harbour (Dhams, 1980: 3). The first mode of land public transport in Auckland can be traced back as early as the 1850s through horse drawn ‘bus’ services (Stewart, 1973).
4.2.2 The Emergence of the Tram

The first commuter horse drawn tramway commenced operation in 1884 (Bush 1971). According to Dhams (1980) by the late 1880s, tram, bus and rail services terminated in lower Queen Street. This ensured that downtown Auckland was the most accessible area of the city and provided the necessary platform for residential movements further away from the predominant place of employment (Dhams, 1980). This residential development followed the extension of the tram lines (Bloomfield 1975; Dhams, 1980). The introduction of the electric trams in 1902 began the transformation of Auckland from a relatively small, compact settlement into the beginning of a sprawling metropolis (Dhams, 1980: 5). This transit orientated development followed the comprehensive tramlines as Figure 8 below shows.

![Figure 8: Auckland’s tramway network in the 1950’s. Source: (http://tundria.com)](http://tundria.com)

As illustrated in Figure 8, Auckland’s tramway network was extensive. In 1939, the tramway consisted of 72 kilometres of track. At the network's peak, patronage reached an astonishing 80 million passengers a year (Lee, 2010). However, Auckland’s tram network was removed permanently in 1956.
4.2.3 The Emergence of Commuter Trains and the Effects on Urban Form

Rail provision was initially administered by central Government; rail along with roading and telecommunication networks were cited as essential ingredients to foster economic development and persuade more emigrational settlement (Sinclair, 1999; Harris, 2007a). From 1870, railway lines were laid to Onehunga, Helensville and the Main Trunk Line connected Auckland with Waikato. The first operational train was documented in 1872 (ARC, 2010b: 7).

Early town planning in New Zealand has been noted for its strong linkages with rail (Evans, 1972; Roche, 2006). This was created through a strong linkage between state housing and rail; state housing accounted for 45% of all housing construction in New Zealand by 1940 (Davidson, 1994). Garden City type developments such as Otahuhu were built along Auckland’s rail lines (Roche, 2006). The way in which the train lines influenced development in Auckland is evident in Figure 9, below, showing the urban built up area in 1915, the red represents the built up area and the dotted line are the railways.

![Figure 9: Auckland’s Built up Area in 1915, highlighting the growth along rail corridors](Source: (ARC, 2010))
Illustrated in Figure 9, Auckland’s growth at the start of the 20\textsuperscript{th} century was predominantly centred along railway corridors. The prevalence of state driven developments began to frustrate private speculators (Harris, 2007b). Subsequently, new schemes for innovative ‘transit oriented’ suburbs were abandoned soon after WWII. Transportation planning and urban form of Auckland underwent drastic transformation in the 1950s. Automobiles became the desired mode, transforming the layout and form of residential areas in Auckland for good.

\subsubsection*{4.2.4 Auckland’s Americanised Dreams}

After the electrification of Wellington’s regional train network, the Labour Government unveiled a ten-year plan for the development of Auckland’s rail network in 1946 (Harris, 2005). As part of this plan, the New Zealand Railways Department engaged British consultants Halcrow & Partners to plan for the electrification of Auckland’s rail network (Mees and Dodson, 2002). The report recommended the construction of an underground central city railway and integration with feeder buses and a single authority to plan and manage the service as a single entity (Mees and Dodson, 2002). However, the recommendations of this report never came to fruition; instead Auckland’s transport planning went in an entirely opposite direction.

It is important to note the change in New Zealand governance after this plan was released, as political influence has also played a central role in Auckland’s transportation history. The newly-formed National Party came into power in 1949 and immediately remedied the perceived concerns around state controlled development (Harris, 2005). The Government also dismantled Auckland’s planning systems that had intensified housing along rail and tram routes (Harris 2005; Harris 2007b). The introduction of the National Roads Act 1953 shifted taxes on vehicles and fuel from general revenue to a National Roads Fund (Harris, 2005). This new form of revenue provided the capital base needed to fund large road building projects.

Until 1954 the National Government maintained a public commitment to the 1946 rail upgrade (Harris, 2005; Lee, 2010). This was overturned in 1954 when...
the plan was ousted for an extensive grade-separated motorway network, outlined in the 1955 Master Transportation Plan for Auckland. This Plan changed the funding balance between private and public transportation. The era of balanced transportation planning was over.

This new-found accessibility offered by the motorways and lenient Governmental policies ensured massive growth of housing developments outside of traditional rail suburbs (Dhams, 1980; Harris, 2005; Harris, 2007b; ARC, 2010b). Dhams (1980) stated that “the opening of the Harbour Bridge heralded the end of the commuter era in Auckland” (Dhams, 1980: 7). The following diagram, Figure 10, highlights the impact roading had on Auckland’s growth, the red shaded areas highlight growth between 1945 and 1964; the blue lines are the motorways of the time:

![Built up area - 1964](image)

**Figure 10: Auckland growth experienced from 1945-1964. Source: (ARC, 2010)**

As shown in Figure 10, the emergence of the motorway network provided the grounds for the sprawling development that Auckland has now become renowned for. This pattern of growth further compounded the desire and need
for private motorcars. This massive uptake of cars did not, however, come
without its costs. As early as 1966, an international consultancy described
Auckland’s CBD pedestrian environment as “unpleasant almost to the point of
being uncivilised” (Harris, 2005: 19). By the 1960s, Auckland was already facing
traffic congestion, as a result of rapid population and motor vehicle ownership
growth (Mees and Dodson 2002; ARC 2010b).

Even though adversities were recognised, this did not change funding priorities;
instead the solution was always sought through road construction. Mees and
Dodson (2001) noted that “the Auckland transport system has been centred
around freeways for much longer than other comparable cities” (Mees and
Dodson, 2001: 1). A revised highway plan was commissioned in 1963; this report
was developed with the newly created computerised transport modelling
technology (Mees and Dodson, 2002). It was also the first time that freight was
used as reasoning for road building (Muhammad and Lee, 2010). This motorway
plan was also, unlike the 1955 Plan, accompanied by a rapid transit scheme. De
Leuw believed only a ‘balanced’ system of expressways and rapid transit could
cope with Auckland’s rising traffic problems (Mees and Dodson, 2002: 7-8).

Again this advice was not withheld. Instead the report was only used as a means
to further the road building crusade. This philosophy dominated Auckland’s
planning for decades to come, with the high automobile mode share and low
density used as reasoning to why Auckland should not invest in public transport.
According to Mees (2009), Auckland - more so than almost any other city in the
world - has structured its planning around the automobile and in doing so has
truly created the ‘city of cars’ (Mees, 2009).

4.2.5 Effect on Public Transport

The political decision to build motorways in the 1950s had a direct and
instantaneous impact on Auckland’s public transport patronage. With the
decision to fund the extensive motorway network, funding streams dried up for
public transport. This resulted in the world’s largest public transport patronage
collapse (Mees and Dodson, 2002). Even though Auckland’s population tripled,
from 360,000 to 1.1 million, between 1955 and 2000, patronage plummeted
from over 100 million annual trips down to only 37 million (Mees and Dodson, 2002; Mees, 2009). This dramatic drop in ridership numbers is displayed in the following graph (Figure 11) taken from Lee (2010).

![Population and Patronage Growth (1925-2009)](image)

**Figure 11: Population Growth and Public Transport Patronage in Auckland 1925-2009.**

Source: (Lee, 2010)

The above graph shows the impact the 1955 Transport Plan had on public transport. The same decisions made in the 1950s were further compounded in the 1970s, even though the oil crisis of the time had reduced car usage and increased public transport patronage, as shown in Figure 11, above. In the 1970s a ‘green city’ rail based plan for Auckland was campaigned, this time by the Auckland mayor Dove Meyer Robinson (Johnson, 1980; Johnson, 1984; Dravitzki and Lester, 2006; Harris, 2007a; Lee, 2010). This plan was also axed under the Muldoon National Government in 1976 (Harris, 2007a; Lee, 2010).

There were virtually no upgrades on the network until the turn of the new century. In 1983, there was a proposal to close the Auckland rail system, this decision was only stopped through public intervention (Mees, 2009). The following section analyses the effects this evident bias has had on Auckland and the current regional transportation directives.
4.3 The American Hersey - Auckland’s Automobile Dependency

The mode share of a city's transportation network is a good indicator of the reliance on the automobile; commonly referred to as automobile dependency. The following table highlights the mode share data collected within the Ministry of Transport's New Zealand Household Travel Survey; the mode share of full time working employees in regions between 2006 and 2010 is displayed in Table 2 below:

<table>
<thead>
<tr>
<th>Region</th>
<th>Auckland</th>
<th>Wellington</th>
<th>Canterbury</th>
<th>Otago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive</td>
<td>78%</td>
<td>53%</td>
<td>66%</td>
<td>70%</td>
</tr>
<tr>
<td>Drive + walk</td>
<td>1%</td>
<td>7%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Passenger</td>
<td>8%</td>
<td>6%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Passenger + walk</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Walk only</td>
<td>3%</td>
<td>7%</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>Cycle</td>
<td>1%</td>
<td>2%</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>PT/ walk or PT</td>
<td>7%</td>
<td>14%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>PT/ car or PT/ car/ walk</td>
<td>1%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>People in sample</td>
<td>1829</td>
<td>909</td>
<td>1566</td>
<td>545</td>
</tr>
</tbody>
</table>

The table highlights Auckland's reliance on the automobile for the vast majority of work based trips. Considering a further 8% are passengers in cars, a total of 86% are dependent on private cars for transport. This reliance is compounded by the urban form of Auckland and the severe lack of investment into public transport, which has eliminated the viability of the services for the majority of the population. This reliance, when assessed over time, seems to be increasing, with the resulting reduction in other more sustainable modes. Such increasing reliance on the motorcar is highlighted in Figure 12 below, taken from the Ministry of Transport’s New Zealand Household Travel Survey:
Chapter Four: Context

The graph above, Figure 12 shows the reliance on the automobile is increasing over time, with all other modes decreasing. When comparing Auckland’s mode share against other comparable international cities, this reliance is unmistakable. The data in Figure 13 below, collected in 2006, showed that Auckland’s three modes of public transport combined held only 7.7% of the total mode share. Compared with other international metropolises, Auckland is only akin to North American cities.

Figure 12: Mode share of New Zealand journey’s to work from 1989 - 2010. Source: (Ministry of Transport, 2010)

Figure 13: 2006 Journey to work mode shares of Auckland and 13 comparative cities. Source: (Auckland Transport, 2011)
The lack of public transport mode share evident in Figure 13 is recognised, and is a targeted area for improvement. However, to attract increased patronage, the historical investment patterns must first be addressed.

4.4 Auckland Transport Policy Directions of Today

The strategic preference towards road building is still having lasting effects on Auckland. The motorway network was never finished and is still requiring significant investment today. However, the decades of mismatched investment between private and public modes is seemingly coming to an end, at least from a regional perspective.

Since the early 2000s Auckland has re-emphasized the importance of public transport, growing off the back of increasing public support. Significant investments have seen the dramatic decline of public transport patronage reversed. Under the previous Labour-led Government, significant funding was assigned to the commuter rail network. Project DART, a $600 million dollar investment programme included the double tracking of the western line, reopening the Onehunga line, station upgrades and the first rail extension of the network since 1930- the Manakau rail link. This project is nearing the end, with the Manakau rail link set to open before the end of 2011.

There has also been investment made into the Rapid Transport Network, with the inclusion of the Northern Busway. Currently the regional train network is being prepared for electrification for the recently-announced electric trains. In order to see the positive benefits that can arise from increased public transport investment, the following section analyses the impact the improvements have had on the rail patronage, and the Northern Busway’s effect on the Auckland Harbour Bridge’s traffic levels.

4.4.1 Public Transport Patronage in Auckland

On the back of much needed investment into Auckland public transport, there has been considerable patronage growth. In the year ending June 2011, the total patronage increase was 8.5% with bus patronage increasing by 7.4% (which
translates to 3.5 million extra bus trips), rail patronage increasing by 16.3% and ferry patronage growing by 5.3%. The graph below, Figure 14, taken from the Auckland Transport June 2011 statistics report, highlights this growing demand for public transport in Auckland:

Illustrated above in Figure 14, Auckland public transport is starting to reverse the negative trends that plagued the city’s transport network shown in Figure 11. From 2006, there has been a total increase of 15 million boarding’s.

### 4.4.2 Rail Patronage

On a percentage basis, the largest patronage growth has been from rail. Auckland’s commuter trains recently eclipsed 10 million trips within a year on 29 June 2011.

According to Auckland Transport’s Chief Executive, David Warburton, there are a number of reasons for this patronage increase: “They include more services, customer service improvements, an improved network and better facilities at our train stations” (AKT online 2011). This rapid growth highlights the importance of investment; this positive patronage can be seen in the graph, Figure 15, below:
The opening of the Britomart downtown station in 2003, as shown in Figure 15 above, had instantaneous, positive impacts on rail patronage. Since 2003 rail patronage has grown an incredible 400%. However, this growth will be capped soon, with the inability for higher frequencies to enter Britomart due to the one-way design.

4.4.3 Northern Express Case Study

The Northern Express Service commenced operations in 2005, with the busway opening in February, 2008. The Northern Express runs as a stand-alone system operating on a two-lane busway that flanks the Northern motorway. The Northern Express commences in Albany at a large park-and-ride facility and subsequent stations are at Constellation, Sunnynook, Smalls Farm and Akoranga. After Akoranga, buses rejoin traffic just prior to the Auckland Harbour Bridge. The obvious advantage of a stand-alone roadway is certainty in travel time.

The Northern Express bus service carried 2,056,890 passenger trips for the 12 months ending June, 2011 with a growth in June 2011 compared to June 2010 of 14.8%. This service has been in huge demand and has resulted in a continual increase of services. As of mid-2011, frequencies of Northern Express buses had
risen to one every three minutes during the morning peak hour (Auckland Council online, 2011). This rapid increase in growth is highlighted in the Auckland Transport graph, Figure 16, below:

![Figure 16: Northern Express Patronage Growth from February, 2007 – June, 2011. Source: (Auckland Transport, 2011)](image)

### 4.4.4 Northern Busway Effects on Motorway Traffic

The direct result of this patronage increase, evident in Figure 16, is a significant reduction of car movements over the Auckland Harbour Bridge. 40% of the morning city bound traffic is now moved via bus, significantly reducing congestion. The patronage increase on the Northern Express service has actually reduced the amount of morning vehicle traffic over the Auckland Harbour Bridge since 2004, even though the North Shore has been experiencing significant growth. The morning Auckland Harbour Bridge mode share data is displayed below:
Figure 17 highlights the positive effects that public transport can have on traffic congestion. The graph shows that traffic levels have actually reduced from 2004, even though a significant increase of overall person trips has occurred.

4.5 Auckland Transport Summary

This overview of Auckland’s transportation history has unearthed a very obvious bias towards the automobile, up until the early 2000s. The shift of transport policy in the mid-1950s was a political decision. The drive to create more roads was still prevalent long after the negative effects were recognised, and other countries had resorted back to balanced funding schemes. This single modal preference moulded the way Auckland grew and the way the residents moved around.

The latter half of this section alluded to the change of regional thinking, and the resurgence of much needed investment into Auckland’s public transport network. What followed has been exceptional growth, particularly on the rail and bus networks not affected by traffic. The Northern Busway has also proven that public transport can be an effective tool in reducing car movements and traffic.
congestion. Through increased investment, it is obvious that residents of Auckland are willing to use public transport. It was long suggested that you can ‘never get Aucklanders out of their cars’, however, this section has shown that with public transport investment, increased ridership will naturally follow. The next section is an analysis of New Zealand’s transport planning frameworks and funding mechanisms.

4.6 Transport Planning Framework – National level

4.6.1 Resource Management Act

Transport planning in New Zealand is a complex issue that is managed by several agencies operating under various statutes. The Resource Management Act, 1991 (RMA) provides the underlying legislative framework for the sustainable management of natural and physical resources. The Act is relevant to transport planning as the Act governs land-use planning in New Zealand, which is affected substantially by transport planning (LGNZ, 2008). In order to facilitate a sustainable transport system, planners and decision makers must hold regard to several sections withheld in Part II of the RMA.

Under the RMA, Regional Policy Statements play a key strategic role in land transport planning. Regional Policy Statements now have more influence on Regional and District Plans as both these Plans must 'give effect ' to Regional Policy Statements (75(3) RMA). The Regional Policy Statement can also help determine the direction of Regional Land Transport Strategies as any Regional Land Transport Strategy needs to be consistent with a Regional Policy Statement (Quality Planning online, 2008).

The RMA Building Competitive Cities reforms are currently out for discussion. This discussion document aims to enable cities to grow, create cities that are efficient for business, encourage investment and jobs and make cities attractive for visitors to support New Zealand’s increasingly important tourism industry (Ministry for the Environment, 2010). The discussion document states that New Zealand cities need to compare to Australian counterparts, however, with a brief
content analysis, the discussion document gave no thought to public transport's role in improving urban areas.

4.6.2 Local Government Act 2002

The Local Government Act (LGA) outlines the purpose, roles and responsibilities of local Governments (Quality Planning online, 2008). In New Zealand, the LGA has a strong influence on land use development and transport planning (ARTA, 2007: 12). The LGA’s primarily ability to influence transport planning is administered through the regional requirements of creating Long-term Council Community Plans. Timeframes for Regional Land Transport Programmes under the Land Transport Management Act 2003 have been aligned with the planning timeframes of the Long-term Council Community Plans. Both documents have a 10-year horizon, providing certainty between regional and national transport planning (LGNZ, 2008).

4.6.3 The Land Transport Management Act

The first Land Transport Management Act of 1998 (LTMA) surpassed the previous ‘Transit New Zealand Act 1989’ as the main piece of legislation dealing with land transport planning and funding. The Transit New Zealand Act 1989 focused entirely on road building; with its primary purpose: “to operate a safe and efficient State Highway system.” This narrow focus was a key reasoning for the amalgamation of Transfund and the Land Transport Safety Authority. This resulted in a fundamental change to the way New Zealand’s transport system is managed (Hancy, 2005). The main aim of the LTMA is to: “contribute to the aim of achieving an integrated, safe, responsive, and sustainable land transport system.”

The LTMA provides the framework for allocating central Government funding to land transport activities and the associated planning processes (LGNZ, 2008). The LTMA amendments in 2008 brought about significant changes to the way in which transport was planned and funded in New Zealand. The term ‘affordable’ was added to the definition under the main aim of the LTMA. The amendments
brought about the new mandatory policy statement to allow central Government to provide more directional input into land transport planning. Within this change, the annual planning cycle was shifted to a three-yearly timeframe. The state agency, New Zealand Transport Agency (NZTA) was also created.

4.6.4 National Infrastructure Plan

The first National Infrastructure Plan was introduced in 2010, out of growing concerns by private businesses resulting from the uncertainty associated with short termed infrastructure planning and expenditure. The Plan describes the principles that will guide future infrastructure investment. With regards to transport infrastructure, the Plan is based around the Roads of National Significance Campaign (RoNS). The Plan does mention public transport, with the goal to create “a public transport system that is robust and effective and offers a range of user options that will attract a greater percentage of long term users” (New Zealand Government, 2011: 26).

The overall aim of the Plan is to build New Zealand’s infrastructure to ensure it is resilient, coordinated and contributes to economic growth and increased quality of life. The Plan rates each section, including transport, against perceived resiliency. The Plan describes resiliency as: “networks are able to deal with significant disruption and changing circumstances” (New Zealand Government, 2011: 12). The following diagram, Figure 17, summarises the current resiliency of sectors:

![Figure 18: Current Resiliency of Infrastructure Sectors in New Zealand. Source: (New Zealand Government 2011)](image-url)
Figure 18, above, has highlighted (with green) that the Plan considers transport infrastructure resilient. However, the Plan does not consider peak oil implications, or any other future impacts directly against transport infrastructure. The Plan also identifies the funding streams for the National Land Transport Fund. Using transport modelling on historic data, the Plan predicts the future growth accruing from the funding sources. This growth is shown in Figure, below:

![Figure 19: Predicted Vehicle Kilometres Growth in New Zealand over the next 20 years. Source: (New Zealand Government 2011)](image)

Figure 19, above, shows the graphical representation of the predicted rise of vehicle kilometres on New Zealand roads. However, the Plan does stipulate that “if transport patterns change, the situation in 20 years could be very different to that shown here” (New Zealand Government, 2011: 27). The levelling off of the vehicle kilometres travelled from 2004-2011 is seemingly overlooked in the estimation, with instead an upwards trend predicted, or enhanced. The resiliency stated within the transport sector, seems unclear and unfeasible, particularly in achieving the desired ‘goals of this plan’.

### 4.6.5 New Zealand Energy Efficiency and Conservation Strategy

This statutory document is primarily aimed at reducing emissions and creating a sustainable economy. The strategy is a key part of the Government’s response to meeting its energy, climate change, sustainability and economic transformation goals (New Zealand Government, 2007: 10). The identification that transport
emissions will play a large role in reducing the overall footprint is emphasised within the strategy: “unless action is taken, emissions from this sector are set to grow by 35 per cent by 2030. Such an outcome is economically and environmentally unacceptable” (New Zealand Government, 2007: 50). The strategy outlines that there is significantly modal shift required in order to meet the targets of a 40% reduction in Co2 by 2040.

The strategy also realises the importance of delivering on the 100% pure brand, stating that it is fundamentally important to the tourism sector. The strategy also identifies that transport represents a large proportion of tourism energy usage and green house gasses, identifying the need to minimise such impacts “as the sector seeks to serve increasingly climate-conscious travellers” (New Zealand Government, 2007: 44). The strategy identifies the large aviation foot print and emphasises the need to offer real opportunities for tourists to reduce their energy use and emissions once they arrive here (New Zealand Government, 2007: 44).

4.6.6 New Zealand Transport Strategy

The New Zealand Transport Strategy (NZTS) - a non-statutory document - was first introduced in 2002. The strategy provided a national policy framework to promote the vision for a sustainable transport network. The vision was that by 2010 New Zealand will have a transport system that is affordable, integrated, safe, responsive, and sustainable. This was going to be achieved through adopting an approach that was forward-looking, collaborative, accountable and evidence-based (Quality Planning online, 2008). Within this vision, the strategy comprised five transport objectives, which in the preparation of Regional Land Transport Strategies must be adhered to: assisting economic development, assisting safety and personal security, improving access and mobility, protecting and promoting public health and ensuring environmental sustainability (Quality Planning online, 2008).

The 2008 NZTS set defined targets for the transport sector and actions to achieve these targets over the next 30 years. These targets were outlined both in the
NZTS and the first Government Policy Statement on Land Transport Funding (GPS). The Government’s vision flowed on from the existing 2002 NZTS with the vision for transport in 2040 being “people and freight in New Zealand have access to an affordable, integrated, safe, responsive and sustainable transport system”. Below in Figure 20, are the desired targets set out under the 2008 NZTS:

<table>
<thead>
<tr>
<th>TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halve per capita greenhouse gas emissions from domestic transport by 2040.</td>
</tr>
<tr>
<td>Increase coastal shipping’s share of inter-regional freight to 30 percent of tonne-kilometres by 2040.</td>
</tr>
<tr>
<td>Increase rail’s share of freight to 25 percent of tonne-kilometres by 2040.</td>
</tr>
<tr>
<td>Become one of the first countries in the world to widely use electric vehicles.</td>
</tr>
<tr>
<td>Reduce the kilometres travelled by single-occupancy vehicles, in major urban areas on weekdays, by ten percent per capita by 2015 compared to 2007.</td>
</tr>
<tr>
<td>Reduce the rated carbon dioxide (CO2) emissions per kilometre of combined average new and used vehicles entering the light vehicle fleet to 170 grams CO2 per kilometre by 2015, with a corresponding reduction in average fuel used per kilometre.</td>
</tr>
<tr>
<td>Increase the area of Crown transport land covered with indigenous vegetation.</td>
</tr>
<tr>
<td>For identified critical routes → improve reliability of journey times → reduce average journey times.</td>
</tr>
<tr>
<td>Reduce road deaths to no more than 200 per annum by 2040.</td>
</tr>
<tr>
<td>Reduce serious injuries on roads to no more than 1,500 per annum by 2040.</td>
</tr>
<tr>
<td>Increase use of public transport to seven percent of all trips by 2040 (e from 111 million boardings in 2005/07 to more than 525 million boardings in 2040).</td>
</tr>
<tr>
<td>Increase walking, cycling and other active modes to 30 percent of total trips in urban areas by 2040.</td>
</tr>
<tr>
<td>Reduce the number of people exposed to health-endangering noise levels from transport.</td>
</tr>
<tr>
<td>Reduce the number of people exposed to health-endangering concentrations of air pollution in locations where the impact of transport emissions is significant.</td>
</tr>
</tbody>
</table>

Figure 20: 2008 NZTS Targets. Source: (Ministry of Transport, 2008)

Figure 20, above, highlights the proposed outcomes of the 2008 NZTS. The strategy set out an elaborate set of desired goals, one of which was to increase public transport boarding’s by 500%, another to reduce emissions by 40% and to being one of the first countries with a wide uptake of electric vehicles. The next section of this context chapter provides an analysis on the funding mechanisms, to assess the viability of meeting the targets set out in Figure 20.
4.7 Funding Mechanisms of New Zealand’s Transport Network

The following section provides an overview of the mechanisms that control and provide transportation funding in New Zealand. The policies, documents and agencies responsible for funding will be examined followed by a brief analysis of any associated problems. This analysis is important to this research, as Objective Five seeks to understand if proposed tourism benefits can be used as leverage for increased investment, so the funding mechanisms must first be understood.

4.7.1 The Government Policy Statement on Infrastructure Investment

As part of the amendments to the LTMA in 2008 the first Government Policy Statement on Infrastructure Investment (GPS) was introduced. This GPS covered the period between 2009/10 – 2018/19 and was issued by the Minister of Transport, Hon. Steve Joyce. The GPS “details the Government’s desired outcomes and funding priorities for the use of the National Land Transport Fund to support activities in the land transport sector” (Ministry of Transport, 2008: 5). The policy statements strategic context is partially shaped via the New Zealand Energy Strategy, the New Zealand Energy Efficiency and Conservation Strategy and the National Infrastructure Plan. The main 2009 GPS targets are outlined in Figure 21, below:

<table>
<thead>
<tr>
<th>GPS TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the kilometres travelled by single-occupancy vehicles, in major urban areas on weekdays, by ten percent per capita by 2015 compared to 2007.</td>
</tr>
<tr>
<td>Increase freight mode share for coastal shipping and rail by 2015.</td>
</tr>
<tr>
<td>No overall deterioration in travel times and reliability on critical routes by 2015.</td>
</tr>
<tr>
<td>Reduce fatalities and hospitalisations from road crashes by 2015.</td>
</tr>
<tr>
<td>Increase patronage on public transport by 3 percent per year through to 2015.</td>
</tr>
<tr>
<td>Increase number of walking and cycling trips by 1 percent per year through to 2015.</td>
</tr>
</tbody>
</table>

Figure 21: The Main Targets of the 2009 GPS. Source: (New Zealand Government, 2008)
As it can be seen the targets set out in Figure, above, follow on from the desired outcomes of the 2008 NZTS. The GPS covers “the impacts the Government wishes to achieve from its investment in land transport, how it will achieve these impacts through funding certain activity classes, how much funding will be provided, and how this funding will be raised” (Ministry of Transport, 2008: 5). The 2009 GPS is in force until the 1 July 2012, upon which the recently released 2012 GPS will take over.

### 4.7.2 2012 GPS

The 2012 GPS builds on and advances the long-term programme of change put in place by the current 2009 GPS; “we brought about a significant change in focus, and good progress has been made in realigning transport expenditure to better support economic growth” (Ministry of Transport, 2011: 2). The 2012 GPS has three priority areas which land transport investment is required to support: economic growth and productivity, improving road safety, and achieving strong value-for-money. The main aim of the GPS is to divide the total amount of investment available for transportation within activity classes - for example, state highways, local road, transport planning or public transport infrastructure. The following legislative requirements of the Act highlight the strategic influence this policy has on New Zealand’s transportation planning:

- The NZTA must give effect to the GPS in developing the National Land Transport Programme and take account of the GPS when approving funding for activities.
- Regional Land Transport Strategies must take account of the GPS.
- Regional Land Transport Programmes must be consistent with the GPS.

### Funding Allocations under the 2012 GPS

The following tables and graphs are representations of the proposed funding allocations within the activity classes. It becomes clear, that the 2012 GPS still has a bias towards state highway investment; in fact 39% of the total budget is allocated to state highways alone. This $11.5 billion dollars set aside for the state
highway network has ensured that other sectors of the transport system are heavily underfunded and face extremely uncertain futures. There is an upper limit and a lower limit highlighted for each class, for the ease of graphical representation the following table (Table 3) is representation of the median allotments granted for the various activity classes over a six-year period, although the GPS covers 10 years, only six years of funding is actually assigned.

Table 3: Adjusted Median Allocations for Activity Classes, 2012 GPS 2011/2012 - 2017/18

<table>
<thead>
<tr>
<th>Funding Class</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New &amp; improved State Highways</td>
<td>1036</td>
<td>1013</td>
<td>1050</td>
<td>1125</td>
<td>1200</td>
<td>1250</td>
<td>1300</td>
<td>7974</td>
</tr>
<tr>
<td>State Highway renewal</td>
<td>202</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>1432</td>
</tr>
<tr>
<td>State Highway maintenance</td>
<td>300</td>
<td>290</td>
<td>290</td>
<td>303</td>
<td>303</td>
<td>303</td>
<td>308</td>
<td>2097</td>
</tr>
<tr>
<td><strong>State Highways Total</strong></td>
<td><strong>1538</strong></td>
<td><strong>1503</strong></td>
<td><strong>1540</strong></td>
<td><strong>1628</strong></td>
<td><strong>1713</strong></td>
<td><strong>1763</strong></td>
<td><strong>1810</strong></td>
<td><strong>11503</strong></td>
</tr>
<tr>
<td>New &amp; improved local roads</td>
<td>132</td>
<td>155</td>
<td>158</td>
<td>160</td>
<td>175</td>
<td>175</td>
<td>175</td>
<td>1130</td>
</tr>
<tr>
<td>Local road renewal</td>
<td>236</td>
<td>220</td>
<td>220</td>
<td>220</td>
<td>225</td>
<td>225</td>
<td>235</td>
<td>1581</td>
</tr>
<tr>
<td>Local road maintenance</td>
<td>251</td>
<td>253</td>
<td>253</td>
<td>253</td>
<td>258</td>
<td>258</td>
<td>258</td>
<td>1784</td>
</tr>
<tr>
<td><strong>Local Roads Total</strong></td>
<td><strong>619</strong></td>
<td><strong>628</strong></td>
<td><strong>631</strong></td>
<td><strong>633</strong></td>
<td><strong>658</strong></td>
<td><strong>658</strong></td>
<td><strong>658</strong></td>
<td><strong>4495</strong></td>
</tr>
<tr>
<td>Road policing</td>
<td>302</td>
<td>295</td>
<td>295</td>
<td>295</td>
<td>298</td>
<td>298</td>
<td>298</td>
<td>2081</td>
</tr>
<tr>
<td>Public transport services</td>
<td>220</td>
<td>255</td>
<td>265</td>
<td>285</td>
<td>298</td>
<td>315</td>
<td>325</td>
<td>1963</td>
</tr>
<tr>
<td>Public transport infrastructure</td>
<td>57</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>35</td>
<td>30</td>
<td>30</td>
<td>272</td>
</tr>
<tr>
<td><strong>Public Transport Total</strong></td>
<td><strong>277</strong></td>
<td><strong>295</strong></td>
<td><strong>305</strong></td>
<td><strong>325</strong></td>
<td><strong>333</strong></td>
<td><strong>345</strong></td>
<td><strong>355</strong></td>
<td><strong>2235</strong></td>
</tr>
<tr>
<td>Road user safety</td>
<td>38</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>236</td>
</tr>
<tr>
<td>Walking and cycling</td>
<td>15</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>141</td>
</tr>
<tr>
<td>Sector training &amp; research</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>30</td>
</tr>
<tr>
<td>Transport planning</td>
<td>32</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>146</td>
</tr>
<tr>
<td>Management of funding allocation</td>
<td>32</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>200</td>
</tr>
<tr>
<td><strong>Other Total</strong></td>
<td><strong>123</strong></td>
<td><strong>103</strong></td>
<td><strong>103</strong></td>
<td><strong>103</strong></td>
<td><strong>107</strong></td>
<td><strong>107</strong></td>
<td><strong>107</strong></td>
<td><strong>753</strong></td>
</tr>
<tr>
<td><strong>Overall Total</strong></td>
<td><strong>2859</strong></td>
<td><strong>2824</strong></td>
<td><strong>2874</strong></td>
<td><strong>2984</strong></td>
<td><strong>3109</strong></td>
<td><strong>3171</strong></td>
<td><strong>3246</strong></td>
<td><strong>21067</strong></td>
</tr>
</tbody>
</table>
By assessing the above table it becomes obvious, where the current Government commitment lies. To ensure a comparison between the activity classes can be seen, the information is also displayed in graphical form, in Figure 22, below. The allocated funds are in $m and the timeframes again cover a six-year period.

![Activity Class Expenditure, GPS 2012](image)

Figure 22: Activity Class Expenditure under the 2012 GPS

The funding allotments shown in Table 3 and Figure clearly show the unbalanced investment patterns in New Zealand. It raises significant questions to the feasibility of achieving the identified goals set out in both the GPS and 2008 NZTS. In order to understand the drivers behind this funding allotment, the Roads of National Significance Campaign must be introduced.

**Introduction to the Roads of National Significance Campaign**

The need to reduce freight and travel times between New Zealand's big centres is the predominant reasoning behind the Roads of National Significance (RoNS) campaign. The RoNS programme is currently made up of seven ‘strategic’ stretches of state highways. Collectively these seven state highway projects are absorbing the majority of overall expenditure earmarked for investment within New Zealand’s transportation network, with the National Government intending on investing nearly $11 billion dollars over the next 10 years (Ministry of Transport, 2011: 1). This is primarily based on the need for economic growth.
and productivity which this Government believes can only be achieved through investment into roading.

4.7.3 Impact on Public Transport Expenditure

The real impact of the GPS is the proposed funding allocations for the activity classes, as this sets the maximum and minimum allotments that the NZTA can spend on activity classes from the National Land Transport Fund over the next six years. With $11.5 billion allocated for state highways, over the same period public transport infrastructure is allocated just $272 million, public transport services (predominantly subsidies) receives the bulk of Governmental funding ($1.9 billion). This allocation does however, exclude rail investment. With this lack of capital in mind, the same document states that there is potential to invest in public transport to decrease future subsidy requirements, and to help alleviate road congestion:

There are also opportunities to improve the value from our public transport spend to ensure that growing sustainable public transport networks does not require increasing levels of subsidy...Providing public transport services and infrastructure can help manage road congestion (Ministry of Transport, 2011: 9).

Although the document highlights the ‘opportunity’ to improve the value for money in public transport; with the overall aim for the reduction in subsidies, the funding allocation is in direct conflict. The bulk of funding allocated for public transport is for public transport service requirements. The relatively minor investment into infrastructure ($272 Million over the next six years) and the scaling back over the six-year period will effectively create a public transport network that is more reliant on long-term subsidies. As the Northern Busway proved investment is required to ascertain patronage increases, reduction in subsidies and congestion mitigation.

4.7.4 National Land Transport Fund

The National Land Transport Fund is Crown money from which the New Zealand Transport Agency (NZTA) can allocate funding from. Funds for the National Land
Transport Fund are predominantly made up through fuel excise charges, charges on diesel and heavy vehicles, registration and licensing fees. Although NZTA allocates money into specific projects, the use of the funds must be aligned with the desired objectives and outcomes of the GPS. In effect the GPS controls the allocation of funding classes, whilst the NZTA decides upon which regional projects are best fitted to meet the overall aim of the New Zealand Transport Strategy. Projects can only compete within funding classes. Therefore, a public transport investment cannot be compared with a state highway improvement and vice versa. This means that the GPS’s allocated funding classes essentially determine the direction of investment for the operational period.

4.7.5 Funding Mechanisms within New Zealand Transportation Funding

Rail investment is not covered within the National Land Transport Fund; instead investment into commuter rail is ascertained through Crown grants. This does not bode well for future rail projects in Auckland without the same ability to acquire funding through the National Land Transport Fund. The policy statements on funding do not seem to take into consideration any future impacts of outside externalities. There are no presumptions that fuel may get expensive, and the ramifications this may have on the amount of traffic and vehicles on New Zealand’s roads.

Instead the 2012 GPS has an assumption that revenue from fuel taxes and road user charges will continue to increase, the 2012 GPS ramps up yearly investment from $2.9 billion at the moment to $4.2 billion by 2021. A significant increase in traffic growth will have to be sustained to ensure this calculated revenue growth is reached. However, with rising fuel prices, worldwide there has been a reduction in traffic volumes in many developed countries (Millard Ball and Schipper, 2011). The following graph (Figure 23) taken from the NZTA State Highway Traffic data booklet, represents the actual level of vehicle usage on New Zealand roads, it would seem that the same effects identified by Millard Ball and Schipper (2011) are also occurring in New Zealand:
Furthermore, with strategic emphasis being applied by the Government to promote the usage of more efficient vehicles, the main stream of revenue will continue to decrease. These assumptions were highlighted within the ‘National Land Transport Fund Annual report’ (2010) stating that From 2005, growth in fuel consumption has begun to taper off – this may be the effect of increasing fuel prices and weakening economic conditions. With the price of crude oil likely to trend higher in the years ahead, we may see a trend towards more fuel efficient vehicles reflected in total fuel consumption (NZTA, 2010: 22).

The benefit to cost analysis forms the basis of any infrastructure feasibility study; the ratio aside the costs against the benefits to identify the economic potential of any given project. However, the way in which these ratios are decided has been identified by the New Zealand Institute for Economic Research as being biased in favour of projects that will have perceived immediate impacts, over a project that sustains benefits in the future:

At 8% real, New Zealand uses a very high discount rate for infrastructure appraisal relative to world standards. This leads to benefits and costs after about 15 to 20 years having little bearing on appraisal results... reducing the relative priority of long-lasting projects that are costly initially (Parker, 2011: 29).

This discount ratio also means that any positives that may arise from the initial investment after 30 years are not considered in the proposal. This lack of long-term benefits ensures that road building is perceived to carry higher benefits.
than a public transport project. A prime example of this can be seen with the Central Rail Link business case. The Central Rail Link is a project that will unlock the potential of Auckland’s rail network by turning Britomart into a through station. As the positives of the project will be created over time, the cost benefit analysis provided by overseas consultants was contradicted by the Central Governments review on the case.

It would seem that there are significant problems with the way in which transport funds are allocated in New Zealand. Given the scope of this study, these problems have been contextualised in order to ascertain the potential for tourism related impacts to be discussed later in this research. There seems to be some disconnect between desired goals and actual funding allotments. The following section looks at Auckland’s transportation planning, the increasing connection between land use planning and the effects the national funding allocation is having on the desired regional directions.

4.8 Auckland Regional Policy and Funding Mechanisms

4.8.1 Auckland Regional Land Transport Strategy 2010-2040

The Auckland Regional Council’s Regional Transport Committee is responsible for preparing the Regional Land Transport Strategy (RLTS). The Regional Transport Committee sets out proposals for the goals, visions and objectives for the development of the Auckland region’s transport system over the next 30 years and the strategic direction that the Strategy should follow (ARC, 2009a).

The RLTS outlines a very balanced strategy to combat Auckland’s growth and transport issues. The RLTS identifies the need to integrate land use and transportation outcomes, with the RLTS supporting the desired outcomes of compact transit orientated development within the Auckland Regional Policy Statement. The RLTS identifies the importance of energy scarcity and Government climate change initiatives. The RLTS notes the importance of a transport system that “contributes to Auckland’s standing as an international city, one that attracts migrants, businesses and tourists” (ARC, 2010a: 21).
The Government’s emphasis on freight transport transpires through the documentation, with key regional and interregional links mentioned as priority for roading investment. However, unlike the GPS the allocation of money between the activity classes is balanced, emphasising Auckland’s need for increased public transport investment. This mismatch in regional and Governmental funding through the National Land Transport Programme has produced a significant funding gap: “for the first 10 years, there is a funding shortfall in the order of $3 billion, largely reflecting a shortfall in funding of rail infrastructure (specifically the CBD rail loop), public transport and local roading improvements” (ARC, 2010a: 66). The required funding and activity classes set out in the RLTS are shown in Figure 24, below:

![Figure 24: First 10 years of funding outlined within 2010 RLTS. Source: (ARC, 2010).](image)

In order to make up for these activity class deficiencies the ARC has highlighted the need to obtain new regional funding sources. The 2010 RLTS moves away from a heavy emphasis on state highway construction to a much stronger emphasis on investing in public transport improvements (ARC, 2010a: 67) reflecting the need for a different approach in Auckland, then the National funding allotments allow.
4.8.2 Regional Land Transport Fund

The first regional transport programme was implemented in 2009 and is currently still active until 2012. Within the plan, the underinvestment in public transport was continually highlighted. Auckland Transport is responsible for preparing the next Regional Land Transport Fund which sets out projects and services to be funded by Auckland Council and the NZTA over the next three years.

4.8.3 Transport and Land Use: Interaction between Key Documents

The connection between transport planning and land use, although complicated, is clear under the current planning frameworks. The key interaction is between the Regional Policy Statement and the Regional Land Transport Strategy. In Auckland, there have been significant amendments made to regional legislation to mitigate adverse impacts that had arisen from a historical disconnect between these two important realms.

4.8.4 The Auckland Regional Policy Statement 1999

The Auckland Regional Policy Statement attempts to manage the use, development and protection of the natural and physical resources of the region. The Auckland Regional Policy Statement has an entire section devoted to transport (Section 4). The following abstract taken from the Auckland Regional Policy Statement highlights the need for the effective and efficient management of transport in the Auckland Region:

An effective and efficient transport system is critical to the social, economic and cultural wellbeing of the Auckland Region and its inhabitants. Transport infrastructure represents a significant physical resource in the Region which requires careful management (ARC, 1999: 57).

Plan Change Six- Auckland Regional Policy Statement

According to Bonis et al., (2010) the Auckland Regional Policy Statement largely failed to recognise the importance of catering for the region’s growth, especially
in the need to provide for both residential intensification and transport integration. Plan Change 6 to the Regional Policy Statement was specifically introduced to manage growing transportation problems, the intention was to better equip the Auckland region to manage the rapid growth, and regionally specific transport issues (Quality Planning online, 2008). The effects of Plan Change 6 are further discussed in section (4.8.6).

### 4.8.5 The Regional Growth Strategy

The Regional Growth Strategy was developed in 1999; the Strategy was a collaborative effort between the seven existing councils of Auckland. The philosophy behind the Regional Growth Strategy was to ensure a robust approach was provided to ensure sustainable growth in the region (Bonis et al., 2010). This Regional Growth Strategy promotes the integration of land use and transportation planning through the development of compact, higher density areas serviced by improved public transport. The Strategy has underpinned the development of the latest draft of the Auckland Spatial Plan, with the desire to create residential intensification still prominent.

### 4.8.6 Local Government Auckland Amendment Act 2004

In Auckland the Local Government Auckland Amendment Act 2004 was created to specifically address transport related pressures from the large population growth occurring within the region. The amendment resulted from Plan Change 6 in the Auckland Regional Policy Statement and ensured that all Auckland Regional Councils integrated their land transport and land use provisions to ensure consistency with the Auckland Regional Growth Strategy.

The Local Government Auckland Amendment Act 2004 Section 39 (1) required: “Each Auckland local authority must, by 31 March 2005, prepare and publicly notify proposed land use changes to its Auckland documents” (ARC, 2007: 4). Section 40 of the Local Government Auckland Amendment Act set out the purposes of the proposed changes, with the need to ‘give effect in an integrated manner’ to the Growth Concept in the Regional Growth Strategy 1999; within
this integrated manner the definition emphasised the need of greater integration between transportation and land use (Bonis et al., 2010).

Under the existing planning framework set out under the RMA, proposed Metropolitan Urban Limit shifts, district plan changes and some developments required an assessment of environmental effects (AEE) (ARTA, 2007). The AEE provides measures to mitigate any adverse affects on the environment; however, the AEE did not assess impacts on the transport network; instead these were assessed via policies, objectives and rules within district plans (ARTA, 2007). This lack of adequate assessment towards transport and land use was remedied through the implementation of the Integrated Transport Assessment. The Integrated Transport Assessment places particular importance on accessibility to land uses by all modes, the main aim according to ARTA (2007) is to: “set out an approach that enables land use development and transport to be sustainable” (ARTA, 2007: 10).

4.8.7 Auckland’s Long-term Community Council Plan

The 2002 Local Government Act applied emphasis on creating strategic planning partnerships between the local Government, public and central Government. This was going to be primarily achieved through LTCCP's (Memon et al., 2007). Auckland’s current LTCCP continues the emphasis on creating a tighter linkage between land use and transport planning, with the overall aim of creating sustainable, compact urban growth. The plan also stipulates that the desired outcomes of the region are partially dependant on central Government funding, with the plan declaring that the Council only has the ability to fund half of the transport projects (ARC, 2006).

4.9 Auckland Public Transport Policies, Plans and Structures

4.9.1 Auckland Passenger Transport Network Plan (2006-2016)

The 10-year Passenger Transport Network Plan, produced by the Auckland Regional Transport Authority (now Auckland Transport) is designed to
recognise the way Auckland is growing, and to change the way Auckland moves (Auckland Transport online, 2010). The Plan gives effect to the passenger transport objectives and policies of the Regional Land Transport Strategy and supports the objectives of the Regional Growth Strategy. It sets out detailed plans to support the development of Auckland as a successful, modern city (Auckland Transport online, 2010). Funding is prioritised, allocating resources to the projects with the highest priority. This gives Auckland Councils Long-term Council Community Plan, NZTA and Kiwirail an idea of Auckland’s transport long-term funding requirements (Auckland Transport online, 2010).

### 4.9.2 Auckland Public Transport Plan

The purpose of the Plan is to specify how the Auckland Regional Transport Authority will give effect to the public transport components of the 2010 Auckland RLTS (ARTA, 2010: iii). The Plan sets out what is needed to make a world class city, and stipulates the movement away from car and truck based planning.

In addition to meeting its statutory requirements, the Plan provides the policy framework for the transformation of Auckland’s public transport system, building on the strategic direction established in the RLTS and the Passenger Transport Network Plan (ARTA, 2010). The overall approach to public transport is to improve, upgrade and expand the public transport system, through the implementation of a four tiered approach:

- **The Rapid Transit Network (RTN)**, which forms the backbone of the system and provides fast, high-frequency service in its own right of way, unaffected by traffic congestion
- **The Quality Transit Network (QTN)**, providing a network of high-frequency, high-quality services, mainly with buses, with bus priority measures operating between key centres and over major corridors
- **The Local Connector Network (LCN)**, providing low to medium-frequency bus, ferry and train services that provide access to local centres and connect with the RTN and QTN vehicle quality and performance standards
• Targeted services, which provide mobility for groups for whom the regular public transport network is not adequate (people with disabilities, school bus services, and services for special events).

4.9.3 Public Transport in Auckland - Cutting Through the Complexities

Auckland’s public transport services are run, managed and operated in an intensively complicated way. Public transport services are provided for under the ‘MAXX’ brand by private transport operators and is coordinated through Auckland Transport. The following is an overview of the management structures of Auckland’s public transport network.

Auckland Transport

With the 2010 changes to the local governance of the Auckland region, a new regional transport authority, Auckland Transport was created. This new organisation combines the transport expertise and functions of eight local and regional councils and the Auckland Regional Transport Authority (Ministry of Transport online, 2011). Auckland Transport is responsible for all of the region’s transport services (excluding state highways) – from roads and footpaths, to cycling, parking and public transport (Ministry of Transport online, 2011).

Commuter Rail Network

KiwiRail (formerly ONTRACK) has a contract with the Central Government to maintain and improve the rail network and control the operations of trains. Auckland Transport is responsible for the upgrade and management of station facilities. Adding to the complexity of Auckland’s commuter services, the trains are administered under the MAXX brand, but, Auckland Council has awarded Veolia with a service contract to operate and maintain the trains which are publicly owned until March, 2014.
Ferries

Commuter ferry services are handled very differently to rail in Auckland. Fullers hold the sole contract with Auckland Transport to operate the ferry services, including ticketing and management of all the ferry terminals. Fullers are self funded in the most part, with fares predominantly paying for the services provided. The ferry services are also provided under the MAXX website.

Buses

Bus services provide the bulk of public transport in Auckland and are operated in a private public partnership, where private companies run services, with some aided by subsidies. The majority of the bus services are operated by NZ Bus.NZ Bus operates the North Star, Metrolink – which includes the LINK service and the free City Circuit buses, Waka Pacific, and Go West. Richies operates services in West Auckland and the North Shore, including the Northern Busway. There are numerous other bus operators. Smaller companies tend to operate in a localised context. Auckland Transport is the regulatory body, with the ability to put routes out for tender. The bus services are also operated under the MAXX brand name.

4.10 Auckland Transport Planning Overview

Auckland’s desire to overturn the historical problems of car orientated planning and sprawling development is paramount throughout the land use and transport planning documentation. The identification that Auckland requires significantly different funding then the national GPS provides for highlights the regionally specific problems, and solutions required.

4.11 Tourism Planning in New Zealand

This section provides a brief overview of the national tourism framework, the ‘Tourism Strategy, 2015’ and local Governments role in tourism planning. This is necessary to identify the desired direction of the tourism industry and the connection between transport planning and tourism planning within local Governments.
4.11.1 New Zealand Tourism Strategy, 2015

The ‘New Zealand Tourism Strategy, 2015’ sets out the vision for a successful, world-leading tourism industry. The desire is to create a tourism industry that is environmentally, economically, culturally and socially sustainable (The Ministry of Tourism, 2007). The strategy identifies the strategic importance of maintaining the sustainability of the nation to ensure the industry’s success, noting that the 100% pure brand has defined how New Zealand is viewed across the globe. The strategy identifies four key outcome areas, to deliver on this vision. The four key outcomes are analysed in regard to this research topic – transport and urban tourism:

- **Outcome One** – New Zealand delivers a world class visitor experience. Within this outcome, there is the identification that New Zealand’s infrastructure must support a quality visitor experience at all stages of the journey.

- **Outcome Two** – New Zealand’s tourism sector is prosperous and attracts ongoing investment. A specific target of Objective Two is to improve tourism demand during the off-season, with urban tourism playing a role in this desired outcome.

- **Outcome Three** – The tourism sector takes a leading role in protecting and enhancing the environment. This outcome seeks to create a sustainable tourism industry. The strategy acknowledges the large impact transport emissions have on this desired goal. A key goal within this outcome is that “the tourism sector leads the way in introducing initiatives that will reduce carbon emissions and increase the energy efficiency of transport within and en route to New Zealand” (The Ministry of Tourism 2007: 6). There is also a motivation to improve energy efficiency within the transportation of visitors.

- **Outcome Four** – The tourism sector and communities work together for mutual development. This outcome attempts to create better connections with local governing bodies and the tourism industry. A key goal is to ensure that local authorities “understand the benefits tourism offers and
lead destination management, planning initiatives and processes to maximise these benefits” (The Ministry of Tourism 2007: 7). The outcome stipulates that core infrastructure is appropriately funded for.

4.11.2 Local Government’s Role in Tourism Planning

Local Government provides core infrastructure, attractions and facilities that tourism relies upon (Ministry of Economic Development, 2006). Balanced tourism development therefore requires a public/private partnership. A common tool in outlining and creating the desired tourism direction of a region is through a tourism strategy. The Auckland Tourism, Events and Economic Development Agency are currently in the middle of creating Auckland’s tourism strategy. This agency was formed under the new Auckland governance in 2010, and was created through the amalgamation of existing council and regional bodies. The makeup of this Council entity is shown in Figure 25, below:

![Figure 25: Makeup of Auckland Tourism Events and Economic Development. Source: (Auckland Council online)](image)

Figure 25 has shown that the new entity is regionally focused, comprising a variety of existing regional bodies and developmental agencies. The Tourism Planning Toolkit states that in order to reach the regions potential for tourism the local authority needs to be proactive about ensuring it has the products to attract and retain visitors (Ministry of Economic Development, 2006: 32). The
document stated seven tourism products, with transportation infrastructure considered an essential element.

4.12 Chapter Summary

This context chapter has established the context of this study, from the regional, Auckland specific context through to the national frameworks and policies. The historical overview identified the negative effects car orientated development had on Auckland’s growth. The positive impacts that have arisen from public transport investment was identified, before an in-depth analysis on the relevant transport planning, land-use planning and tourism planning policies, plans, Acts, legislation and strategies was conducted. Significant emphasis was given to the funding mechanisms, and the problems facing investment into public transport in Auckland, this providing the basis of knowledge to enable the judgment of Objective Four and Five.
The literature review provided insight into the different aspects of public transport that were considered more important to visitors. This case study section builds upon the literature findings, to further ascertain what stipulates an accessible tourism city. It will provide practical examples, which can provide solutions to the problems identified within the literature review. By analysing components of successful cities, this chapter will help materialise findings from the key informant interviews. The chapter presents and analyses the experience of two international cities to allow comparisons, and recommendations to be drawn in Auckland.

The process of choosing the case study cities was identified in the Methodology Chapter, and involved a lengthy elimination process to ensure the two cities investigated were most applicable to this research. San Francisco and Singapore were the two chosen cities; both cities are tourism-orientated, and actively promote the expansion of their visitor economies. The cities are also spatially constrained, San Francisco by the San Francisco Harbour and Singapore by the landmass itself. Both cities have privatised public transport networks that operate in a comparable manner to Auckland. More importantly, both cities were considered to be very easy for the tourist to get around. This was identified through online tourism guides and revues. This chapter identifies the planning structure of both case study cities; with particular emphasis given to practical solutions, aimed at visitors, which could be implemented in New Zealand.

For each case study city, a brief introduction will be given, before a summary of the planning frameworks and public transport structures are highlighted. This will help to identify the underlying components of a successful public transport network. However, the emphasis of the case study chapter is on the practical solutions and the successful implementation of tourism orientated initiatives. This chapter will provide practical, case study examples that will contribute to the formulation of recommendations within Objective Three.
5.1 Introduction to Singapore

Singapore, a country of 4.35 million is a fully urbanised island state of just under 700 km² (Olszewski, 2007). Singapore has a strong economic climate, housing key trading routes and ports. Tourism is starting to emerge as a significant part of Singapore's economy, with 11.6 million tourists visiting the country in 2010, a 20% increase on 2009 (Singapore Tourism Board online, 2011). Since 2005, the Government has been actively promoting the extension of the tourism industry. The promotion of Singapore as a destination is aided by its impressive infrastructural base. Singapore, although a very wealthy nation has low rates of car ownership, primarily the result of a comprehensive management of the private network (Lam and Toan, 2006).

5.1.1 Singapore’s Strategic Transportation Policy

Land use and transport integration has been at the forefront of Singaporean planning since the introduction of the Urban Development Agencies first concept plan in 1971. The Urban Development Agency is the sole land use planning authority for Singapore and works closely with the Land Transport Authority (Olszewski, 2007). The emphasis placed on integrating development with public transport has meant Singapore, according to May (2004), has been able to resist unplanned land-use decisions which have undermined transport strategies elsewhere (May, 2004: 89). This top-down planning has ensured the strategic growth has occurred in Singapore in areas of high public transport accessibility. New roads are designed around the needs of buses, to ensure the best placement of bus stops and bus routing (Lam and Toan, 2006). This has created a simplified bus network; identified as being very attractive to tourists.

Singapore has planned development around the public transport network; this has in turn created greater accessibility for visitors to the city. Commonly, these developments are integrated within Singapore train stations. The train stations in Singapore also act as public transport interchanges, creating a seamless interaction between buses trains and light rail (Land Transport Authority, 1996;
May, 2004; Lam and Toan, 2006). This modal integration can be seen in Figure 26, below:

![Figure 26: Woodland MRT interchange, highlighting vertical integration between modes. Source: (Lam and Toan, 2006)](image)

Figure 26, above, shows the level of modal integration in Singapore, the simplicity of transfers between modes is also aided by the advent of integrated ticketing. The integrated ticketing is provided through two competing smartcards; the fares are based on distance and allow visitors to make transfers without incurring any additional costs (Land Transport Authority online, 2009).

### 5.1.2 Public Transport in Singapore

In Singapore there are three main types of public transport available: Mass Rapid Transit (rail), Light Rapid Transit (light rail) and Buses. The legislative structure of public transport in Singapore is similar to that of Auckland; with competition encouraged within the network. There are two main public transport companies in Singapore: Singapore Mass Rapid Transit and SBS Transit. Both operators provide both bus and trains services, creating multi-nodal competition (Lam and Toan, 2006). There are other smaller, more localised bus providers, which still operate in an integrated manner, operated under the same pricing and ticketing frameworks.

The network is renowned for its punctuality and high-user frequencies, both considered critical components of visitor friendly public transport. The train
network runs from 6am to midnight, with typical frequencies between 3-6 minutes. In terms of accessibility to key tourism areas, the train lines provide most of the required accessibility, with buses servicing other areas of interest. The following table (Table 4) is a summary of online visitor guide opinions towards the perceived level of public transport provision and visitor ease of use. As it becomes clear, Singapore's public transport network is regarded to be very tourism friendly:

Table 4: Summary of Online Travel Guide opinions towards Singapore's Public Transport Network

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Website/Travel guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travelling in Singapore is both easy and economical. There is an efficient public transportation network, which offers buses, and the modern Mass Rapid Transit (MRT) rail system. With its excellent public transport system, Singapore is, without a doubt, the easiest city in Asia to get around.</td>
<td><a href="http://www.marimari.com">www.marimari.com</a></td>
</tr>
<tr>
<td>Singapore has great public transportation. The MRT trains can get you close to any destination that you may want to visit. The maps are easy to read and everything in the MRT stations is in English.</td>
<td><a href="http://www.tripadvisor.com">www.tripadvisor.com</a></td>
</tr>
<tr>
<td>Singapore is undoubtedly the easiest city in Asia to get around. Singapore’s extensive bus service is, needless to say, clean, efficient and regular, reaching every corner of the island. The superb MRT subway system is the easiest, quickest and most comfortable way to get around Singapore.</td>
<td><a href="http://www.lonelyplanet.com">www.lonelyplanet.com</a></td>
</tr>
<tr>
<td>Public transport in Singapore is efficient, safe and easy. For a first-time visitor, however, the abbreviations might seem confusing. Although you can get information on MRT routes in Singapore and bus guides at any station, it is handy to have a route planner at your fingertips, be it as an iPhone application or a website.</td>
<td><a href="http://www.guidegecko.com">www.guidegecko.com</a></td>
</tr>
</tbody>
</table>
5.2 Tourism Specific Initiatives

5.2.1 The Singapore Tourist Pass

The Singapore Tourist Pass, introduced in 2007, is aimed directly at the visitor market. The pass was a collaborative effort between the Singapore Land Transport Authority and the Singapore Tourism Board. The visitor can purchase either a one, two or three day tourist pass. The pass costs either S$18 for one day, S$26 for two days or S$34 for three days, including an S$10 bond for the rental of the card. The pass covers unlimited usage of the MRT, LRT and standard bus services. The pass also includes merchant offerings and selected discounts at visitor attractions. This offers an incentive to stay in Singapore for an extended period of time through heavily discounted travel and significantly reduced ease of use. The pass can be purchased at selected MRT stations and within Changi Airport itself. Since 2008 the tourist pass can be brought online and shipped anywhere in the world prior to the visitors’ arrival in Singapore.

5.2.2 Tourism Specific Information Provision – ‘Travel with Ease’ Guide

Complementing the launch of the Singapore Tourist Pass was the launch of the Public Transport Guide for Tourists, the ‘Travel with Ease’ guide, shown in Figure 27, below. The comprehensive guide is available in a selection of languages and is available online, from selected Singapore Visitors Centres, MRT stations and the Changi airport.

The guide provides the necessary information to make travel on Singapore’s public transport easy for first time users. The guide presents useful information about each mode available and provides handy tips to encourage use. The guide also gives integrated tourism and transport information, providing the best routes that connect to the popular tourist attractions and areas of interest. Singapore has identified the need for enhanced, structured information provision that was identified in the literature review. The ‘Travel with Ease’ guide is a good example of what can be done to encourage more visitors to use public transport.
5.2.3 Schematic Network Diagrams

Singapore also has excellent examples of simplified schematic diagrams which further aid in the perceived easiness of public transport usage. This is important, as the literature review highlighted the importance of ease of use and simplification. Simplifying network maps are seen as a key component in reducing the cognitive effort required to understand a foreign system. Below in Figure 28.
The bottom half of Figure 28 is taken from the larger tourist ‘Key Bus Line’ map. The Map is drawn in such a manner to mirror the simplicity of a light rail service. The routes that are perceived to have tourist appeal or connect areas of interest are only included. The Map also integrates this public transport information with the location of tourist attractions.

5.2.4 Mobile information provision

Singapore was the first country in the world to launch a comprehensive array of online transportation applications. This drive to create web based public transport information was created in 2008, under the Singapore Urban Transport Solution. The idea behind this scheme, was the desire to create research and develop new ideas and solutions for tomorrow’s urban transportation needs (Land Transport Authority, 2008). This scheme was a collaborative effort between industry partners and academic institutions (Land Transport Authority, 2008). To date, this scheme has provided a diverse array of free or inexpensive web or mobile based transport planners. These services were also mentioned on tourism websites, further identifying the importance of such technology, which was discovered in the literature review.
5.3 Introduction to San Francisco

The San Francisco Bay Area, located in Northern California, consists of nine counties, 101 cities, 7,000 square miles and 7.1 million residents (Association of Bay Area Governments online, 2011). In many respects San Francisco faces similar problems to Auckland, a lack of transport funding, increasing congestion, confined topography and a predicted increase of two million additional residents over the next 20 years (Metropolitan Transport Commission, 2005).

Tourism is San Francisco’s largest industry, directly contributing over 66,000 jobs to the region and US$8.3 billion dollars in revenue from the 15.9 million visitors in 2010 (San Francisco Travel Association, 2010). San Francisco is world renowned and regarded as one of the most visitor friendly cities anywhere in the world, the Traveller magazine has declared San Francisco the world’s most desirable tourism destination three times (Hartman and Carnochan, 2002). This recognition is in part created through an extensive and very visitor friendly public transport network.

5.3.1 Public Transport in San Francisco

The Metropolitan Transportation Commission is the agency responsible for the planning, financing and coordination of transportation throughout the San Francisco Bay Area. The San Francisco region is serviced by eight primary public transit networks, as well as numerous other local transit operators (Association of Bay Area Governments online, 2011). The Bay Area does not have an integrated transit system, and most visitors will use services operated by more than one agency during their visit.

San Francisco Municipal Railway, more commonly referred to as Muni is the primary transit operator within San Francisco. Muni operates an extensive network of trains, buses, trolleybuses, streetcars and cable cars. The historic cable cars and streetcars are shown in Figure 29, below. These modes link every tourist destination, shopping district, and residential neighbourhood located
within the City limits, providing a great level of accessibility to both residents and visitors of the city.

Figure 29: Historic Muni Cable Car (left) and Streetcar (right). Source: (CityPASS.com)

Bay Area Rapid Transit or BART is the primary regional transit operator in the wider San Francisco region. This extensive train network connects San Francisco with the Peninsula and Eastern Bay cities, and more importantly from a tourism perspective, both airports. The BART network map can be seen in Figure 30, below. San Francisco’s main airport San Francisco International Airport is connected via a direct train service (from within the terminal) and San Francisco’s secondary airport Oakland International Airport is connected via an ‘AirBART’ bus connection to the nearest BART station. This provides an efficient and certain mode of transportation for visitors arriving into San Francisco.

Figure 30: BART Network Map. Source: m.bart.gov

San Francisco, more so then any other American city, has invested in public transport, the effects on the visitor economy is evident. Travel guides and websites praise the city’s public transport network; urging visitors to use mass transit options to minimise stress and frustration when visiting the city. The public transport network services all tourist attractions and areas of interest within the city limits, providing the accessibility required without the reliance on
private modes. The following table, Table 4, is a summary of travel guide opinions towards San Francisco’s public transport network:

**Table 5: Summary of online travel guide opinions towards San Francisco’s public transport network**

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Website/Travel guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>When San Franciscans don’t have somewhere else to be right quick – and even when they do – most people walk, bike, or take Muni instead of a car or cab. This is the best way to take in San Francisco, and helps preserve the city’s many all-natural charms.</td>
<td><a href="http://www.lonelyplanet.com">www.lonelyplanet.com</a></td>
</tr>
<tr>
<td>San Francisco is a compact city with an extensive public transportation network that makes getting around without a car the preferred method of seeing the City. The Bay Area does not have an integrated transit system, and most visitors will use services operated by more than one agency during their visit.</td>
<td>Tripadvisor.com</td>
</tr>
<tr>
<td>San Francisco is definitely a public-transit town—if locals aren’t walking or biking, they are using the bus or train (anyone who has spent an hour searching for parking will wholeheartedly agree!). The city’s easily accessible public transit is a positive for travellers.</td>
<td>Budgettravelblog.com</td>
</tr>
<tr>
<td>San Francisco has developed an efficient and extensive public transportation network utilising rail, buses, trolleybuses, streetcars, ferries, and, of course, the famous cable cars... Because of the traffic and parking situation, I recommend that for one’s own safety and lack of frustration, the traveller to San Francisco thoroughly utilise the public transportation options available.</td>
<td>Virtualtourist.com</td>
</tr>
</tbody>
</table>

5.3.2 Ticketing

Ticketing is rather complex in San Francisco due to the many transit operators in San Francisco and the surrounding counties. It is a primary concern raised within travel guides. However, the introduction of the Clipper Smartcard has started to reduce complexities that exist between different operators. The
Smartcard is managed by the Metropolitan Transportation Commission. Currently the Clipper card can be used on: Muni, BART, AC Transit, VTA, SamTrans, Caltrain and Golden Gate Transit and Ferry.

5.3.3 Tourism Specific passes

Muni Passport

The Muni Passport is a visitor ticket that can be purchased for one, three or seven days. The one day passport costs US$14, three day passport US$21 and the seven day passport is US$27. The passport allows unlimited rides on Muni including, cable cars, which are alternatively $5 for a one off ride. The passport is available for sale at service centres, normal Muni ticket sale locations and at the San Francisco International Airport.

CityPASS

CityPASS is a popular, combined transit and attraction visitor pass available in selected cities across the United States. In the case of the San Francisco, the CityPASS consists of seven days unlimited transportation on all Muni services and admission to five or six of the most popular tourist attractions in San Francisco. The CityPASS offers a 50% reduction in tourist attractions. Both passes offer visitors economic incentives to stay in the San Francisco area for an extended period of time. By encouraging people to stay with discounted transportation, the city will in turn gain from increased tourism revenue.

5.3.4 Tourism Orientated Public Transport - The F-line Case Study

The San Francisco F-line is a historic street car service primarily operated for tourists. Unlike the other cable car lines, the F-line utilises a fleet of historic vehicles. The F-line was introduced in 1995 after the success of the Historic Trolley Festival (Market Street Railway online, 2011). The F-line originally operated along Market Street, San Francisco’s main street. Due to its immediate success, this line was extended.
In early 2000, the F-line service was extended to incorporate the popular tourist area of Fisherman’s wharf. Today, the service is frequented by visitors and residents of the region. This service provides an important means of accessibility connecting many points of interest within the city, but more importantly, provides transport in an attractive and interesting way. Today, the waterfront of San Francisco is a thriving tourism area, helped in part by the attractive transport options that encourage people into the downtown area.

5.3.5 Internet and Mobile Information Development

Aside from tourism San Francisco is also renowned for its innovation in electronics and computing technology. Unsurprisingly San Francisco has been a hotbed for Smartphone, and internet based public transport information development. Large transit operators have online and mobile applications for their own networks. There has also been a strategic push to foster the creation of private third party applications; with the allocation of free, Real-time transit departure information developed through Google.

Currently several regional transit agencies, including BART, Muni, and AC Transit have this real time information available. This has resulted in an extensive array of public transit mobile applications. The reasoning behind this was to foster innovative applications, reach a broader audience and encourage more people to use public transit (San Francisco Bay Area Rapid Transit District online, 2011). To date there have been over 20 applications developed. Again, like Singapore, there is a strategic drive for online transport routing applications. This was also identified on travel websites, with many reviews encouraging the purchase of such an application.

5.4 Chapter Summary

This chapter has outlined two cities that have both identified the importance of the visitor economy and the role public transport can play in fostering the growth of the industry. It would seem that both case studies have incorporated the requirements of the tourism industry into their commuter based planning of
the networks. In both cities, public transport serviced all attractions and areas of interest.

San Francisco, although currently limited by a lack of complete modal integration, has provided valuable insights into the ability for attractive modes to act as a catalyst in tourism areas. The F-line was a perfect example of the positive impacts attractive modes of public transport can have. This service was described as an integral element of the successful transformation of the Fisherman’s Wharf and Downtown areas. This will provide usable information for Objective Four, providing evidence of the benefits that can arise from investment within attractive modes of public transportation.

Both case study cities provided tourism passes, encouraging longer stays with the allure of cheap transport. The visitor pass also reduced the effort of transferring between modes, thus, alleviating concerns raised in the literature on public transport being hard to use. Singapore, in particular, provided valuable insight into the importance of mechanisms available, to provide strategic information for the incoming visitor. With public transport information provision being highlighted within the literature as a key concern, special consideration will be given to such findings in the formulation of recommendations within Objective Three.
6 Results and Discussion

This chapter sets out the results and accompanying discussion of the five research objectives. The chapter presents the primary results obtained through key informant interviews with planning and tourism professionals. The key informant interviews were coded, and categorised under the respective objectives.

The key informant opinions were then analysed and interpreted against the aim, objectives, and research questions set out in Chapter One. This was achieved by analysing key informant opinions against the respective literature, the document analysis, personal observations and where appropriate, the two case study cities. Conclusions are drawn by combining the primary results against the research objectives, whilst ensuring the methodological framework that guides the process is still adhered to.

The following chapter presents the combined results and discussion set out under each respective objective. The design and layout of this chapter is in a linear progression, with each objective building up evidence to ultimately conclude the viability of the over-arching research question. This progression makes the contribution of this research clear, in regards to the two primary fields – transport planning and tourism development.

6.1 Objective One:

Is there a need for public transport in tourism? From a national perspective and a regional Auckland viewpoint?

This objective seeks to identify the need for public transportation in regards to urban tourism development. This section contains key informant opinions which are analysed against the document analysis and relevant literature. The section first identifies the need for sustainable tourism development in New Zealand, and the role transportation may have. The scope is then narrowed down to focus
on public transport’s role in tourism development in Auckland. The desire to expand the Auckland visitor economy is investigated as are the potential national impacts. The key drivers and needs for investment are identified and discussed. This section attempts to identify the need for investment in Auckland, and provides valuable weighting to forthcoming objectives.

6.1.1 Transport and a Sustainable Tourism Industry

The ‘New Zealand Tourism Strategy, 2015’ acknowledges the impact transportation emissions have on the sustainability of New Zealand’s tourism industry. This problem was also identified by Gössling (2000); Becken (2001) and Becken and Simmons (2002). Within Objective Three of the strategy, the need to investigate new initiatives reducing transportation emissions is highlighted: “The tourism sector leads the way in introducing initiatives that will reduce carbon emissions and increase the energy efficiency of transport within and en route to New Zealand” (The Ministry of Tourism, 2007: 6). If the overarching goal of the strategy – to be the leading contributor to a sustainable New Zealand economy - is to be met, then sustainable transportation solutions will have to play an integral role. This perceived requirement was also identified by Key Informant 11:

Transport represents the majority of the concern towards sustainability. A large part of this is travelling to New Zealand, because we are so isolated, we are very aware that there is a massive carbon footprint before people even get here. Tourism consumers are becoming much more aware of this impact, so I guess it is trying to provide them with some solutions when they are here (Key Informant 11).

With New Zealand’s large aviation footprint and the complications surrounding the ability to provide a sustainable means of fuel suitable for aviation (Daggett et al., 2006) the solution may lie in reducing travel emissions from domestic travel.

A key concern voiced by key informants was the need to reinforce the 100% pure imagery the tourism industry was based upon. There was considerable concern towards the inability to back up this strategic branding. It was identified that there needed to be actions to reinforce the branding. Key Informant 2
mentioned the irony of this branding in contrast to the direction of the current transportation policy; whilst Key Informant 11 cited that the ‘clean green’ perception is starting to erode. The following table (Table 6) is a summary of key informant opinions that reinforce the importance of backing up the branding with actions.

**Table 6: Key Informant opinions on the importance of transport solutions in maintaining the 100% pure branding**

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well if you base your entire tourism strategy on 100% pure, it is absolutely essential to ensure everything possible is done to maintain that, otherwise you are walking a very thin line.</td>
<td>1</td>
</tr>
<tr>
<td>People do see us as being green, and perception is reality now, so people think we have to live up to that. So for me this is a huge opportunity, we need to grasp that with two hands. ..There has been some interesting coverage around that, people are starting to dig behind our brand.</td>
<td>11</td>
</tr>
<tr>
<td>100% pure is nonsense, ministry of tourism is saying its inspirational we know it’s not reality, but it’s not even inspirational as you cannot base that type of branding when basically cars and fossil fuel burning is your strategy.</td>
<td>2</td>
</tr>
</tbody>
</table>

The literature review identified considerable problems currently reducing the ability for technology alone to reduce negative external effects of transport. Many technologies were either unsustainable in the production side, or required significant technological advancements to become feasible. This currently restricts the ability of the tourism industry to rely on technological advancement alone.

**6.1.2 The ‘Eco-sensitive’ Tourist**

A strong theme throughout key informant interviews was the perceived recognition by tourists of their environmental impacts. A 2001 study by Baysan also concluded that the mode of transport used by a tourist was partially determined by that person’s environmental awareness. With New Zealand’s reputation as an eco-tourism destination and strategic emphasis placed on the
protection and enhancement of our natural environment, it could be suggested that New Zealand attracts eco-conscious visitors. Indeed it is evident through key informant interviews that there is evidence to suggest that people are becoming more aware and sensitive to the way they are travelling. The following table (Table 7) is a section of quotations regarding this perceived eco-sensitivity.

**Table 7: Key Informant quotations providing evidence on the eco-consciousness of incoming visitors**

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a growing awareness of environmental impacts, tourists are becoming more aware of their own impacts, and increasingly people are looking for sustainable solutions.</td>
<td>1</td>
</tr>
<tr>
<td>I think tourists help drive change, you know we have had requests for things like battery recycling, so we have implemented battery recycling into I-sites. We are trying to create more sustainable businesses, so that we are trying to deliver on some of our branding.</td>
<td>11</td>
</tr>
<tr>
<td>It is very frustrating from a tourism perspective as you know we seem to be heading in absolutely the opposite direction to other major destinations around the world and that makes us perceived to be a bit backward, and perceived as not responding to what people want.</td>
<td>2</td>
</tr>
</tbody>
</table>

This table has shown that visitors are becoming more aware of their impacts, and are conceivably more conducive to sustainable modes. This identified preference backs up the findings of the 2001 Baysan study; with the results highlighting the connection between eco-consciousness and modal choice.

Promoting sustainable means of transport is good for the New Zealand tourism industry's image, fitting neatly under the 100% pure ideology. Currently, there is a drive to create regional cycleways to provide sustainable transport solutions; however, cycling is not suitable for all visitors to New Zealand, so other modes must also be encouraged.
6.1.3 Who are identified as Captive Public Transport Users?

Tourists arriving in New Zealand have either the choice of hiring a private means of transport, or they use mass transit options on offer. It has been shown in overseas studies, namely (Thompson and Schofield, 2007; Albalate and Bel, 2010; Kinsella and Caulfield, 2011) that a large percentage of incoming visitors to urban areas are considered to be captive public transport users. Although there are differences in the makeup of passenger itineraries in New Zealand, with a much higher percentage of incoming visitors hiring private modes, key informants consistently repeated the view that there was still a demand for mass transit, especially in urban areas.

When trying to understand the role public transport will play in destination development; there is a need to determine the type of visitor that the public transport is applicable for. Most key informants agreed that one segment of incoming visitors was of particular importance - the free independent traveller - commonly referred to as the ‘FIT’. These travellers were interested in getting around New Zealand and Auckland, effectively and in a cost effective manner. The following table summarises key informant opinions regarding the need for public transport in relation to FIT's.

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is always a large number of FIT’s who want to see Auckland and indeed other urban areas in New Zealand by themselves, to create their own itinerary and to spend as much or as little time in any given area.</td>
<td>7</td>
</tr>
<tr>
<td>Public transport is the cheapest way to get around, our backpacker market has been really important throughout the recession, because backpackers are still travelling.</td>
<td>11</td>
</tr>
<tr>
<td>In terms of how people experience this country it has changed dramatically from when 40 people will jump on a bus and tour the country for two weeks, it is now dominated by what we call free independent travellers.</td>
<td>2</td>
</tr>
</tbody>
</table>
Public transport was considered not only applicable to FIT's, but to many other people and for numerous reasons. A common theme was that for shorter stays, increased emphasis was applied on public transport as a genuine means of transport. Key Informant 5 identified the large spectrum of visitors that will use public transport if it is available. The informant noted that organised packaged tours are not suited to everyone, and that there is still a large proportion of incoming tourists that require transportation, but do not want the hassle or have the ability to hire a rental vehicle. He described this middle area between the private car and the package tour as public transports ‘active market’. The following diagram (Figure 31) illustrates the cross section of visitors that are considered to be active transport users; the red shaded area demonstrates the diverse range of visitors that may use public transport:

![Organised Traveller](chart1)

**Figure 31: Illustration of the captive public transport market**

When considering the percentage of visitors receptive to public transport travel, the forecasted change in the age of incoming tourists should be considered. The ageing global population coupled with increasing discretionary incomes will mean that the travelling population will consist of a higher proportion of elderly, retired travellers (Penalta and Uysal, 1992; Tretheway and Mak, 2006; Glover and Prideaux, 2009). Public transport is needed by the general public with disabilities, senior citizens, families or people without access to cars. The same problem exists, if not further amplified in the visitor market. With the connection between age and public transport in transport literature, the same could similarly be presumed in tourism transport, creating an increase in demand for public transport.

The need for good public transport that caterers for a wide range of needs was noted by key informants, stating that the accessibility offered by mass transit
was also believed to be beneficial for visitors with small children, tourists with luggage or even people with shopping bags, the following table (Table 9) summarises the key quotations.

Table 9: Key informant quotations in support of the diversity with public transport’s captive market

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public transport defiantly plays a massive part into the accessibility of areas and also accessibility of people’s needs; people with disabilities, the ageing visitor market, parents with buggies.</td>
<td>11</td>
</tr>
<tr>
<td>If you look at all the best cities in the world, the best tourism cities and the best cities in general. They all have excellent public transport systems. That is one of the reasons why you go there particularly if you’re an older person or less confident, you feel safer on those modes of transport and you know that you will finish up where you want to finish up.</td>
<td>1</td>
</tr>
<tr>
<td>Public transports caters for mums and dads with buggies, elderly people, people with bikes, people with luggage, people going to and from the airport and people with shopping.</td>
<td>9</td>
</tr>
</tbody>
</table>

In the USA the inability of the growing elderly population to drive, coupled with the continued desire to participate in recreational travel, was identified as a primary reason behind President Obama’s drive for interregional high speed trains (Becker and George, 2011). Similar consideration should be given to the provision of public transport in New Zealand. The domestic population is also ageing, with the predictions identifying that 25 per cent of New Zealand’s population in 2050 will be over the age of 65 (Statistics New Zealand, 2006). This will ensure that there will be a higher proportion of not only visitors but also New Zealand residents reliant on public transport for their leisure based travel.

6.1.4 The Desire to Grow Auckland’s Visitor Economy

The Auckland region has a significant opportunity to increase the well-being of its residents and enhance its economic performance by transforming itself from a gateway, into a world-class visitor destination (Auckland Plus, 2007: 4).
Chapter Six: Results and Discussion

Auckland is currently trying to create a ‘more visitor friendly destination’, with the overall aim of increasing visitor revenue. In 2006, the tourism sector contributed 4% of Auckland’s regional GDP, and directly employed 7.4% of the regions workforce (ARC, 2009b). Key Informant 1 regarded Auckland as New Zealand’s gateway destination, with 70% of New Zealand’s visitors arriving at Auckland International Airport. The challenge for Auckland therefore, is to increase the average length of stay, whilst also encouraging more people to visit the region. Auckland is well situated in many respects: the region has great international accessibility through both the aviation and cruise line industries, a hinterland that offers diversity rivalled in few other urban locations and a world recognised brand - the ‘City of Sails’.

6.1.5 Is the desire to grow Auckland’s visitor economy in the best interests of New Zealand tourism?

When considering the expansion of the Auckland visitor economy, Key Informant 3 voiced some concern to whether encouraging more people to stay in Auckland would be beneficial for the New Zealand tourism. However, Key Informant 12 mentioned that from a national perspective “the goal is to attract people to New Zealand. It matters less where they visit, as their spend will flow through the economy anyway” (Key Informant 12). Within the ‘Tourism Strategy, 2015’ the need to increase visitor expenditure and decrease seasonality was identified as two main goals of the industry. With the diversity of products on offer and the multitude of reasons people visit urban areas (Law, 1993; Law, 1996; Law, 2002) it could be concluded that visitors have more opportunity to purchase goods, use amenities or stay in accommodation. Indeed this perception was upheld by Key Informant 12, who stated “it is reasonable to expect visitors will generally spend more money in cities, there are more opportunities to spend money, and the increased cost of accommodation” (Key Informant 12).

Urban areas attract a diverse sector of visitors from business travellers, friends and family to cruise ship passengers. This range of incoming visitors could conceivably be less seasonally exclusive than a common visitor to New Zealand’s
shores. Key Informant 12 identified a lack of research on the matter but stated that “promoting urban stays is likely to help with seasonality” (Key Informant 12). With the increased prominence of short holidays, and the identification that urban tourism is ideally suited to capture this market (Law, 1996; Law, 2002) Auckland has the ability to sell itself as a weekend destination. Key Informant 11 mentioned that this was already a strategic drive for Auckland tourism. However, to ensure the growth of Auckland, and the identified positive benefits for Tourism New Zealand, the infrastructure tourists to urban areas are reliant on must first be in place.

6.1.6 Accessibilities role in Administrating this Desired Growth

Accessibility offered by transport is the underlying element in creating tourist areas. The lack of academic work focusing on the effects transport has on tourism destination development is acknowledged by (Page, 1994; Hall, 1999; Page, 2004). The role in which public transport will play in the development of Auckland has been investigated significantly within this thesis. The one problem continually mentioned in both key informant interviews and visitor satisfaction surveys (Auckland Plus, 2007) is the accessibility issues resulting from Auckland’s car based planning ideals.

Literature suggests that for tourism to occur in urban areas, public transport is a significant element in the successful destination development (Jansen-Verbeke, 1986; Law, 1996; Albalate and Bel, 2010). The decades of underinvestment in Auckland’s public transport has created a network that doesn’t meet the requirements of the incoming visitor. Schofield and Thompson (2007) identified tourists as being more reliant on public transport in urban areas, Alabate and Bel (2010) mentioned that few tourists decide (or can afford) to hire private transport. Key informant interviews identified the current lack of adequate public transport infrastructure as being an area of particular concern, and a hindrance to the desired growth of Auckland’s visitor economy, below in Table 10 is a summary of the key quotations.
Table 10: Key informant perspectives on the negative implications Auckland's public transport is having on the desired growth of the visitor economy

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have Auckland Tourism at the moment saying that we want to make Auckland much more than a gateway, we want to make Auckland a destination in its own right. They are struggling, as Auckland is so infrastructurally poor, and public transport is a big part of this.</td>
<td>2</td>
</tr>
<tr>
<td>If you compare Auckland to any other tourist city, Auckland will be at the bottom of the pile in terms of Public Transport provision, what this shows is that successful visitor friendly cities have invested in other modes of transport. If Auckland is serious about creating a larger visitor economy, you must first consider what visitors need.</td>
<td>1</td>
</tr>
<tr>
<td>Indeed, Auckland has all the attractions visitors want but it is just too hard for them to get around, all the attractions do not have the level of accessibility required.</td>
<td>11</td>
</tr>
</tbody>
</table>

It seems that although Auckland is considered to have all the attractants people visit cities for, the inaccessibility is a key limiting factor. The following section, analyses the negative impacts that this identified problem is having on Auckland's tourism and the desired development of the visitor industry.

6.1.7 Inaccessibility and Time Spent in Auckland

Khadaroo and Seetanah (2008) link the importance of an effective and accessible transportation system to the time any given tourist would stay in one particular area. The accessibility requirement within a destination was identified by Hall (1999) as one of four key components of the relationship between tourism and transportation. Indeed, it would seem that the required accessibility levels are currently not being met in Auckland. Almost all key informants identified the ineffectiveness of Auckland’s public transport network, and the negative effects that car dependency has in influencing factors that determine how long people are willing to stay in the Auckland region. The following table (Table 11) provides key informant evidence.
Table 11: Key Informant perspectives on the accessibility issues and the impacts on the time spent in Auckland

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, well I think the second most important thing to consider is how you get about, and Auckland doesn’t do very well with that, and I think it is a negative influence from people wanting to stay; perhaps an extra night is what we’re losing at the moment. People are using it as a way of getting into New Zealand and getting out as quickly as they can.</td>
<td>1</td>
</tr>
<tr>
<td>I think traffic congestion here in Auckland is bad, it effects our decisions. Possibly the traffic congestion might be a disincentive for a self drive client to stay in the city.</td>
<td>6</td>
</tr>
<tr>
<td>Public transport investment has wider ramifications than building a road. Motorways don’t keep people in Auckland, whereas if it was easier to get around on other modes then it would.</td>
<td>2</td>
</tr>
<tr>
<td>It has been shown in other parts of the world; public transport is required first, before the benefits can be acquired.</td>
<td>5</td>
</tr>
<tr>
<td>You have just got to make it easy for people to do the stuff that they want to do and if it’s hard they will go elsewhere, it’s pretty simple really.</td>
<td>2</td>
</tr>
</tbody>
</table>

Key informants consistently expressed a strong connection that exists between the lack of public transport infrastructure and the negative effects of Auckland’s car dependence with a reduction of time the average visitor will spend in the Auckland region. This correlation identified by key informants supports the findings of Khadroo and Seetanah (2008). In order to entice visitors to stay for longer periods of time, key informants believed that the internal accessibility needed improving.

6.1.8 Accessibility, Attractions and the Linkage with Revenue

Law (2002) cited that tourism planners predominantly had little influence on public transport planning which resulted in most networks not being ideally suited for the needs of visitors. Indeed it would seem that this research has
uncovered the same problem in Auckland. Laws (2002) key concern centred on route coverage, this problem also featured prominently throughout key informant interviews. The lack of route coverage to key attractions was of particular concern, with many informants stating that tourism operators had to put on their own transport, as there was a belief that the current levels of public transit on offer are not sufficient, these connotations are highlighted in Table 12, below.

**Table 12: Key informant perspectives on the lack of public transport route coverage to tourist attractions**

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well they have to provide their own public transportation, that’s why you have Kelly Tarltons have their own bus. The fish market has their own bus because they felt the need for it, as the council wasn’t providing an adequate service.</td>
<td>5</td>
</tr>
<tr>
<td>And that is a challenge for some of our operators is the fact there isn’t public transport out there, so people ask how am I going to get there for RWC? So some of them have to offer their own transport services.</td>
<td>11</td>
</tr>
<tr>
<td>Without accessibility, no one attraction or destination can reach its maximum potential, this is a critical proposition.</td>
<td>7</td>
</tr>
</tbody>
</table>

This notion was further emphasised by Key Informant 7, a tourism operator, stating that “visitors pay for the museum, it is free for residents, so I would have thought it would be in the council’s best interest to improve accessibility, however, they do not make it easy, especially not for cruise ship passengers” (Key Informant 7). The findings are in line with Kaul (1985) in the sense that Auckland is limiting the profitability of attractions by limiting the accessibility for visitors without access to private modes. The desire by Auckland Tourism to increase visitor expenditure, creating this necessary accessibility could play a significant role.

**6.1.9 Auckland’s Hinterland and the Current Inaccessibility**

When asking key informants about the potential for expanding the visitor economy in Auckland, the diversity of products on offer was cited as the primary
advantage. Key Informant 1 identified this comparative advantage by evaluating the accessibility of Auckland against Sydney, noting that “Auckland has a large advantage compared to many other cities in the fact that so much is accessible within a 1 hour time frame, compare this to say Sydney, and you need to travel three or four hours to reach similar destinations of interest” (Key Informant 1). However, although the hinterland is accessible by private modes, currently there is a lack of public transport connections. So this recognised strength is almost entirely negated by the lack of transport to these areas (Auckland Plus, 2007: 8).

Key Informant 11 noted that Auckland’s entrenched automobile dependency, ensured visitors without access to cars are severely disadvantaged:

People don’t necessarily enjoy Auckland if they don’t have a car, but that is the problem we all have cars and accept that need, but that is not how it should be they [visitor’s] don’t want to hire a car, and the costs which take away from their experience. So it is important to have the infrastructure there to provide alternatives (Key Informant 11).

The Auckland Plus (2007) paper titled ‘Bringing the World to Auckland’ suggested that a critical component in enhancing Auckland’s visitor marketplace was to open up the surrounding hinterlands. This recognised that the underutilisation of the area was primarily a result of inaccessibility. Thus, providing accessibility within the hinterlands was considered one of seven categories critical in enabling Auckland to become a world class destination.

This means that the large proportion of travellers identified as captive public transport users in section (6.1.3) are restricted in the attractions they can currently visit. Key Informants also mentioned the lack of public transport accessibility as a limiting factor in the desired expansion of these hinterland destinations, an example commonly used was the Waitakere Ranges. The following table (Table 13) is a summary of these key informant opinions.
Table 13: Key Informant perspectives on the current inaccessibility within Auckland’s hinterland

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>You can experience in the Auckland region an almost microcosm of New Zealand, you can see great harbours, great native bush. So I think it would be very attractive for tourists to have a public transport system servicing some of these places.</td>
<td>1</td>
</tr>
<tr>
<td>Once again I don’t think we have been that good in promoting these assets. I think the destinations we have on offer are ideal for international tourists, if people can access them and discover them.</td>
<td>5</td>
</tr>
<tr>
<td>I mean getting to and from Piha for example, there is no scheduled service, there hasn’t been for some time. You can’t get to Arataki visitor centre in the Waitakere Ranges’.</td>
<td>9</td>
</tr>
<tr>
<td>Absolutely, people will go there if it is achievable and accessible. I don’t have any question that they would do it. Our West Coast features heavily on our shore excursion programmes that we put together, it’s a very high rating experience, but again doing a tour is not for everyone.</td>
<td>2</td>
</tr>
<tr>
<td>There are a lot of people that want to go to the Gannet colony, and that’s not far at all, but unless they have a car there is currently no alternative.</td>
<td>8</td>
</tr>
</tbody>
</table>

In order to ensure visitors want to stay longer in the region, transport options other than the car must be provided for. The Waitakere Ranges are used as an example, but Key Informant 11 mentioned the desire for people to reach Wineries out in Kumeu, or visit other areas of interest such as Regional Parks. This lack of public transport connections with places of interest further highlights the lack of integration between tourism and transport planning as identified by Law (2002). With the identification that tourism must become a leader in reducing vehicle emissions; to ensure visitors to Auckland have the ability to use sustainable modes, according to Thompson (2004) “the available public transport must supply to cater for the visitor needs” (Thompson, 2004: 2).
### 6.1.10 Accessibility and Positive Word of Mouth Referrals

The importance of good experiences is noted in tourism literature as a powerful promotional tool. Positive experiences not only lead into repeat visitations, but word of mouth referrals also informally link potential travellers to a destination (Reid and Reid, 1993). The advent of the internet has further increased this powerful marketing tool by allowing potential customers to extensively review a destination prior to arrival (Litvin et al., 2008). Morgan et al., (2003) described the targeted traveller to New Zealand as being highly computer literate and frequently use the internet as a means of communicating and portraying experiences. The ‘New Zealand Tourism Strategy, 2015’ noted the importance of interactive travellers, stating that they represent a 35-50 per cent share of the new emerging markets from India and China.

Albalate and Bel (2010) pointed out that an inefficient and inconvenient public transport network can damage the reputation of the city as a tourist destination. Similarly, in the 2002 study by Avgoustis and Achana, transportation services were identified as having an ‘above average’ ability to influence destination choice. Key Informant interviews also highlighted the negative impacts that Auckland’s current public transport network may be exerting on visitor experiences. The key informants noted that the ease of use and passenger experiences will in part determine their perception of Auckland. The following table (Table 14) is a summary of the key quotations.

#### Table 14: Key informant perspectives on the negative impact transport issues are having on Auckland’s image

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>The passenger experience and the recollection of how easy it was to do stuff, determines whether and where they will come back.</td>
<td>2</td>
</tr>
<tr>
<td>I think clearly bad experiences don’t help with the reputation or perception of Auckland.</td>
<td>5</td>
</tr>
<tr>
<td>Word of mouth is a powerful tool in tourism, it all helps, positive experiences create return visits or prompt other people to visit.</td>
<td>6</td>
</tr>
</tbody>
</table>
With the availability of online information and the recognised importance of researching destinations; travel forums and web-guides will play an important role in encouraging people to visit Auckland. For cities in particular, transport is an integral part of a cities review, with particular emphasis given to public transport as a means of getting around. Websites such as trip-advisor and Lonely Planet not only review transportation networks, but online users offer feedback. When comparing Auckland against both case study cities of Singapore and San Francisco, considerable differences prevail, most notably the differences in public transport provision. The public transport networks in both case study cities are of a much higher level and quality. Travel websites therefore suggest to tourists to stay away from private cars and rely instead on public transport. However, Auckland is not a transit city; with Auckland planned around the needs of the automobile with the subsequent neglect of public transit. This is expressed in earnest on the Lonely Planet website:

Due to rampant privatisation during the 1980s, Auckland’s public transport system is run by a hodgepodge of different operators, none of which seem to co-operate. As a result there are few integrated public transport passes. The Auckland Regional Council is trying to sort out the mess (Lonely Planet online, 2011).

Key Informants believed negative reviews would play a role in determining peoples travel movements within New Zealand. They felt these reviews of Auckland’s transport in particular may discourage people from visiting Auckland. With the ability to create return visitations, accessibility will play an important role in determining the positive perceptions required for Auckland. The following table, (Table 15) is a summary of key informant opinions on the impacts negative reviews could be administering on Auckland.
Table 15: Key Informant perspectives on the negative impact reviews may have on Auckland’s visitor economy

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information is so available these days; there is no doubt that people research areas before they visit them. If the reviews are negatively written, I have little doubt that this affects people’s itineraries.</td>
<td>1</td>
</tr>
<tr>
<td>I just surmise that, people want to keep away from the city as much as possible, certainly if they do any research on the internet, they will read about the problems of traffic congestion and lack of transport options.</td>
<td>6</td>
</tr>
<tr>
<td>There’s lots of anecdotal evidence which suggests that tourists, particularly Europeans are horrified when they turn up in Auckland, they basically have to get a cab into Auckland. Some of the more naive tourists catch the airport bus. I have come across tourists that are particularly horrified with our bus fleet.</td>
<td>3</td>
</tr>
</tbody>
</table>

It is not just important for Auckland, but as New Zealand’s main gateway that the first impressions are good. Key Informant 9 and 5 mentioned this lack of public transport would have an immediate impact on people’s impressions of New Zealand: “the thing that would strike me as a tourist arriving in this country would be how incredibly car based and car orientated Auckland is” (Key Informant 9). A key problem identified by Morgan et al. (2003) was the challenge for destination marketers to make the destination brand live, so that visitors experiences matched the promoted material.

The results of this thesis seem to back up the findings of the Auckland regional Council study of 2009: “concerns voiced by industry stakeholders, regarding the concern of the large aviation footprint, and that the success of Auckland will depend on the perceived environmental friendliness of a New Zealand destination relative to other destinations” (ARC, 2009b: 24). With the identification that tourism must become more sustainable, and New Zealand’s marketing brand consisting of ‘clean and green’ experiences of traffic, pollution and congestion is not going to have positive outcomes.
6.1.11 Objective One Summary

This section represents the results in relation to Objective One, with these findings flowing in a linear progression to create the basis of understanding for Objective two. This section has identified the need for sustainable transportation, and the important role such solutions will have in achieving the desired goals of the New Zealand tourism industry. There is a significant demand for public transport, with the understanding that incoming visitors are becoming more eco-conscious, coupled with the large and predicted growth of tourists that are deemed to be captive public transport users. The importance of public transport for urban destination development has seemingly been overlooked in relation to tourism transportation literature. However, this research has identified the increasingly important role that public transportation will have to play to assist the desired growth of Auckland’s visitor economy.

The recognition by key informants that the current inaccessibility is limiting the amount of time visitors are staying in the region supports comparative studies in overseas literature. Negative externalities of car dependence have also been shown to adversely affect the visitor friendliness of Auckland, further reducing the ability for Auckland to grow more quickly as a visitor destination. Key informants also believe that such negative externalities had the ability to undermine Tourism New Zealand’s 100% pure branding. The following chapter builds on this need, by exploring the needs of various tourism sub-sectors of Auckland, which key informants deemed more reliant on public transport.
6.2 Objective Two

Are there specific sectors of Auckland’s tourism industry that have an enhanced requirement for public transport infrastructure?

This research objective seeks to identify any sub-sectors of Auckland’s tourism industry that may have an increased need for public transportation. This was primarily investigated through key informant interviews, self observations and self orientated research. There was a distinct lack of literature, which could be readily identified, so the findings of this objective are considered unique to this research. The methodological framework had provided flexibility surrounding the ability to omit the Rugby World Cup into the results, as this event was running simultaneously. This objective seeks to build on the identified requirements needed for public transport investment as highlighted previously under Objective One. Through this research two sub-sectors of Auckland’s tourism industry were identified as having a heightened connection and requirement for public transport infrastructure. These sub-sectors will be further discussed individually in the following sections, before the section is concluded with a summary of findings.

6.2.1 Large Scale Sporting Events

Large scale sporting events, more commonly referred to in tourism literature as hallmark events or mega events (Getz, 1991) are becoming an increasingly popular sector for attracting visitors to a cities, increasing visitor expenditure and prompting return visits (Delpy, 1998). A current example is the Rugby World Cup (RWC), through which Auckland is hosting 14 games between Eden Park and North Harbour Stadium. Eden Park, a stadium of 60,000 is situated within close proximity to the Kingsland rail station on the Western train line, and the neighbouring arterial, Sandringham Road, is serviced by buses. There was a comprehensive transport plan set up before the RWC commenced highlighting the need to cater for the increased peak load demands, crowd control and information provision.
Chapter Six: Results and Discussion

The RWC was used as a catalyst for investment into public transport, with real-time information provision and the upgrading of platforms and stations. There were special event buses and increased train provisions going to Kingsland Station. Even with this investment Key Informant 1 was concerned that the infrastructure may not be able to cope: “I think the Rugby World Cup has been great, it has prompted much needed investment into a network that was once going to be canned, however, I am a bit sceptical as to whether the network will indeed be up to scratch, but I guess we will have to wait and see won’t we?” (Key Informant 1). This remark by Key Informant 1 seems almost inconsequential in relation to the public transport failings on the opening night of the Rugby World Cup.

6.2.2 Opening Night Transport Chaos

On Friday the 9 September 2011 the Auckland waterfront held a large fireworks display as part of the RWC opening celebrations. The Council had urged people to use public transport as a means of reaching the CBD. However, the contingency plans in place had only planned for a possible 100,000 attendees, realistic figures of the crowd numbers were estimated at around double this figure (Moore, 2011). This large crowd seemingly overran the downtown area, and indeed Auckland’s public transport network. There were significant problems witnessed on the ferry and train networks. These problems were not the fault of any organisational body in charge of running the trains or ferries – Veolia and Fullers – instead, the problems were put down primarily to the increased crowd size. However, the ageing infrastructure, overcrowding and the inability to increase services were all significant factors to the rail networks collapse. In response to the transport failings an independent report was commissioned.

The overloaded trains were running at reduced speeds, with some stopped entirely as passengers pressed the emergency brake buttons. There was a level of uncertainty to whether these instances were an act of malicious activity or were from the need of passengers to alert the operator to release heat in the poorly cooled trains. The inflexibility of the double tracked network created
severe backlogs, affecting the subsequent services. Furthermore, the Britomart Station in downtown Auckland experienced significant delays and overcrowding (Moore, 2011: 4). The overcrowding of Britomart and train carriages was further compounded by the lack of adequate announcements, both at stations and on trains which “tended to heighten tension and anxiety” (Moore, 2011: 5).

The report noted physical limitations of the Britomart Station, in particular the ‘dead end’ played a significant role in the capacity constraints, noting that “with a through station more frequent services could have operated by performing a dual role of both bringing passengers into the city before heading out to Kingsland thereby avoiding the need to change trains at Britomart” (Moore, 2011: 5). The report concluded the prognosis of the rail failing by stating “it is almost certain that the levels of rail service delays experienced on 9 September would not have been so severe with a through link station” (Moore, 2011: 5).

Buses, coped better then the rail network, however, on almost all routes the buses were unable to cope with the extra patronage, particularly at stops closer to town. Again, a lack of information provided to people waiting at bus stops was deemed unacceptable by many. This shutdown of ferry services was not caused by inadequate infrastructure, instead a lack of comprehensive crowd control.

6.2.3 Ramifications of the Opening Night

The night of the 17 September 2011, Auckland faced its second test, and passed with no issues. However, an article on Sunday 18 September 2011 by the Herald titled ‘And now the trains are bare’ raised some very important issues. It stated that although, this time, the trains were ready, people resorted back to the car: “The Herald on Sunday polled 100 fans as they turned up for the game and found a mere 22 took the train to Eden Park. Almost a third had changed their travel plans after the disastrous RWC opening night - this time, more than half came by road” (New Zealand Herald online, 2011).

This somewhat undermined a key element of the tournaments legacy, “making public transport a habit for Aucklanders” (Auckland Regional Steering Group for
Rugby World Cup 2011, 2009: 4). The legacy was going to be provided by increased investment, integrated match ticketing and a regional wide communications campaign that was going "to deliver a public transport service that exceeds expectations and leaves a lasting positive impression on Aucklanders" (Auckland Regional Steering Group for Rugby World Cup 2011, 2009: 4). It would seem from the Herald poll results and indeed the numerous online forums, that if anything the transport failings have further entrenched negative connotations towards Auckland’s public transport. Key Informant 5 raised this point stating that public transport needs an attitudinal change, noting the RWC as a prime target however; it would seem that this opportunity was lost.

For many it may have been the first time using Auckland’s public transport, thus, their negative experience will not help in the overall aim, and the need to reduce car dependence. The legacies of large events are becoming more commonplace in deciding the host location, with environmental impacts seeming to hold the largest waiting. The 2006 Soccer World Cup was praised as the first ‘green games’ with 75% of people attending matches via sustainable modes, and financial offsets were made to make the games carbon neutral (Fifa online, 2011).

6.2.4 The Drive to Hold other Large Scale Sporting Events

There has been a recent announcement by Central Government that they are proposing to bid for the hosting rights for the 2022 Commonwealth Games. This had been announced on the back of the perceived success of the RWC, with the tournament proving New Zealand can hold successful large scale sporting events (Radio New Zealand online, 2011). However, given the transportation problems encountered, the researcher sought to identify the weighting, if any, given to public transport provision by the Commonwealth Games Federation, the entity responsible for choosing the host city rights.
6.2.5 The need for public transport in large sporting events

In the ‘Candidate City Manual’ for the 2014 Commonwealth Games, one of the largest factors that must be covered within a city’s proposal is public transport provision, stating that “one of the keys to a successful Commonwealth Games is an efficient, safe and reliable public transport system” (Commonwealth Games Federation, 2005: 130). Particular emphasis was given to the efficiency and travel times from the airport to destinations of accommodation and areas of games infrastructure (stadiums, swimming centres etc). The proposal also had to include the proportion of the fleet that was low emission compatible and the mode share percentage of public transport journeys in relation to all motorised journeys in 2007 and 2014 from the city and region (Commonwealth Games Federation, 2005: 135). The bid for the 2014 games also had to obtain a comprehensive sustainability plan, with sustainable modes of transport a particular area of concern.

In the ‘2014 Commonwealth Games Evaluation report’ that considered the two host cities, Abuja in Nigeria and Glasgow in Scotland; notable weighting was given on the required public transport infrastructure. In fact the lack of adequate infrastructure, and the “significant investment” required was a key concern identified within Abuja’s bid, this concerned the committee stating “the city may not meet the required standard for Commonwealth Games competition” (Commonwealth Games Federation, 2007: 37). This statement was made even though Abuja had made commitments to extensive upgrades, with a proposed 66km of bus rapid transit service and extensions to the rail network, including a connection to the airport (Commonwealth Games Federation, 2007: 48).

In the end Glasgow was awarded the hosting rights, thus, Glasgow is used as a basis to determine whether Auckland has the infrastructural base required to host a Commonwealth Games. Glasgow has an extensive network of public transport, the report noted “Glasgow has, over many years of investment developed one of the most extensive public transport systems in Europe” (Commonwealth Games Federation, 2007: 66). In contrast to Auckland’s car dominated mode share, 60% of Glaswegians use public transport to access work,
through which the committee believed that Glasgow had the ability to cater for the estimated increase in visitors. The report applauded the well connected venues and noted an important part of the Glasgow proposal - the transport plan had accommodated 100% of spectator movements by public transport (Commonwealth Games Federation, 2007: 98).

For many cities, large scale sporting events are being encouraged and explored as a means of promoting visitations, increasing income and marketing the city. There seems to be a considerable drive for Auckland to become a sporting destination, however, as this section has proven, large scale sporting events are very much reliant on public transportation. The failings of the RWC opening night highlights the need for increased investment, such negative impacts will not be easily overlooked by future entities deciding upon host city rights. The emphasis applied by the Commonwealth Games Federation on public transport would further suggest that if Auckland is serious about becoming an event destination, considerable investment must be made to ensure enhanced accessibility, and reduce the potential for any transport failings to occur.

6.2.6 The Cruise Ship Industry

New Zealand is already benefiting greatly from the substantial increase in visiting cruise ships. In the 2010/2011 season, cruise passengers contributed $305.4m directly to the economy, whilst sustaining the equivalent of 3,606 jobs (Market Economics Ltd, 2010: 1). The report noted that the cruise ship industry is focused around Auckland with a direct spend of $177.4m (Market Economics Ltd, 2010: 1). Key informant 2 identified New Zealand as “an ideal destination for cruise ships, as the key ports are all just within an overnight sail within each other” (Key Informant 2). Auckland is enhanced as a cruise port due to its location as a transport hub, where passengers either disembark or join a cruise, with the proximity to Auckland International Airport. Key Informant 2 identifies the two types of cruise ship ‘calls’ that regularly visit Auckland:
There are two types of calls to Auckland, turnarounds where there’s passenger exchange - so one voyage is ending and a new voyage is starting - and then there’s transit calls where there is little to no passenger exchange, and its coming into the port as a visit and the guests are going sightseeing. For both instances there is certainly a great need for decent public transport infrastructure (Key Informant 2).

6.2.7 Infrastructural Requirements of the Cruise Ship Industry

Cruise ship passengers are completely reliant on the destinations infrastructure, Key Informant 2 identified the two alternatives passengers have at the destination. The first is an organised shore excursion tour, whilst the other option is self exploration of various attractions and sights. Key Informant 2 mentioned that “on a transit call, only probably half of the passengers will take an organised shore excursion, so with a large ship of 2500 people, there might be 1300-1400 people who want to get around and see stuff” (Key Informant 2). With a 14% annual growth rate of the cruise industry since 1996 and predictions that “this trend is likely to continue into the future” (Market Economics Ltd, 2010: 2); the necessary infrastructure is required to ensure the capitalisation of this growing market. Key Informant 2 noted the great natural attributes of Auckland as a good start; however, the Key Informant continually mentioned that infrastructure is what makes a destination cruise friendly. The Key Informant went on to mention that the current lack of adequate infrastructure was already starting to restrict the number of possible cruises, and that this lack of infrastructure will ultimately lead to the ‘levelling off’ of the cruise ship industry’s growth in Auckland, the following table (Table 16) is a summary of Key Informant opinions:
Table 16: Key informant quotations regarding the need for public transport to ensure the growth of cruise tourism

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have had all this fantastic growth, people like to think it's going to continue to grow, but we know it is going to level off, and the major reason is the lack of infrastructure. Auckland’s current network is already restricting the number of cruises.</td>
<td>2</td>
</tr>
<tr>
<td>We are going to have a lot more people arriving on cruise ships, so the critical connection between the CBD and the airport needs addressing, priority measures to ensure the certainty of the travel time is absolutely critical.</td>
<td>8</td>
</tr>
<tr>
<td>Cruise friendliness is about the right infrastructure, this is where Auckland is lagging badly... That is the big thing about cruise ship tourism it is internationally transferable, so if you are not cruise friendly pretty quickly they move on.</td>
<td>2</td>
</tr>
</tbody>
</table>

A key requirement for the cruise industry is a cruise ship terminal, which has been identified and addressed in the draft Waterfront Plan. Besides the obvious need for the terminal, the secondary features consist of transport and attractions. Wayfinding and information provision is also of heightened importance for passengers wanting to explore Auckland on public transport. Dinkla (2009) noted the importance of good accessibility to international airports, to increase the competitiveness of a turnaround port (Dinkla 2009). This need was also identified by Key Informants 2 and 8, with the desire to create certainty in the airport services.

6.2.8 International transferability of the Cruise Ship Industry

The final point mentioned by Key Informant 2 in Table 16, above, is an interesting point and something that was not discovered in the literature review. The international transferability relates to the importance of having good experiences. Cruise liners, according to Key Informant 2 continually research their customers on cruises. The Informant also said that cruise owners assess the viability of ports: “they look at Lonely Planet, photo-tours, trip-advisor and they look at all the touch points of what gives a city or a destination a great rating, and
great public transport infrastructure is right at the top of the list” (Key Informant 2). Negative perceptions housed against a certain port will not only have negative implications for that destination but also for the entire cruise.

### 6.2.9 Changing Demographics and the Growth of Cruise Tourism

For the past decade cruise ship tourism has been referred to as the fastest growing segment of tourism, the industry’s newfound affordability has led to this tenfold increase in passengers over the last 30 years (Vogel 2011). This change in the industry was also mentioned by both Key Informants 2 and 7. This means that on top of the historical elderly retired clientele, there are younger passengers who Key Informant 7 mentioned require “economic alternatives to expensive tours” (Key Informant 7).

With the rapid growth of the cruise ship industry, Auckland must ensure that it provides the required infrastructure to ensure the competitiveness is maintained in an internationally transferable industry. Key Informant interviews have highlighted the lack of infrastructure as a key concern; without addressing some of these identified problems, the industry will not continue to grow, thus, potential revenue for Auckland and New Zealand could be lost.

### 6.2.10 Summary of Section

This objective sought to investigate if there were any sub-sectors of Auckland’s visitor economy that had a heightened requirement for public transport infrastructure. This research has highlighted the need for increased public transport provisions in regards to the cruise industry and large sporting events. Although no sub-sectors were obviously identified in the examined literature, this research has found strong connections between public transport and two important components of urban visitor economies.

The cruise industry is largely dependent on public transport provision, and it is considered a critical component in making a port ‘cruise friendly’. In regards to large sporting events, it would seem that an increasing amount of weighting is
given to the perceived sustainability of the event and host city, with public transport one of the most essential factors. The need for enhanced mobility between the airport and CBD is a key need for both sectors. It could be presumed that without investment Auckland will struggle to achieve the full potential of these industries, the potential loss of revenue, although unknown, could warrant further investigation in an alternative study.

With the identification of the overall need, the following chapter will investigate the key elements of a visitor friendly network, before investigating the ability for planning interventions and practical solutions to enhance the visitor viability of the current public transport network.
6.3 Objective Three

What makes a visitor friendly network? Is Auckland public transport network visitor friendly? If not what can be done to improve it?

This objective seeks to identify what makes a public transport network visitor friendly. The basis of this chapter was identified within the examined literature and was built on through the case study chapter. Key Informant interviews localise the findings into the Auckland context. This section firstly identifies the key components of a visitor friendly network; once these components are identified, they are used as a framework to assess the current Auckland network. The final element of this objective relates to finding solutions to amend or mitigate some of the identified problems; the case study chapter will be drawn upon to help shape any recommendations that may arise. This objective furthers the research by identifying how Auckland can improve the current, and future public transport network.

6.3.1 What makes visitor friendly public transport?

Creating a more visitor friendly network is understood to remove barriers restricting not only tourist usage but has been identified to encourage more resident movements as well. This has been identified by Dziekan (2008) and was seemingly backed up by Key Informants 2, 9 and 11: “what is good for a resident is exemplified for a visitor, as they don’t have any background knowledge” (Key Informant 11). By using the visitor requirements as a benchmark it provides a sound basis to assess the current viability of Auckland’s public transport network. The following section summarises the key components that create visitor friendly public transport.

Ease of Use

Ease of use, is an integral part in creating positive experiences from public transport (Stradling, 2002; Dickinson and Robbins, 2007; Thompson and Schofield, 2007). The ease of use of public transport was also identified through key informant interviews as being a critical component of tourism related
transit. Stradling (2002) identified three components that collectively form the overall ease of public transport use:

- **Physical Effort** - The required physical activity on a public transport journey, how far the end or start destination is from transport connections.
- **Cognitive effort** - The amount of intellectual activity required, information gathering, route planning and navigational requirements.
- **Affective effort** - Associated with delays, safety concerns or any other negative incidences. This was described by Straddling as the ‘emotional’ impact of a service.

**Simplicity**

Simplicity, was a component of public transport that was continually cited throughout key informant interviews as being critical in ensuring positive experiences. Simplicity is closely linked to the convenience of a service and can impact adversely on the physical, cognitive and active effort required by visitors using a public transport service. The simplicity requirements cited varied from simplified schematic diagrams of the public transport networks, uncomplicated ticketing systems or the need to provide adequate information, simplified towards the visitor needs (Thompson, 2007). Reducing the effort involved will ultimately lead to increased accessibility, increased patronage by visitors and positive experiences (Thompson, 2004; Dickinson and Robbins, 2007).

**Cost and Ticketing**

The cost of a cities public transport network is of importance to the visitor; particularly for the Free Independent Traveller’s. The cost of a service was also identified by Lew and McKercher (2006) as being an important part of perceived tourist attractiveness. Ticketing must be provided in an easy and understandable manner. Modal integration is considered an important aspect of tourism ticketing. Lew and McKercher (2006) noted that there is a tendency by some cities to overprice perceived tourism services. Key informant 2 mentioned the need to provide effective transport at a reasonable price:
You know again it’s about attractiveness, and competiveness the perception by the visitor that it is a cheap and effective way of getting around is important, people want to go to a destination and see some cool stuff but they don’t want to pay heaps for the privilege (Key Informant 2).

Key Informant 7 also identified the need to provide simple ticketing, stating that people do not want to pay for each portion of the journey. With no previous knowledge, cash fares create more cognitive effort on the journey, having adverse impacts on the perceived ease of use (Dziekan, 2008). Internal accessibility of a destination according to Ruso and Van Der Berg (2002) “depends on the quality of urban transport, but also on the structure and location of terminals, on the ticketing and information services” (Russo and Van Der Borg, 2002: 634). Failure to provide accessible ticketing could create a presumption that the public transport is too difficult to use, and visitors may be deterred from using the network (Dickinson and Robbins, 2007).

**Certainty**

Key informant interviews and findings from the literature review suggest that providing certainty with public transport travel is a necessary provision for positive visitor experiences (Bieger, 2001; Friman and Gärling, 2001). Both Key Informants 7 and 5 identified the importance of providing certainty with travel times, noting that visitors require certainty to plan their day. Scheduled services give the visitor flexibility to work around. Key Informant 7 noted that high frequencies are the ideal outcome: “I think the most important part of any tourism trip is certainty, visitors need certainty, high frequencies are the ideal outcome” (Key Informant 7). Higher frequencies reduce the cognitive effort, further aiding in the perceived ease of use.

The overall certainty of a service is provided for by a combination of a frequency and punctuality (Friman and Gärling, 2001). In order to deliver certainty the services must be punctual. Punctuality refers to a service being consistent with the scheduled timetable. The punctuality of a service has been identified as impacting on visitor preferences towards a mode of transport (Bieger, 2001).
Kinsella and Caulfield (2011) identified the heightened importance newcomers place on the reliability of a service.

**Accessibility**

The accessibility offered by a transport network is a direct determinant in the amount of physical effort required to reach areas of visitor appeal or need. Key Informant 6 mentioned that alongside the frequency of a service, planners must consider the locations serviced: “frequency of travel is important, but you also have to look at the point of destination required” (Key Informant 6). The ability or inability of cities to incorporate the needs of visitors will, in part, determine the visitor friendliness. Thompson et al. 2002 identified accessibility to attractions as a key need. Key areas that require public transport services such as the airport to CBD are also identified in literature (Law, 2002). Key Informant 5 highlighted the importance of accessibility in regards to tourism:

If I had a piece of ground and I started from scratch, what would I do, well being in tourism, I would find where my airport is going to be, I would find where my CBD is going to be and where the tourism resources would likely be and I would create transport linkages. The accessibility offered by transportation is key to everything (Key Informant 5).

Accessibility of any attraction is still determined by the information provision. Without public information combining public transport information with tourist attractions, this cannot occur. With the understanding that transport is a fundamental requirement for tourism to occur (Page, 2005) cities need to provide transport services that meet the needs of the visitor market.

**Attractiveness**

Attractiveness in the most basic sense, is the understanding that tourism transport can act as both a mode of transport and an attractant in its own right (Halsall, 1982; Law, 2002; Robbins, 2003; Lumsdon and Page, 2004; Rhoden, 2006). Tourism travel is often associated with the amenities on offer; Rhoden (2006) stated that positive tourism experiences result predominantly through visual stimulation. Key Informant 6 identified comfort of a service as directly
relating to the attractiveness. Key Informant 11 also mentioned that in some instances the speed of the service is important for it to be attractive.

The perceived safety of the service, and provisions offered at stations also corresponds to the attractiveness of the service (Lumsdon 2006; Lumsdon et al., 2006; Thompson and Schofield, 2007). Key Informant 7 stated that “wind blown, poorly sheltered bus stops are not what tourists want” (Key Informant 7). Good drivers have also been identified as important factors in creating positive visitor experiences on public transport (Friman and Gärling, 2001; Lumsdon et al., 2006; Guiver et al., 2007). Key Informant 7 also mentioned drivers as a “critical element in tourism bus transport” (Key Informant 7).

The combination of all these variables together creates the overall perception of attractiveness. Considerable differences are evident between what variables make a service attractive for different reasons, speed of the service may be more important for the airport CBD connection, however, speed of a tram or ferry ride is much less influential, instead the visual amenities on offer would create the attraction to the service.

**Information Provision**

Information provision plays an integral role in successful tourism orientated networks, and this point was extensively mentioned in key informant interviews and in tourism literature (Jansen-Verbeke, 1986; Balcombe and Vance, 1998; Hine and Scott, 2000; Thompson, 2004; Lumsdon, 2006; Lumsdon et al., 2006). The information requirements of a visitor are considerably different from residents. Thompson (2004) identified the need for information before arriving at the destination, there is also a desire to provide multilingual information, integration between visitor and public transport information is also believed to be valued by the tourist (Thompson, 2004: 2). Key Informant 5 also identified the need to integrate transit and visitor information together:
The information provided to the traveller needs to be easy to understand, incorporate accommodation, iconic sights and the important transport routes, this integration of information is critical in ensuring the ease of access tourists look for (Key Informant 5).

Information provision also includes real-time updates at public transport stops and onboard information. Such onboard information identifies the next stops, connecting services and upcoming attractions. With the newfound importance of information communication technologies (Thompson, 2004; Buhalis and Law, 2008) in tourism and indeed public transport, increasingly visitors are turning to online journey planners that can be either accessed via Smartphone’s or computers. Wayfinding is another important tool for visitors to a city. Supplying accessible information when visitors arrive will ensure they find transport services, quickly and efficiently, failure to do so will undoubtedly increase the required cognitive effort.

### 6.3.2 Visitor Requirement Summary

Simplicity and ease of use are two areas critical to visitor movements on public transport. High frequencies and punctual services have been described as key components to quality public transportation. With no prior knowledge visitors are more reliant on information provision than residents of Auckland. Cost and ease of ticketing was of heightened importance. Visitors require accessibility to attractions, areas of visitor appeal, accommodation and the airport. Transport for visitors commonly consists of a two-fold purpose, movements from A to B, and importantly the journey is a form of leisure travel, primarily gained though visual stimulation. These identified requirements are used to benchmark Auckland’s current public transport network in the following section.

### 6.3.3 Is Auckland’s public transport network visitor friendly? What can be done to improve it?

The following is an investigation into the visitor friendliness of Auckland’s current public transport network, assessed against the guidelines identified above. This section also includes some ideas that could improve the system; such improvements will help meet the required needs of a public transport provision
Chapter Six: Results and Discussion

in Auckland as identified in objectives one and two, whilst supplementing the desire to grow Auckland's visitor economy.

6.3.4 Pricing

In a recent study by consultants Ian Wallis Associates and McCormick Rankin Cagney, Auckland was found to have the most expensive public transport system of 13 other comparable cities (Auckland Transport, 2011). The high cost that is passed on to the user and Council is created through a myriad of problems. The lack of collaboration between privatised companies, the lack of integration between the services and the underlying layout of Auckland's bus network as described by Mees, et al., (2010) to be a “very dense and complex network consisting of many, mainly low-volume, lines” (Mees et al., 2010: 30).

The tendency by some cities to overprice perceived tourism services as mentioned by Lew and McKercher (2006) seems to be problematic in Auckland. The Wynyard tram and Airbus are two prime examples. Key Informant 9 identified this problem and questioned the logic behind such pricing schemes: “Wouldn’t you get more people using it, if it was priced as an ordinary journey? The question is do we see the airport to CBD as an integral part of the public transport network? If so, then the cost shouldn’t be exemplified” (Key Informant 9).

The Wynyard tram in particular has been primarily built to attract people into the downtown, thus creating positive cash flows to nearby businesses. However, charging visitors $10 for a glorified ride around an old silo site seems not only expensive, but counterproductive, as the tram may not actually maintain people in the downtown area. In contrast the MOTAT tram costs users $1, whilst Melbourne’s visitor trams offer free rides on the presumption that it attracts visitors to the main shopping precincts of the city.

**Tourism Specific Multi Day, Multi Modal Transport Pass**

With the identification that Auckland’s public transport network is overpriced coupled with the underlying desire to expand the visitor market, providing cheaper travel to persuade people to stay longer in the region is a potential
solution. A method used by many international cities is through the promotion of a multi day, multi modal tourism pass. These tourist passes offer heavily discounted rates, in the notion that by keeping visitors within a destination, and providing the required accessibility, the city will profit from increased revenue. The following quote by Key Informant 7 highlights the positive impacts multi day transit passes can have:

Our two day pass has been great, with a significant uptake, it is also not only just good for our company, but the region, as it encourages people to stay in Auckland for a longer period of time, so cafes, restaurants, attractions all benefit from this increased length of stay from our patrons (Key Informant 7).

The potential in Auckland

Both case study cities had recognised this potential and had deployed tourism passes. Key Informants held a strong opinion that a similarly styled pass would have positive benefits to the Auckland region. A tourist pass was mentioned by Key Informant 6 as a value adding resource, whilst Key Informant 2 noted the success of tourism passes in other cities. There was recognition that the pass would be most beneficial if it covered all modes, and gave people access to visitor areas, such as the Hauraki Gulf Islands. Dickinson and Robbins (2007) stated that visitors were put off using public transport as it was perceived to be difficult to use. Key Informant 9 also noted that such a pass provides flexibility and ease of travel which would alleviate some of the concerns raised by Dickinson and Robbins (2007). The following table (Table 17) is a summary of key informant opinions towards a tourism specific transit pass.
Table 17: Key informant viewpoints towards the viability of a tourism pass

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>A pass to me would encourage people to stay longer in the city, especially one that would get you out to the islands and get you in from the airport.</td>
<td>5</td>
</tr>
<tr>
<td>But yes they are always an attraction, any added value thing like that is an attraction to a destination.</td>
<td>6</td>
</tr>
<tr>
<td>Any destination we see that has that type of concept does well out of it. If it’s a universal thing with ferries, rail and buses then all the better.</td>
<td>2</td>
</tr>
<tr>
<td>I have gone to a place, like Sydney so, I will buy one of those cards, I will prefer to buy a daily or weekly pass knowing that it is not going to cost me a cent more than that, and I can use it as much or as little as I like, it gives you flexibility.</td>
<td>9</td>
</tr>
<tr>
<td>Look at other tourism cities; they all have visitor passes, why? Because they work, it is a cheap means of transport that can keep people in the region for an extended period of time.</td>
<td>1</td>
</tr>
</tbody>
</table>

Rugby World Cup Visitor A-Pass

For a limited time during the RWC a special Hop card has been made for visitors to Auckland, the A-PASS is a collaborative effort between Auckland Transport and Auckland Economic Events and Tourism Limited. For $15 a day, the A-PASS will give users access to almost all Auckland buses, trains and ferries and discounts at eight of Auckland’s favourite attractions. This integration of transit and key attractions is also prevalent in other cities around the world, including both San Francisco and Singapore. In San Francisco the CityPASS offers visitors a combination of the seven day Muni passport; with five or six of the most popular attractions. The CityPASS is offered in 10 other cities across America, so a similar network of passes could be extended throughout New Zealand’s urban areas.

The A-PASS covers the entire Auckland region, from Warkworth in the North to Pukekohe in the South. Key Informant 9 stated that the pass did cover important tourist routes: “The pass doesn’t include the airport bus, or some ferries, but it is a positive start. However, there is no intention at the moment to extend this offer” (Key Informant 9). There needs to be some thought and consideration given to the inclusion of these services into any future versions of a tourist pass, perhaps
even with a small cost increase. This pass does not offer any economic incentive to purchase an extended period pass. It would therefore be recommended that an extended pass is offered at a discounted rate similar to the San Francisco Muni passport. This would encourage people to stay longer in Auckland, generating significant benefits for the regional economy.

**New Zealand Public Transport Pass**

Conceivably, with the tourism industries desire to introduce initiatives that will reduce carbon emissions and increase the energy efficiency of domestic transport. A New Zealand wide tourism pass may give tourists sustainable transport solutions and provide an effective promotional tool for New Zealand tourism. The New Zealand Transport Agency recently identified that there will be an introduction of a National Integrated Ticketing Programme for passenger transport. This will mean that regional smartcard’s will have to adhere to certain rules and regulations that will allow all smart cards to be used nationally (New Zealand Transport Authority, 2011). This acknowledgment by the NZTA is a good step forward, as there has been continual speculation and concern over the inability to use regional smartcards in different areas.

With the newfound ability, that could enable smartcards to be nationally applicable, the possibility of creating a national tourism pass, becomes more plausible. This could initially just cover urban transport networks. It is recommended that investigation should be made into the potential for this, including the desired pricing, and potential increments in lengths such passes could be offered for. There could also be potential to create a more comprehensive pass, providing both regional and interregional public transportation. This would require the integration between either Kiwirail for train services or private bus operator(s), such as Intercity. This will involve various stakeholders, and will most probably need coordination from Regional Authorities and the Ministry of Economic Development. With it being noted that visitors are becoming more eco-sensitive with their decisions on how they are travelling, providing such a pass could be a useful marketing tool for enhancing
Tourism New Zealand’s desired sustainable solutions, and the promotion of the clean, green branding New Zealand is renowned for.

6.3.5 Modal Integration

The legislative structure of public transport in Auckland promotes competition between private companies. This competition by multiple bus operators has meant that private companies have their own motivations alongside the desire of the regulating authority (Van Der Veer, 2002). Currently, there is very little integration between modes in Auckland, with it being said that in some instances buses and trains work against each other on paralleling routes (Mees et al., 2010).

The introduction of the MAXX brand was to create the impression of integration, with the entire network unified under a single brand. This initiative must be noted as being a good start, with the amalgamation creating noticeable improvements. However, a key concern that still exists is the lack of fare integration between competitors; as each company has their own fare system. This has created difficulties with visitors trying to use more than ‘one operating companies’ buses. This situation certainly does not help with the ease of use; especially as visitors have no background knowledge into what routes are covered by different operators. The advent of the Hop Smartcard will assist in eradicating these long standing issues, thus, tourists can move between networks in an easy and simplified manner. However, a full network wide integration and zone based fare structure is still a long way off.

The next important part of creating an integrated network is through the timing of connecting services. This timing is particularly important in cities where public transport frequencies are not considered high enough to warrant no timetabling. Using the Northern Busway as an example, the timetabling of connecting services are not interconnected, the feeder services do not run the same high frequencies as the RTN line. These connecting services are not pulse timetabled either. Pulse timetabling refers to connecting two routes via time integration to allow for a seamless transfer. Key Informants 2 and 7 mentioned the need to align services; Key Informant 2 mentioned that if the “transfer is
reasonably seamless, then people don’t have a problem with changing between services”, in fact many overseas visitors are acclimatised to such transfers. Key Informant 7 also noted that “services need to be aligned through timing over the network, having to wait at bus stops for a connecting service is not a good look and a deterrent for usage” (Key Informant 7).

It would therefore seem that currently in regards to modal integration; Auckland is rating very poorly, the progressive role out of the HOP Smartcard will in part solve the problem, however, until further patronage on the network can result in more routes running high-frequencies (10 minutes or less) there must be much more consideration given to the timing of connecting services.

6.3.6 Certainty of Auckland’s Public Transport Network

While we continually get the Herald showing us out of ten, ‘what is your experience on the rail’ for one reporter it may be a nine and the next a five. So it’s about improving certainties. This is critical for tourists; many are used to high class, high speed public transport systems, so Auckland has a lot of catching up to do (Key Informant 5).

The desired frequency increases mentioned by Key Informants, in literature and the 2010 Auckland Regional Public Transport Plan can only be achieved with increased reliability of services. Currently in Auckland, problems exist with buses running late due to traffic congestion. This is identified on the bottom of every timetable, and visitor information booklet. This does not instil confidence for a visitor, especially considering the importance placed on certainty.

The train network, on a designated route away from the traffic, still results in a very unreliable service. For example, the June reliability and punctuality figures for Auckland’s rail network showed that on average, only 86.7% of its trains arrive within 5 minutes of the scheduled arrival time. This is primarily a result of ageing rolling stock and the inflexibility of the network.

With the recent announcement that Auckland will receive brand new Spanish built electric trains, it could be presumed that the punctuality of the train network will be greatly improved. However on the flip-side, due to the current
capacity constraints of the dead end Britomart train station, frequencies of the services will reach capacity early next year, with a maximum of 21 services per hour. It is therefore essential that the capacity of the network is expanded through the provision of the Central Rail Link.

The desire to create higher frequencies is also dictated by ridership levels, increased frequencies can only be applied to routes that have high patronage that warrant further services. The provision of more bus lanes can increase reliability and certainty on the bus network, and can be implemented for relatively low costs. Without such bus lane provisions Auckland’s bus network will continue to be hampered by the unpredictability and unreliability of traffic related congestion.

6.3.7 Information Provision

Through a combination of personal observations, key Informant interviews and by assessing these findings against the two good practice case studies it is evident that Auckland has problems with the current levels of information provision. The main role of information provision as stated by Key Informant 7 is “to provide people with the right information to assist in their decisions making” (Key Informant 7).

Real Time Updates

The RWC has had positive impacts with the introduction of real time information displays at bus and trains stops and ferry terminals. As part of my observations, I noticed that the real-time electronic information signs at bus stops were not very accurate, in fact in some instances services that were scheduled to be arriving, would disappear all together. In both occasions the buses did end up arriving. With visitors not used to the unpredictability of Auckland’s bus network, it would certainly require more cognitive effort. On one occasion, observing the public transport provisions at Auckland Airport, I was witness to a group of Australian visitors who were noticeably confused with the unreliability and unpredictability of these ‘real-time’ displays.
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The system utilises GPS based software that estimates the arrival time in regards to current speed, direction and distance from destination (Vencatachellum, 2002). This should according to Vencatachellum (2002) “allow the system to predict the likely future progress of a bus along its route” (Vencatachellum, 2002: 5). In a study by Syahriah-Bachok et al., (2008) real-time information systems were considered to add value to the existing services, however, the author noted that “this will backfire if the information was inaccurate, unreliable and inconsistent” (Syahriah-Bachok et al., 2008: 276). The current system operating in Auckland needs improvement. However, the large uncertainties present on a day to day basis associated with traffic congestion and the lack of bus lanes restrict the accuracy of the system.

**Onboard Communication**

Onboard information provision is also very important for visitors on public transport networks. Auckland transport services to some extent have a degree of onboard communication, with audible and visual station announcements made on trains and in some buses. The electronic message signs in rail carriages convey pre-programmed messages as trains move past specific areas. These electronic signs do not have the ability to display live updates - that being reasons for delays or changes in scheduled destination arrival times. To the best of my knowledge buses do not offer onboard communications - connecting bus information or the location of prominent attractions in regards to stops. Key Informant 10 identified this problem, pronouncing the differences between bus travel in Auckland and London, England:

> Once you get on the bus, and this is what I don't understand about Auckland, honestly talk about over communicating “you are now going past St Marthens, if you want to get off at the national portrait gallery, please get off at the next stop” and it stops, and they talk at you constantly giving you information (Key Informant 10).

It would seem that there is a need to increase the information provision both on services and at public transport stops. Good drivers will be an important part of this information provision, with the quality of drivers being identified by Key Informant 7 and in literature, as having an important role to play. It could be
suggested that for tourism specific routes, a certain degree of extra training may be required. This could ensure bus drivers have the applicable knowledge, for example, the location of attractions or information regarding the transfers between services.

The new trains will reduce the current inabilities regarding live updates, however, it is suggested that for the bus network, that there is more thought given to providing enhanced onboard information. This would primarily be on tourism routes, or at areas with known tourist attractiveness. This could be a staged role out, with the identification that for some commuters on the network, increased voice aids may create negative connotations.

6.3.8 Wayfinding

The lack of adequate way finding was continually mentioned by most key informants. Key informants highlighted the importance of providing people with information in an accessible and easy manner. Key Informant 2 identified the lack of way finding information in the downtown area as being a significant deterrent for cruise ship passengers to use the public transport network. The following table (Table 18) summarises key informant concerns around the current level of wayfinding provision.

Table 18: Key informant perspectives in relation to the lack of Wayfinding information

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>You have to inform people how to get to where they want to go, the main bus stops, train stations, and walkable attractions. They need clear signposts and directions, reduce the thought and guessing, make it easy for the visitor.</td>
<td>7</td>
</tr>
<tr>
<td>I think we don’t do way finding well at all, I mean there is some general wayfinding in the central city, but in terms of public transport we do a little bit but it’s not comprehensive, or consistent and I would like to see us do that a lot better across the network</td>
<td>9</td>
</tr>
</tbody>
</table>
It is positive to see that the lack of adequate wayfinding has been identified in the draft Central City Master Plan, with the provision of improved public transport wayfinding a priority. This is an important step and one that is duly noted as needed within this research. However, it is also suggested that this provision of information is required in a much more consistent manner across the network. This could be started with a progressive role out at key visitor areas, until a degree of saturation can be applied throughout the region. Wayfinding will be specific for every area; therefore, areas with low visitor usage would not require such extensive information provision.

6.3.9 Route Planning

Route planning is another important need for visitors and residents alike. Giving people information on how best to get from A to B is one of the most basic principles of public transport travel. The traditional approach was to give people network maps, however, with the advancements in information technologies; route planning is increasingly connected with computing technology. In both aspects Auckland is lagging very badly, and there is certainly room for improvement. Key Informant 9 stressed the importance of simplified diagram maps, to ensure visitors can easily understand and navigate the network, Key informant 9 noted his frustration, eluding to the fact that Auckland does not do the 'basics very well':

There is this notion that you need geographical maps, but then there is the diagrammatic, schematic maps which are incredibly simple, and you cut out all the insignificant stuff, you just have the basics, but we haven’t quite nailed the basics yet (Key Informant 9).

This situation is perhaps not as bleak as Key Informant 9 points to. A simplified train diagram has been completed by MAXX. A schematic map (Figure 32) below, was produced collectively by Auckland Tourism and Auckland Transport, in time for the RWC, the map integrates central attractions with basic public transport information and reduces the complexity significantly from previous examples.
This map finds a much better balance in providing the necessary network details (bus routes, train lines) without all of Auckland’s infamous, meandering residential routes included. This map will undoubtedly have a positive impact on visitors; it will encourage them to use the network, as it highlights the most applicable routes to key areas and attractions, and presents the information in a meaningful and easily understood way. The routes identified are of higher frequencies which also aids in the simplicity of the schematic map. This mapping technique needs to be extended further over the network; as it will ensure greater ease of use for the visitor. There needs to be consideration into important routes included, such routes may offer visual stimulation, access to attractions or places of interest.

6.3.10 Information Technologies

There is a lack of online route planning information for Auckland’s public transport network; this becomes particularly evident when comparing the available resources to other internationally recognised visitor cities. There is no specific information aimed primarily at visitors on the MAXX website, however, the MAXX website does offer an online route planning function. Auckland
Transport has developed a free MAXX I-phone application that includes a version of the online Journey Planner, the Android application is also currently in development. There seems to be a reasonable drive to encourage third party applications, however, access to real-time data is not made available to private developers. This creates limitations in any attempt to progress this increasingly important segment of public transport wayfinding.

It is suggested that Auckland Transport follows the principles identified within both case studies, by actively encouraging and promoting third party applications. This can only be achieved through the provisional access to real-time data. It is believed that there is also a real chance to create a more specific tourism-orientated application, were a combination of attractions (similar to the Aucklandnz tourism application) is combined with public transport information on how best to get there. These applications are deemed appropriate to a large sector of incoming travellers, whilst transport specific applications may also encourage more residents to use public transport. Given the ageing of travellers, alternatives must always be given, thus, the humble map will still have an important role to play.

6.3.11 Integration of Tourism and Transport Information

As already mentioned there was no integration of transport and tourism attractions online; this is both evident on the MAXX website and also on Aucklandnz.com, the official tourism site of Auckland. As part of my personal observations, all information was obtained on public transport available from I-sites in Auckland. Although predominantly there was a lack of combined information linking attractions with route planning (bus numbers etc) there was one exception. The inner Link pamphlet had a comprehensive analysis of the attractions at each stop. This provision of information further identifies the target market of the Link services; however, more of this type of information is necessary. The integration of information should be encouraged; this will also help in promoting visitor specific areas or attractions to the large number of visitors without access to private modes of travel.
6.3.12 Multilingual Information Provision

The need to provide visitors with multilingual public transport information was raised in literature, stating that the inability to understand the language was a deterrent for public transport usage (Van Den Berg and Braun, 1999; Law, 2002; Lew and McKercher, 2006; Kurihara and Okamoto, 2010). Key informants questioned on the idea agreed with this need, with Key Informants 1 and 2 mirroring the positive effects identified within literature. There was a certain degree of apprehension on the issue with Key Informant 10 noting the limitations of where and how this information provision could be provided. The following table (Table 19) summarises the key informant opinions.

Table 19: Key informant perspectives on the need for multilingual information

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think whenever you give people the ability to understand what's going on in their own language; they regard that as a positive and friendly approach, information provision aids with decisions.</td>
<td>2</td>
</tr>
<tr>
<td>I think if you can provide public transport information to tourists in different languages then of course that will be beneficial, again you are removing a potential barrier for use of the service.</td>
<td>1</td>
</tr>
<tr>
<td>I think it could be beneficial in some instances, but I don’t think we would want to see all manner of languages on the bus stop timetables.</td>
<td>10</td>
</tr>
</tbody>
</table>

Key Informant 6 mentioned that in regards to normal tourism information provision, it was common place to provide alternate language publications: “A lot of tourism information is available in Chinese, Spanish, Japanese; a lot of the publications for sightseeing are printed in different languages” (Key Informant 6). Similarly it could be presumed that if it is deemed advantageous to provide multilingual tourism information the same theory could be applied to visitor usage of Auckland’s public transport network. The case study examples of Singapore and San Francisco both provided comprehensive online information in varying languages; in contrast MAXX.co.nz doesn’t have any alternative language options. This could be provided for, in a cost effective manner, and could result in
a positive impact. This may also have other benefits for residents, especially considering Auckland’s extensive multicultural makeup.

6.3.13 Accessibility Concerns

Auckland’s bus network was designed in the 1970s, according to Key Informant 9 the objective then was simply coverage. This coverage ensured everyone had access to a bus and the predominant direction of travel was from the suburbs into the CBD. This adopted design principle in Auckland is still prevalent today, and in relation to tourism movements it is considered problematic. This problem was cited by Key Informants 7 and 11 as being a particular issue for visitors, as unlike regular commuters there is not such a need to travel to and from the CBD, instead cross-town movements are their priority, especially considering the locations of prominent attractions.

The recent amendments to the Link services will help to alleviate some of these concerns raised by Key Informants. The Link buses utilise loop routes, which as described by Key Informant 8 “will be frankly, a no brainer, even a child can understand a loop” (Key Informant 8). This simplicity of the loop service was also mentioned by Key Informant 10 stating “that it joins up the dots, in being able to go across town, transport for many people is not just a linear thing, it’s more of a circular arrangement” (Key Informant 10). Key Informant 9 also identified that these services were timed to come on for the RWC, stating that “they will be immensely popular with tourists, it has the certainty involved with it, people that travel are familiar with looped services, they like them for getting around” (Key Informant 9).

The Link routes also take into consideration some of the frequented visitor attractions, the service is identified as being tourism focused. The obvious colouring and marketing is also positive, further simplifying the network, with the Link services easily identified in the ubiquitous fleet of inner city buses and on the simplified map (Figure ). There are other services that run to visitor attractions, such as Kelly Tarltons and Regional Parks, however, unlike the Link; there is no easily identifiable means of knowing that the service connects to areas of visitor attractiveness.
In order for Auckland to acquire benefits of increased visitor expenditure increasing accessibility will play an important role. The identification that there is a lack of public transport provisions to areas of interest is a primary concern. There needs to be investigation applied to the economic feasibility of extensions into areas of scenic beauty (the Waitakeres, West Coast beaches) or just better marketing of services that could play a dual role of commuting traffic integrated with the need of the visitor.

For example, the identification that visitors want to access wineries of the region; it could have positive benefits for Kumeu’s passenger network services. There are a large number of wineries situated along State Highway 16 which is already frequented by buses. It could be suggested through the implementation of bus stops at wineries, and through a promotional campaign, accessibility could be enhanced for visitors without access to private modes of transport. The commuter service would also benefit from increased ridership, with off-peak movements being frequented by visitors, thus, helping to subsidise the service.

It must be noted that although the ideal outcome would be to extend services, the volume of ridership required to make any extension feasible, is critical to ensure financial feasibility. Both Key Informants 5 and 9 identified this potential problem with the lack of patronage, particularly in the winter months. Serious thought and consideration must be given to such services, and it is suggested that such services could be trialled in the summer months. It is recommended that a trial could be arranged to coincide with a busy period of cruise ship dockings, to gauge the feasibility. This proposed accessibility will enhance other attractions or accommodation facilities within the serviced area, which would have positive impacts on their businesses.

6.3.14 Complexity of Auckland’s Bus Network

A key concern relating to visitor needs was the inability for tourists to decipher Auckland’s complex bus network. According to Key Informant 9 Auckland has close to 500 bus routes in operation. Key Informant 7 identified the complexity of Auckland’s network as a significant barrier for visitor usage, stating that “all
good bus networks in the world have one thing in common, simplicity, that is where Auckland does not do very well" (Key Informant 7). Although there has been a significant drive to simplify Auckland’s bus network, key informants still believed that the network was too complex for visitors. The identification by Key Informant 10 that residents do not use the bus network because of this perceived complexity is further vindication of this.

There has been significant progress within the downtown area, with the introduction of the Link service. Currently there are other reviews happening to other segments of Auckland’s bus network. The long-term vision for a simplified network is outlined in the Passenger Transport Network Plan, based on the four-tiered strategy. In order to provide simplified routes, it is considered that there must be integration between services. By creating more linear services that interconnect within each other, it provides certainty similar to a fixed rail or tram line. These linear patterns can be followed anywhere and reduce the cognitive and effective effort required to use a bus.

In order for such changes to happen, there are large administrative and structural changes required. There would also need to be significant changes to the timetabling of the entire network, given that there are so few high frequency routes currently operating in Auckland. The need to minimise wait times through connecting services would require pulse timetabling. It is obvious that to achieve the desired outcomes detailed in the Passenger Transport Network Plan there will be a considerable delay. Therefore, in the mean time, simplifying the information available will provide instant accessibility improvements to visitors and residents of Auckland.

6.3.15 Integrating Tourism Planning with Transport Planning

This section has identified significant problems restricting the usefulness of Auckland’s public transport network in regards to visitor movements. Although some of the problems identified are not tourism specific, instead problems with a lack of under-investment, there are key components identified that would encourage, and promote increased visitor usage. It is therefore suggested that to remedy some of these identified shortfalls, increased integration is achieved
between tourism and transport planning. Lumsdon (2006) identified two approaches; the first consists of implementing tourism specific routes, whilst the second approach encouraged the design of services to meet the needs of all users but modified to accommodate the desires of tourists (Lumsdon, 2006: 754). From the key informant interviews it would seem that there is a drive to create tourism specific routes, however, there is also an undertone that these routes must also service the local population to maintain financial feasibility.

It would seem that in both case study cities there has been a mixture of the two approaches, for example in San Francisco, there are specific tourist routes, the Golden gate Bridge for example, or the F-line trams, yet these services are still frequented by local residents. San Francisco and Singapore are praised for their ability to link attractions with public transport, it would seem that in Auckland this is not the case, and there is a need to investigate the potential of creating more tourism-orientated routes. With the Council having shares in many local attractions, increasing the connectivity could be presumed to enhance Council revenue. Indeed, that is what Key Informant 8 suggests:

If there’s more mobility, it’s better for all the venues that the Council owns and operates like Mt Smart, North Harbour Stadium the Zoo and so on. It means that all the entities that we fund like the Museum, MOTAT the Art Gallery become more viable (Key Informant 8).

In order for Auckland to become more visitor friendly, a much higher level of integration needs to occur between transport and tourism providers. Khadaroo and Seetanah (2008) believed governments needed to integrate transportation polices into tourism planning, especially for those countries with poor infrastructure. Given that in New Zealand local governing bodies are responsible for regional public transport networks, Auckland Transport needs to work more closely with tourism operators, attractions and Auckland Events and Economic Development to ensure the visitor needs of the region are provided for within Auckland’s public transport network.

In regards to incorporating tourism requirements into national transport planning, Key Informant 13, noted that “as an agency we haven’t put a lot of effort
into developing policies or guidelines in regards to tourism” (Key Informant 13) stating that instead, the current drive is on supplying the basics, (integrated ticketing, network planning, improved infrastructure); the Key Informant stated that “if the basics are done well then you are more likely to have a legible and easy to use system, which also benefits and encourages patronage from tourists” (Key Informant 13). It is considered that there needs to be a greater level of understanding between tourism requirements and the current public transport connections on offer, from both a national and regional perspective. Lew and McKercher (2006) identified this need, stating:

By understanding the attractions and how the available transport networks and modes connect attractions within each other and places of accommodation, can allow for more efficient planning of transport services to meet the needs of tourists and aid in marketing and attracting people to destinations (Lew and McKercher, 2006: 408).

Key Informant 8 identified a historical lack of connection between visitor requirements and transport planning. However, Key Informant 8 did state that there was a growing recognition of public transport’s role in tourism. If a collaborative effort was achieved between the tourist operators and Auckland Transport, routes can be assessed for their tourism potential or friendliness. The tourism industry would also be able to provide the information regarding the important tourist areas, allowing Auckland Transport to incorporate such information within their current network planning. There should be tourism specific monitoring and evaluation into the effectiveness of perceived visitor routes, to ensure such services can best meet the requirements of the visitor marketplace. This integration would be beneficial for both the tourism industry and the public transport operators of Auckland.

6.3.16 Summary of Section

This section sought to firstly identify the key components that constituted a visitor friendly public transport network, the key components were identified and consisted of the ease of use, simplicity, cost and ticketing, certainty, accessibility, attractiveness and information provision. With this understanding
this section then analysed the current Auckland network against the identified framework. This research uncovered a network that was lacking in many key components. This outcome has been caused by a myriad of reasons, including: lack of investment, complex networks, lack of information provision, limited integration between services and a seemingly misunderstood connection between the visitor needs and the public transportation network.

After identifying the problems, this section then drew on literature, and the case study examples in an attempt to address some of the key concerns raised. This discussion will in part determine some of the recommendations that will result from this study. The next section attempts to narrow the scope further to identify if there are any sections or modes of public transport that need immediate attention or have enhanced visitor viability.
Chapter Six: Results and Discussion

6.4 Objective Four

With regard to visitors needs on public transport, are there any specific areas of Auckland’s public transport network that need improvement? Are there modal preferences that exist, and can such preferences influence future investment?

This research objective can be broken down into two parts, the first half of the question attempts to understand if there are any tourism specific sections of Auckland’s public transport network that needed immediate attention. This will primarily be based on key informant opinions and case study examples. The second part of the research question seeks to investigate the existence of modal preferences by visitors. This combined the important aspects of visitor friendly public transport services as identified in Objective Three, whilst also taking into consideration the desire to increase Auckland’s visitor economy.

This research will attempt to identify if modal preferences exist in Auckland that were identified in the literature, with the recommendations being partially constructed from the recognised benefits witnessed from the case study examples. This section will be concluded with a brief investigation into whether identified preferences may be used to influence future investment within Auckland’s public transport network.

6.4.1 The Airport CBD Connection

When referring to one particular piece of Auckland’s public transport puzzle, the connection between the Airport and the CBD was continually cited as the most important in regards to tourism movements. This connection was continually mentioned as it holds a twofold importance, not only does the service provide a integral part of tourism travel in any city - moving people from the main point of entry to the predominant location of accommodation (CBD), as mentioned by Laws (2002); For 70% of New Zealand’s incoming visitors, the Auckland International Airport is their first impression of New Zealand. The location of Auckland International Airport reduces the economic feasibility of other modes. Key Informant 5 cited the average $65 taxi fare as being considerably higher
than many other destinations, and reducing the feasibility of the service for a large segment of incoming travellers.

Auckland international Airport is inadequately serviced by public transport. In a 2005 study conducted by BECA for Auckland International Airport, labelled ‘Improving surface access to New Zealand’s gateway’ the study noted the lack of services, unpredictability of journey times and lack of service coverage as three main areas of concern (Auckland International Airport Limited, 2005). Since the commencement of the study, some of these concerns have been identified and partially addressed. There is a current drive to create a QTN (Quality Transport Network) connection between the airport and the CBD through the Airbus service. The current Airbus service has seen dramatic increases in patronage, Key Informant 9 put this down to “the fact that it now runs every 15 minutes and services are provided on a 24 hour timetable” (Key Informant 9). This increase in frequencies and operational time has ensured greater flexibility and ease of use for the traveller.

The third point noted in the 2005 study (lack of service coverage) has also been improved. The Airbus Express service commences at the Auckland Ferry Terminal next to the Britomart Transport Centre. This has meant that the Airbus is reachable from ferry, bus and train. The actual vehicles themselves have had an upgrade; Key Informant 9 mentioned that “they [Airbus Express] have redone their fleet, and that is heavy duty buses with lots of luggage room” (Key Informant 9). This service seems to meet all the requirements mentioned by (Mandle et al., 2000) however, the service still has uncertainty involved, as a large portion of the journey is not on bus-laned roadways.

6.4.2 The Need to Improve the Connection

In relation to Hall’s (1999) four identified roles tourist transport has in destination development; the airport connection is still essentially a connection linking the origin market with the tourist destination, the origin market being the Airport and the destination being the CBD. Without adequate linkages between accommodation and the Airport, Law (2000) noted it can act as a
deterrent for potential visitors. This statement seems to be backed up through the interviews, with key informants mentioning the importance of first impressions along with the need to provide a reliable and accessible means of transport to the city to fully capture the visitor market. The key opinions are summarised in Table 20, below.

**Table 20: Key informant perspectives on the importance of the CBD Airport connection**

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>First impressions are extremely important. The vast majority of visitors arrive out in Manukau and you need to make their experience of getting into Auckland, as easy and as pleasurable as possible... Getting held up in traffic is not the best look for incoming visitors.</td>
<td>1</td>
</tr>
<tr>
<td>You have to get the visitors into the city in order to profit from tourism revenue. That is the bottom line.</td>
<td>5</td>
</tr>
<tr>
<td>The thing that would strike me as a tourists arriving in this country would be how incredibly car based and car orientated Auckland is.</td>
<td>9</td>
</tr>
</tbody>
</table>

The notion that the first impression of Auckland is one centred on traffic gridlock and car dependence is not a great start for New Zealand’s 100% pure advertising campaign. The importance of improving this connection is critical to ensure the desired growth of Auckland’s visitor economy. The lack of any off-road modes has meant that all airport public transport services are affected by traffic. Reliability, a key concern to visitors using public transport is subsequently adversely affected, with travel times varying from under 30 minutes to well over an hour at peak times (Auckland International Airport Limited, 2009).

This uncertainty was considered an issue of particular importance by key informants, with the ideal solution comprising of an Airport to CBD rail connection. Rail to airports is considered pretty common place in most visitor destinations around the world, indeed in both case study cities there were train connections. The desire to have a train connection again builds on the modal preference towards rail to ensure certainty of travel times; this is of increased importance with airport travel from the increased check-in inflexibility. The key
arguments for the need to install a rail connection to the airport are summarised in Table 21, below.

**Table 21: Key informant perspectives on the need for the Airport rail line**

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>The current bus is a good service, however, lacks priority lanes so does not have the certainty of time that tourists enjoy. Ideally a train line from the airport to the CBD would be the solution.</td>
<td>1</td>
</tr>
<tr>
<td>People arrive in the Auckland airport, what choices do they have? I don’t think that I have ever been to any international city that doesn’t provide rail from the airport; I mean you can catch a bus, but that is not a great solution.</td>
<td>3</td>
</tr>
<tr>
<td>If you look at all the major cities in the world, they have all invested in the last decade or so in fast rail, or rail at least from the Airport to the central city... because any mode of public transport at this stage is via road, and road is unreliable, timing wise.</td>
<td>5</td>
</tr>
</tbody>
</table>

There is an obvious preference cited by key informants towards a train link. The Airport to CBD train line has been identified in the draft plan, but is dependant firstly on the construction of the Central Rail Link. The Airport to CBD connection was also deemed critical in relation to the three sub-sector industries identified within this research. It is identified that the problems with certainty can only be resolved through the completion of the Airport rail line.

However, given the large lapse in time before implementation, serious consideration must be given to ensure a suitable interim measure. The pricing of the service was also an issue with some key informants. Key Informant 9 noted the price sensitivity of an increasing segment of the market, stating that “there are actually aspiring numbers of backpackers who have done their research before they get here, and they actually know that they can get to the centre of town from the airport much cheaper by catching a bus to Papatoetoe and catch the train from there” (Key Informant 9). Given the importance of this route for visitors, it would beneficial for the service to be applicable for the Hop Smartcard. Given the importance by Ruso and Van Der Berg (2002) of the location of ticketing
Chapter Six: Results and Discussion

services, it could be suggested that the Hop Smartcard should be available for purchase at the airport, or any other tourism specific passes that may be on offer.

6.4.3 Airport to CBD Summary

The need to improve the accessibility and certainty between the Airport and the CBD was considered by all tourism based key informants as the influential investment required to ensure the growth of the visitor economy. The need to create certainty in travel times was the predominant issue raised. This can either come about through an increased provision of bus-lanes or via means of a direct rail link in the future. With the importance placed on this connection from not only general tourism movements, but increasingly cruise ships and future business conventions, the desire to enhance accessibility by public transport to the airport is critical to ensure the growth in Auckland’s visitor market. This identified need requires not only a long term vision, but also a short term interim measure to ensure Auckland can capitalise on the large number of incoming visitors to the Auckland International Airport.

6.4.4 Mode Share Preference

This section attempts to identify if modal preferences exist by visitors on public transport networks. These preferences are analysed against the visitor requirements set out under Objective Three. The impacts increased services would have were investigated, before a brief analysis of the appropriateness of including such preferences within the development of future commuter based services was investigated.

Literature suggested that tourists have modal preference towards rail modes (Orbasli, 2000; Pearce, 2001; Thompson and Schofield, 2007). This modal preference noted in literature was also a strong theme of key informant interviews. The majority of respondents stated that this preference exists because trains are perceived to offer higher levels of simplicity and certainty and tourists have more control in where they are going, and where they will get off.
Unlike a bus, rail modes run on designated tracks reducing the uncertainty in travel times.

This modal preference towards trains, coupled with the need for improving the connection between the airport and the central city gives further weighting to the large infrastructure projects proposed within the Draft Auckland Plan, the Central Rail Link and rail to the Airport. The findings of this study, back up the findings portrayed within the Thompson and Schofield (2007) study of Manchester. The authors stated that higher levels of visitor satisfaction were recorded with rail based modes, and therefore it was suggested that the train or tram networks should take priority for investment. (Thompson and Schofield, 2007: 143). Similarly it would be suggested that the extension of both the rail and newly installed tram network should take priority in Auckland.

6.4.5 Light Rail - Trams

After a 55 year absence, Auckland has reinstated the electric tram. The 8 kilometre loop circumnavigates the Wynyard Quarter, a waterfront development managed by the Waterfront Development Agency. This tram according to key informants was primarily installed on the presumption it would attract tourists to this part of downtown. This mode of transport is often thought to have a nostalgic feel to it; light rail has been proven to have visitor attractiveness. The San Francisco cable cars and street cars are hailed as one of San Francisco’s main tourist attractions, with many travel websites noting problems with excessive cueing due to the popularity of the services. The reinstatement of the tram to downtown Auckland seems to mirror the thinking off Law (2002) providing both a means of transport whilst providing an experience attractive to the visitor market (Law, 2002: 175).
Although the loop track is a great start, a prominent concern raised by key informants related to the limited connection with existing public transport networks, and the limited use of transport between any meaningful locations. Key Informant 9 did state that an interim measure was in place, with the Central Link bus route modified to provide a bus service between Wynyard and Britomart. However, within the Draft Central City Master Plan further development of the light rail service is promoted and encouraged. The same document also notes that centre of Auckland offers very little to keep visitors in the city centre for longer than two days (Auckland Council, 2011a: 43). From a visitor perspective this planned extension of the tram network would make an immense difference to the visitor appeal of the central city, the extension of the service, could help revitalise the downtown area as the F-line case study of San Francisco showed. This would also encourage people into the downtown area and help maintain visitors for increased periods of time.

It is envisaged that the light rail network will work as a complementary service, integrated with the existing bus network and proposed Central Rail Loop. The light rail network will connect the central city with fringe urban villages and ultimately the wider region (Auckland Council, 2011a: 47). This desired extension of the tram network is highlighted in orange in Figure 33, to the left. Connecting the fringe urban areas with the central city would also help eliminate the lack of connecting services identified by key informants.

Figure 33: Proposed extension of tram network.  
Source: Auckland Council
Many key informants also noted the positive impacts the tram network could have if the service was extended, particularly along the waterfront towards Mission Bay. It is not hard to see why, especially as Rhoden and Lumsdon (2006) argued that tourists gain satisfaction primarily via sight. Providing a tram line that follows the coastline will ensure the amenities desired by visitors, and create a tourism attraction in its own right. The following table (Table 22) is a summary of key informant opinions in favour of the extension of the current tram network and the perceived benefits that could arise.

Table 22: Key informant opinions identifying the positive impacts from the extension of the tram service

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>The tram at Wynyard Quarter will be a great start we would love to see the service extended, It’s a stunning shoreline... You would get hundreds of people onto that every time a cruise ship comes in.</td>
<td>2</td>
</tr>
<tr>
<td>It would be ideal if you could take something like that around the waterfront, around to St Heliers, to Kelly Tarltons and the restaurants and cafes in Mission Bay, their business would just escalate.</td>
<td>8</td>
</tr>
<tr>
<td>If you create infrastructure like that and you would see Auckland booming as a destination, just that one thing, a tram to Mission Bay would have a massive impact.</td>
<td>2</td>
</tr>
<tr>
<td>It’s not that accessible, we need to escalate the tram, it needs to be connected to Britomart come up Queen Street and do a loop, we need to put it into place sooner rather than later.</td>
<td>9</td>
</tr>
</tbody>
</table>

From a tourism point of view the need to extend the tram lines in Auckland is essential if the desired growth of the visitor economy is to be administered. It is pleasing to hear that this extension is taking priority in the Draft Water Front Plan. The first extension should conceivably be a linkage from Wynyard Quarter, across the viaduct, past Britomart and along the waterfront to St Heliers. This service would meet all the requirements identified in Section (6.3) and according to key informants would create a catalyst for downtown tourism movements. Providing the service was not overpriced, it could be used as a genuine commuting service as well. This line would be a perfect place to continue the
heritage tram line to Auckland and would be a great way of showcasing Auckland’s history, identified as another important aspect of the visitor strategy, and within the draft plans.

6.4.6 Ferries

The Hauraki Gulf is what Auckland has grown around, and is what Auckland bases its promotional material on. The ‘City of Sails’ is a world renowned brand, helped by New Zealand’s prowess in yachting and the hosting of the Americas Cup Regatta. The Hauraki Gulf is seen as one of Auckland’s primary assets, thus, it could be presumed that visitor movements by ferries would be extremely attractive and have positive effects on visitor satisfaction. Ferries have been identified in literature Law (2002) as providing the ideal platform of tourism, leisure based transport. With the branding of Auckland based around the pristine waters of the Hauraki Gulf, it would make sense to encourage visitors to experience this first hand.

Ferry services are renowned to play the dual role of tourism transport exceptionally well. Brisbane’s linear ferry service, the CityCat is identified as one of Brisbane’s primary tourist attractions. Out of a possible 125 attractions on trip-advisor.com the CityCat is ranked 4th. Visitors praise the service for the attractiveness, cost effectiveness and visual amenities during both, the day and night (Tripadvisor online, 2011). Many key informants pointed out that the Devonport ferry was increasingly becoming a ‘must do’ activity; they also highlighted the positive connotations associated with tourists using this aesthetically pleasing transport mode. The following table (Table 23) is a summary of key informant quotations, highlighting the positive aspects of ferry services.
Table 23: Key informant perspectives on ferries in Auckland

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well I don’t think the gulf is that well promoted, if increased ferry services were provided this would be an easy way of getting more people onto the harbour.</td>
<td>5</td>
</tr>
<tr>
<td>They are all very positive, value added attractions, getting people out onto what Auckland is known for, has great impacts on tourist perceptions of Auckland.</td>
<td>7</td>
</tr>
<tr>
<td>We look at the Hauraki Gulf as the real Jewel to Auckland, so we send a lot of the media out that way, even out to Great Barrier, but Waiheke especially.</td>
<td>6</td>
</tr>
<tr>
<td>Last year in the middle of summer I got onto a ferry in the evening, there was a German tourist on the boat, and he turned to me and said “you live in one of the best cities in the world.”</td>
<td>4</td>
</tr>
</tbody>
</table>

Key informants 9 and 10 noted that the ferry services were being extended to Hobsonville and Beach Haven. This extension has been confirmed within the new Auckland Draft Plan, with both these ferry services designated to be implemented before 2020. The plan also highlighted the need for improved ferry services and supporting infrastructure on the North Shore, stating that additional ferry services will strengthen the connection between the North Shore, downtown Auckland and the Hauraki Gulf Islands for commuters and visitors (Auckland Council, 2011b: 169). However, even though the Plan stipulates the potential advantages increased ferry services could provide, the timeframe for the planned extension of ferry services to Takapuna, Browns Bay and down the south eastern coastline is unclear; with only further investigation planned between 2021 and 2030.

6.4.7 Tourism Potential of Increased Ferries

Many key informants believed that significant tourism benefits would arise from extending the ferry network. Waiheke was an example, extensively used by many key informants. Waiheke has become one of Auckland’s premier tourist destinations. The growth of Waiheke as a destination could not have happened if
the ferry service was not available. One of the proposed areas for the extension of ferry services – Takapuna - was highlighted by informants as having huge tourism potential. Takapuna was currently not considered a primary tourism destination due to a lack of accessible connections. With the advent of a ferry service key informants believed it would enhance Takapuna as a potential destination, the following table (Table 24) summarises the key informant opinions.

Table 24: Key informant opinions on extended ferry services along the North Shore

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>This also has positive effects for areas serviced, look at Waiheke it is now one of Auckland’s prominent destinations following the accessibility offered by the ferry.</td>
<td>2</td>
</tr>
<tr>
<td>There is constant speculation expanding it up the east coast, there is a proposal for a new jetty in Takapuna, this is all medium term but there is constant pressure and speculation about growing the ferry network.</td>
<td>10</td>
</tr>
<tr>
<td>I mean I think a lot of people do enjoy getting onto the harbour, I think the Takapuna ferry could be great, purely just to get people up into that area as well, because at the moment it is not really considered a destination. I mean the current lack of connections would probably limit the number of visitors going to Takapuna.</td>
<td>11</td>
</tr>
<tr>
<td>Yes, well it’s the double whammy were it can provide both transport and aesthetics, so that makes it extremely attractive and also it makes for an economic driver as well. It’s also taking traffic of the roads, reducing pollution - so it's a triple winner.</td>
<td>1</td>
</tr>
</tbody>
</table>

Inexpensive pricing was continually stated as a positive by tourists using the Brisbane ferry service; however, it seems that this does not apply to Auckland. Key informant 8 mentioned that “the ferry services are very much market lead, as there is not a lot of subsidy on those services” (Key Informant 10). This lack of subsidy has meant that some of these services, are perhaps not seen as great value for money. Key Informant 8 mentioned that the cost of the Gulf Harbour ferry service may be a potential deterrent for tourists: “there is a commuter service that runs from Gulf Harbour, but I think it may be perceived to be a bit
expensive” (Key Informant 8). It could be suggested that in order to gain maximum regional benefits any tourism specific pass, albeit with an increase in cost, should allow visitors unlimited access to the wider ferry network.

6.4.8 Objective Four Summary

This section set out to identify firstly, any sections of the public transport network that needed immediate attention. The overwhelming response, and the central concern, was the need to improve the connection between the Auckland International Airport and the CBD. The section then set out to understand if the same modal preferences that were identified in the literature review existed in the Auckland context. This research identified the same modal preferences by visitors, providing more depth to the international literature. In Auckland, it has been proven that both trams and ferries would administer the most positive influences on the visitor economy. These services will still have a regular commuter base, making the extensions financially feasible. The positive impacts identified within this objective, should be used as the reasoning behind the extension of both networks.

There also seems to be a preference for train travel that exists over buses. This preference is the primary result of reduced complexity and increased certainty that fixed routes offer. However, given the limited ‘scenic’ areas that the current commuter train networks reach, this preference for trains will only be used as a means of getting visitors primarily between A and B. This preference is something that needs to be considered, particularly in projects such as the rail to the Airport, or the Central Rail Link. It is acknowledged that buses will still be the primary mode of transport within Auckland; therefore, it is important that the buses are upgraded progressively to meet environmental perceptions that exist. The importance of tourist perceptions should further encourage the move towards an improved efficiency of the bus fleet.

The following section builds further on this modal preference, combining it with the overall needs and positive impacts that the research has so far uncovered. A brief analysis about the legitimacy of using this as further weighting for the investment is considered.
6.5 Objective Five

Can the identified needs and potential impacts on the visitor economy be used as further leverage on top of the identified existing needs for increasing investment into Auckland’s public transport network?

This final objective summarises the key components identified within Objectives One, Two and Four. This section seeks to identify whether the connection between positive tourism impacts and public transport investment can be used to obtain increased investment. This section draws upon key informant interviews, the document analysis, and where possible, relevant literature. This section concludes all the research findings into a succinct argument that will attempt to address the over-arching research question.

6.5.1 The need for Public Transport Investment

The need for increased investment into public transport is widely understood. This was identified by all key informants, heavily discussed within literature and is recognised in all regional land-use and transportation policies, strategies and documents. With the acknowledgement that the Auckland region will house 60% of New Zealand’s total population growth and estimates suggesting the region’s population will increase by one million people by 2040; the need for better public transport becomes increasingly apparent. To accommodate this growth, significant changes to the current transport facilities will be required, as Key Informant 4 stated “you can’t build more roads, there is just no space. Your only realistic option is that you get good public transport” (Key Informant 4).

With the Mayoral Campaign based around the desire to create the world’s most liveable city, this motivation has visibly influenced the current Draft Plans. In order to create a more liveable city, reducing the negative externalities of excessive automobile reliance is a central focus. For this to be achieved, improved public transport provision will play a critical role. The compaction of the urban environment to counteract the problems associated with sprawling developments can only be achieved through the provision of increased public transport, which will in turn, provide a viable alternative to the car. Currently as
this research has proven, the commuter based transport network is not able to give the flexibility required to reduce reliance on the motorcar for the majority of the day to day trips. The identified positive benefits of increased public transport patronage, highlighted in section (4.4.3) and in the literature review, can only arise through increased investment.

The linkage between transport planning and the urban form of Auckland is clear, concise and recognised. The understanding that transportation infrastructure underpins urban form is a prominent theory in urban planning literature. The Auckland Regional Policy Statement and the Regional Growth Strategy both identified the need to better integrate land use and transportation planning. The Auckland Local Government Act Auckland Amendment was also in direct response to the regionally specific transportation issues that had arisen. The residential compaction of Auckland was also identified by Key Informant 4 as being the only form of development that will support sustainable growth:

We have looked at four types of growth models, from the sprawling 50% growth outside the MUL, to all future growth being constrained within the current urban form. This was tested through the integrated transport model, which tested the effects of such development against indicators including environment, economic and social outcomes. Overall, a form of quality urban compaction came through much more positively than sprawling development…. to support a sprawling Auckland with public transport it becomes financially unfeasible, so then you had to support it through roads, and as soon as you did that, then all your other indicators deteriorated significantly - pollution, impact on rural land, biodiversity, water quality, congestion, the whole range of different attributes plummeted (Key Informant 4).

The compact urban form is underpinning the new Auckland Plan according to both key informants and documented in the recently released Draft Plan. The Plan stipulates that 75% of future residential dwellings will be catered for within the current MUL. The Plan recognises that the residential infill must be centred within public transport corridors or nodes to be effective.

A significant threat to this desired compaction around public transport corridors, as identified by many key informants, was the differences in philosophy evident within Central Government. The Minister for the Environment, Nick Smith
recently identified that the Government was considering the creation of a ‘Government Policy Statement’ for Auckland. The new Auckland Plan would have to comply with this policy under the legislative hierarchy of Regional Policy Statements. This would not only have detrimental impacts on Auckland’s public transport network, but as Key Informant 4 stated, such growth will create an unsustainable urban form, that undermines the targets set out in the NZTS, the ‘New Zealand Energy Efficiency and Conservation Strategy’ and the current draft RMA reform document; ‘Creating Competitive Cities’.

6.5.2 Differences between National Transport Policy and Regional Direction

The differences that exist between regional and national policies were extensively covered in key informant interviews. In regards to transport in Auckland, there are two main transport ‘guiding’ documents that have significant control over the direction of investment; the operative 2009 GPS, or the forthcoming 2012 GPS and the 2010 Regional Land Transport Strategy. These two strategic documents clearly dictate different desired paths for Auckland’s public transport network.

The GPS, which the Regional Land Transport Strategy is legislatively required to take effect to, is based around increased productivity and reduction in travel times. This forms the basis for the argument towards a road building bias, evident within the activity classes. In contrast, the 2010 Regional Land Transport Strategy recognises the need for a different strategy in Auckland, to achieve a more sustainable city and transportation network. Investment in public transport has also been shown to reduce traffic congestion, which Key Informant 3 identified as costing the region more than $1 billion annually. Continued road building within Auckland was believed to be a detrimental step by the vast majority of key informants.

Section (4.2.4) of the Context Chapter highlighted the effect road building had on the urban form of Auckland, Key Informant 3 also identified this problem stating that if "you invest in roads people tend to drive further and further and congest the network" (Key Informant 3). Literature has proven that this low density, car orientated development adversely effects public transport. Indeed this is the
case in Auckland, and this acknowledgment has resulted in the continued effort to change the historical development patterns. The current thrust to develop the Auckland motorway network further north under the Roads of National Significance Campaign was identified by Key Informant 4 as undermining the urban form of Auckland, the Key Informant stated that Auckland “is unique in the terms of urban form and requires a unique response” (Key Informant 4). Continued road building and upgrading is identified by key informants and within regional documentation as undermining the regions strategic growth policies.

### 6.5.3 Auckland’s Public Transport Funding Gap

The uniqueness of Auckland’s transport and urban form problems requires a significantly different solution than the national funding allocations provide. This policy has brought about a considerable funding gap, particularly in relation to public transport expenditure. The 2012 GPS has allocated a significant amount of investment into state highway building to the detriment of other activity classes. Key informants identified that this funding gap was having a severe impact on the ability for Auckland to finance the much needed public transport projects. There was an understanding by key informants that Auckland must find regional streams of revenue to ensure the equity can be obtained to fast track regionally important investments. The Central Rail Link was continually cited by almost all key informants and within the Draft Plans as the critical component in Auckland’s public transport network. The following table (Table 25) is a summary of key informant opinions on the need to secure regional funds.
### Table 25: Key informant perspectives on the need to obtain regional funding sources

<table>
<thead>
<tr>
<th>Supporting Quote</th>
<th>Key Informant</th>
</tr>
</thead>
<tbody>
<tr>
<td>We had a very pro government last time and a very un pro public transport government now and that is the cycle, so in Auckland we have to work around that.</td>
<td>9</td>
</tr>
<tr>
<td>If we are serious about public transport provision, we are going to have to get some financial mechanisms in place.</td>
<td>10</td>
</tr>
<tr>
<td>The problem with congestion charging is that, given that it is a carrot and stick approach its fine to charge people additionally for using their vehicle. But you have got to have the public transport alternative and right now we don’t have the adequate public transport in place.</td>
<td>8</td>
</tr>
</tbody>
</table>

Many of the Travel Demand Management measures identified by key informants and in Regional Transport Strategies all have one impeding problem, they require an upgraded public transport network before such policies can be implemented. This was identified by Key Informant 8 and also in the literature review (Thorpe et al., 2000; Gärling and Schiutema, 2007). Key Informant 3 also identified that for the large, rail based projects; Central Government will be “critical to ensure the required capital can be obtained, it is unrealistic to expect such projects to be funded through only regional means” (Key Informant 3). The following section identifies the potential for incorporating positive tourism impacts into the funding for public transport investment.

### 6.5.4 Can Positive Tourism Impacts help reduce the Funding Gap?

This research has investigated the connection between tourism in Auckland and public transport provision. The research has shown that there is a strong relationship, but that this relationship requires an increase in infrastructure, to ensure that the benefits of an expanded Auckland visitor economy can be obtained. Auckland is already the primary cruise port, and will have the required infrastructure to host conventions and large scale sporting events. However, the future growth of these tourism industries has been identified within this research as being increasingly dependent upon quality public transport provision, which currently, Auckland does not have. Key Informant 2 stressed
the importance of investing in public transport by stating that “travel is never going to become more affordable, we need to invest now to ensure we benefit as much from tourism revenue whilst as an industry it is still viable for the general public” (Key Informant 2).

Given that urban areas have been identified within this study as being less seasonally dependent and produce higher yields of expenditure, enticing more people to Auckland may result in the partial achievement of enhancing visitor expenditure and reducing seasonality fluctuations identified within the ‘Tourism Strategy, 2015’. What this research has demonstrated is that significant tourism benefits can arise out of public transport investment, so the question remains can these benefits be used as leverage for further investment?

The cost benefit analysis of projects currently operating in New Zealand was identified by planning related key informants as not adequately monetising second order benefits. The benefits key informants were referring to included land use impacts, reducing traffic congestion, environmental impacts, greenhouse gas emissions and health implications. This problem was also identified within the literature (Hanley et al., 1993; Litman, 1999; Abusah and de Bruyn, 2007). This research has also identified another second order benefit that was not currently considered within literature. Public transport has been shown to have positive benefits on the Auckland visitor economy, but at the moment carries no weighting in relation to the applicability for funding.

Key Informants 3 and 8 believed that if public transport investment is going to stack up against road building economically, these second order benefits must have monetary valuations. This research has identified a viable connection; however, more research is required to ensure a monetary value can be applied. A limitation of this research is the inability to provide accurate economic benefits, only perceived connections that can be obtained within the short time frames. Thus, further complementary research would be required in an attempt to monetise the identified connections this research has formulated.

There needs to be serious thought and consideration given to the way in which transportation funding is provided. By not allowing projects to compete for
funding between activity classes, projects are being funded that perhaps are not the best usage of State money. Indeed, the cost benefit analysis process needs to be improved so that they include second order benefits, and future implications. The current 30 year limit to benefits produces investment that is short-sighted, in the sense that short term benefits are perceived as more beneficial than long-term gains. If New Zealand is to be seen as a ‘clean, green’ country and an attractive place to visit, a higher allocation of funding must be given to energy efficient means of transportation.

6.5.5 Summary of Chapter

This section provided an analysis of the results and discussed the ramifications of the findings before potential solutions were identified for each of the five research objectives. This section has provided a cohesive link between public transport and urban tourism development in Auckland. This interdisciplinary connection has not been highlighted in any previous studies in New Zealand, and was also identified within overseas literature as being problematic, with tourism academics believing that the connection was often miss-understood.

Through the combination of information sources identified within the methodological framework, the need for public transport investment in Auckland has been further enhanced within this research. This research has identified the need for public transport not only in solving congestion, social, economic and sustainability concerns but, most importantly, that public transport will play a critical role in creating growth in the Auckland tourism industry. Although there is a considerable connection in regards to the overarching research question, there are barriers that currently restrict the ability to influence funding.

This chapter has provided the basis of information that will determine the recommendations and outline the key conclusions discovered. The following chapter summarises the findings of this research and provides realistic recommendations that will help address the problems and concerns raised by key informants and within literature.
Chapter Seven: Conclusion and Recommendations

7 Conclusion and Recommendations

This thesis has explored a relatively unknown realm, with the aim of connecting the need to provide sustainable tourism within the wider emphasis of sustainable development. This interdisciplinary research aimed to identify if there was a connection between public transport and tourism development in Auckland, New Zealand.

The first stage of this research involved an in-depth examination of tourism and transport planning literature. This provided the need, the problems and the potential solutions in regards to public transport’s role in enhancing urban tourism and creating sustainable development. The literature review also analysed historical problems restricting the development of public transport. In conjunction with this literature, it was also necessary to contextualise the research in relation to the wider transport planning frameworks of Auckland and New Zealand. The relevant legislation, policies, plans and strategies were identified and examined. The funding allocations and mechanisms that control New Zealand transport investment were also extensively investigated.

This knowledge helped formulate the key informant interviews, conducted with relevant planning and tourism professionals. Two case study cities, Singapore and San Francisco were also used to inform the researcher on tourism specific, practical solutions that could be implemented in Auckland. This provided good practice examples from key areas identified within the literature review.

The outcomes of this study, although specific to the Auckland region, are applicable to other urban areas of New Zealand. This research can assist urban areas of New Zealand in implementing sustainable transport solutions whilst encouraging growth in their own visitor economies. This chapter reviews the results for each of the research objectives and draws on some key recommendations. This chapter will finish with an analysis of the significance of...
Chapter Seven: Conclusion and Recommendations

this research and the potential for future research, before concluding with some final remarks.

7.1 Key Research Findings and Recommendations

The results of this thesis were designed to address the following overarching question:

**Can public transport provision positively influence urban tourism in New Zealand? Can these positive influences be used alongside the traditional needs to leverage additional funding for public transport infrastructure?**

To fully understand, and to provide an in-depth analysis in regards to the specific Auckland and New Zealand context, this overall aim was broken down into the following five objectives.

7.1.1 Objective One

**Is there a need for public transport in tourism? From a national perspective and a regional Auckland viewpoint?**

The requirement for sustainable transport solutions was considered an essential ingredient to ensure the continued success of New Zealand’s tourism industry. Many key informants identified that the current transportation policies in place have the potential to undermine the 100% pure brand, which not only the tourism industry, but increasingly the country relies upon.

There was recognition that incoming tourists were becoming much more aware of their environmental impacts, increasingly, visitors are seeking modes of transport on their perceived eco-sensitivity. The findings of this study therefore extended the findings of the Baysal (2001) study. This study backed up the findings from Thompson (2007) and Ablate and Bel (2010) with the identification that in urban areas of New Zealand there is still demand for public transportation; this captive market was identified as a growing segment. With literature suggesting that incoming tourists will consist of a higher proportion of
elderly in the future, the New Zealand tourism industry must react and provide the adequate infrastructure to ensure destinations become elderly friendly.

With the acknowledgement that Auckland wants to expand the visitor economy and the recognition that the Auckland region provides a significant proportion of overall tourism revenue, it was believed that enhancing Auckland’s tourism capacity would have national benefits. Urban tourism was identified as being less seasonally dependant, whilst providing higher tourism yield. Therefore, urban tourism in Auckland could help with two important goals for the tourism industry - reducing seasonality and increasing visitor expenditure.

The lack of public transport was identified as the primary barrier restricting the growth of Auckland’s visitor economy. Many of Auckland’s primary features are only accessible by private modes. Virtually all key informants argued that an improved public transport system would have positive results on Auckland’s image as a tourist destination. Auckland’s traffic congestion and substandard provision of public transport was considered a determining factor in the amount of time visitors were willing to stay in the region.

The internet provides a wealth of visitor information, and it has been identified that tourists are researching destinations prior to their arrival. As this research has proven the current reviews of Auckland are extremely poor, especially when compared against the case study cities. This was identified by some key informants who believed that such reviews would inflict negative influences on Auckland; restricting repeat visitations and adversely affecting word of mouth referrals.

7.1.2 Objective Two

Are there specific sectors of Auckland’s tourism industry that have an enhanced requirement for public transport infrastructure?

This objective sought to understand if there were sub-sectors of the urban tourism industry that were more reliant on public transport. This was not covered within any reviewed literature, so the findings of this section are considered to be filling the literature gap identified by Page (2005). This study
found an increased need by two industries in relation to public transport provision – cruise ships and large scale sporting events.

Large scale sporting events were briefly identified within literature as being reliant on public transport. This study investigated the unfolding of the Rugby World Cup opening night transport failure. The problems were caused by unexpected large crowd sizes; and the ageing infrastructure and inability to enhance frequencies, particularly on the train network. A comprehensive analysis was covered on the weighting given by organising bodies on the need for public transport in regards to sporting events. What was uncovered was an increasingly important emphasis being applied on the legacy of such events; environmental impacts were identified as having the largest weighting.

A thorough examination of the guidelines for Commonwealth Games host cities provided further evidence on the importance of public transport within large sporting events. The 2014 Commonwealth Games was awarded to Glasgow, Scotland, primarily on the belief that the public transport network was of a much higher standard than the other competing host city. This research has identified public transport as being a critical component of any successful large sporting event. It would therefore be considered that the transportation problems of the Rugby World Cup could have adverse impacts on Auckland’s ability to host any future large scale sporting events.

The cruise ship industry was considered within this research as having a heightened requirement for public transport; with around half the cruise ship passengers identified as being captive public transport users. The cruise ship industry was described as being internationally transferable. The industry was considered to extensively survey their passengers; with this feedback partially determined how ‘cruise friendly’ a destination is. Accordingly, public transport plays an integral part in making cruise friendly destinations. Tourism informants believed that the current lack of public transportation was a contributing factor behind the slowing growth of the industry. There was considerable concern cited that without increased investment into public transport, the predicted growth of
the industry will not reach fruition, instead cruise ships would be deployed elsewhere.

7.1.3 Objective Three

**What makes a visitor friendly network? Is Auckland public transport network visitor friendly? If not what can be done to improve it?**

Auckland’s public transport network was identified as being expensive, unreliable and not adequately suited to visitor needs. Auckland’s public transport was more costly than 13 other comparative cities; primarily created from the lack of integration between private companies. In Auckland there seems to be a tendency to overprice tourist services. This was most evident with the Wynyard Loop tram, and the Airbus service. The unreliability of Auckland’s public transport network was cited as a key concern by key informants. The lack of bus lanes creates high levels of uncertainty, whilst the train network still suffers from punctuality concerns. Given the heightened importance visitors place on certainty such problems must be addressed.

Although this research has identified the need for significant investment to address some of the concerns raised, there are also many practical methods that can make public transport in Auckland more visitor friendly. The literature review and key informant interviews highlighted the problems restricting visitor viability on the network. These identified problems provided the reasoning behind the case study section; good case study examples were used to help from any solutions within the Auckland context. The following recommendations comprise mainly practical solutions that can alleviate some of the identified problems within Auckland’s current public transport network.

**Recommendation One: Tourism specific ticketing**

With the understanding that pricing and ticketing of public transport was an issue in Auckland, it is suggested that Auckland Transport extends the visitor A-PASS available throughout the Rugby World Cup. Tourism specific passes have been proven in many cities as creating positive tourism impacts. This research
identified the need in Auckland, and it was suggested that by providing such a pass it would encourage longer stays in the city. It is recommended that the pass covers all modes of public transport, including the tram, additional ferry services and the Airbus. In order to further reduce barriers restricting visitor public transport use, it is envisaged that the tourist pass should be made available at the Airport, I-sites and other frequented tourist areas.

The pricing of the tourist pass should also decrease over time. For example a three day pass could cost $30 whilst a week long pass could be $50. Such pricing acknowledges the secondary benefits of maintaining visitors within the city for extended periods of time outweigh the potential loss of revenue on the transport system. New legislation being unveiled will make integrated ticketing nationally transferable. Further research should be conducted to investigate the potential for a national tourism transport pass. Such a pass was believed to have marketing potential, with the ability to influence more sustainable modes of domestic transport. It is recommended that research should be undertaken by the Ministry of Economic Development in collaboration with Local Authorities and industry representatives.

**Recommendation Two: Enhanced information provision**

Currently, there is a distinct lack of information provision aimed at the needs of visitors to Auckland. Compared to the case study examples, the MAXX website does not offer any tourism specific information, or advanced help. It is suggested that the MAXX website should adopt a guide to meet the needs of the visitor market. This visitor guide could be modelled on the ‘travel with ease’ brochure available in Singapore. It is also suggested that Auckland Transport, the providers of the MAXX website, could look into the potential of providing information in multiple languages, as language is considered a barrier to foreign ridership.

Consideration should be given to enhanced onboard information provision, particularly on bus services that are visitor orientated. This information guides tourists about upcoming transfer points, or nearby attractions. This further aids in the simplicity of the service, and minimises the effort required by visitors
unfamiliar to the system. This research supports the proposal in the Draft Plan, of improving wayfinding provisions; however, this should focus heavily on the need to enhance public transport signage, particularly around key tourism areas and in the CBD. The onus of such development will fall on the Auckland Council. It is suggested that input should be sought from both Auckland Transport and Auckland Tourism Events and Economic Development Agency.

**Recommendation Three: Simplifying the network**

This research identified the complexity of the current Auckland bus network as a significant deterrent for visitor usage. With this acknowledgment, Recommendation Three encourages the current efforts being made by Auckland Transport to simplify the bus network, and construct the four tiered network plan outlined in the Auckland Passenger Transport Network Plan (2006-2016).

There will still be a requirement for a comprehensive, and due to Auckland roading layout, complex bus network. With this in mind, it is suggested that Auckland Transport should provide simplified information to visitors. Both case study examples extensively used simplified, schematic, network diagrams. The map investigated within the visitor A-PASS is a good starting point, and should be extended throughout the network; special consideration should be given to the appropriateness of a visitor specific map. This could follow the example of the Singapore bus map, which provided information on tourist attractions and areas of interest integrated with public transport information, routes and services.

**Recommendation Four: Integrating tourism planning with transport planning**

For many of the above recommendations to occur, a higher level of integration between the tourism industry and transportation planners must first be realised. Without this integration, transportation planning will not be able to comprehensively incorporate the desires and needs of the tourism industry. There was recognition both from a national level and regional perspective that currently the requirements of the tourism industry are currently not extensively thought about, or provided for.
This integration would be influential in ensuring the needs of Auckland’s tourism industry are better incorporated into public transport planning. This would help alleviate some of the concerns raised about inadequate accessibility to attractions and the peripheries of Auckland. The tourism industry obviously has a better understanding about the most frequented areas and attractions, so by providing this knowledge it would be presumed that commuter routes could be modified to better incorporate the tourism industries requirements. It could be suggested that representatives from the tourism industry (attractions, services, experts and inbound operators), Auckland Transport and the Auckland Tourism Events and Economic Development Agency could have a roundtable discussion to highlight key industry concerns, and to ensure that the desired improvements are incorporated into the visitor strategy and any future public transportation planning.

7.1.4 Objective Four

With regard to visitors needs on public transport, are there any specific areas of Auckland’s public transport network that need improvement? Are there modal preferences that exist, and can such preferences influence future investment?

The connection between the Auckland International Airport and the CBD was identified as the area of upmost concern, thus, agreeing with the importance placed on this connection by Law (2002). The primary concerns rested not on the vehicles, instead on the unreliability of travel times with the current Airbus service. The Airbus is still dependant on the flow of traffic on the cross town arterial roads. This research has proven that the Airport rail link is critical to ensure Auckland’s growth as a tourist destination. It was identified as a key component of a cities public transport network when hosting large sporting events. The Airport rail link would also have positive impacts on the convention industry, the cruise ship industry (Auckland acts as a transport hub where people arrive at the airport and board the vessel at the CBD).
Recommendation Five: Improve connectivity between the Auckland International Airport and CBD

Although there is commitment to provide rail to the airport within the current Draft Auckland Plan, it would be suggested that the positive tourism impacts could bring these timeframes forward. Notwithstanding this, there will still be a significant lapse in time before the Airport rail link could be implemented. The construction of the rail spur is also dependent on the completion of the Central Rail Link, as without the added capacity, no extra trains will be able to reach Britomart. It is recommended that an interim measure must be put in place. This would require the completion of bus-lanes and priority measures to ensure certainty on the current Airbus route.

Where any Modal Preferences Identified?

This research has backed up the findings by (Orbasli 2000; Pearce 2001; Thompson and Schofield 2007) that suggested visitors had a modal preference towards rail modes over buses. This was primarily put down to the fact that trains were perceived to offer higher levels of simplicity and certainty. This modal preference towards trains, coupled with the need for improving the connection between the airport and the central city gives further weighting to the large infrastructure projects proposed within the Draft Auckland Plan, the Central Rail Link and rail to the Airport. Buses will still play an important part in visitor transportation around Auckland; therefore, it is necessary to ensure that tourism needs are incorporated into the planning of Auckland’s bus network.

Recommendation Six: The extension of the Tram network

It is recommended that the current Wynyard Loop is extended. This will have positive benefits not only for the areas the tram may connect (Mission Bay or Queen Street) but it will be a significant attraction for visitors, bringing them into the downtown. The pricing of the service was a concern raised in this research; in order to again maximum benefits from such attractive modes, the council should encourage usage by visitors and not price them off the service. If the visitor pass does get extended it would be beneficial for such a pass to include
unlimited rides on the tram service, as is the case in San Francisco. The current pricing of the Wynyard tram also eliminates potential residents of the city from using the service as a legitimate means of transport.

**Recommendation Seven: Promote the extension of Ferry services**

In Auckland, with the tourism marketing strategy based around the Hauraki Gulf it was considered beneficial to get as many visitors as possible on ferries to witness the ‘jewel’ of Auckland firsthand. With this recognition it is envisaged that the ferry services should be extended. The Draft Auckland Plan has identified the potential to extend the services along the North Shore and down the south eastern coastline. However, this is only planned for investigation between 2021 and 2030. It is suggested that these investigations by the Council should be brought forward, as a result of the positive tourism benefits that have already arisen from ferry services and the recognition that similar results could occur in new areas serviced by an extended ferry network.

**7.1.5 Objective Five**

**Can the identified needs and potential impacts on the visitor economy be used as further leverage on top of the identified existing needs for increasing investment into Auckland’s public transport network?**

This research has provided evidence to suggest that public transport provision will play an integral role in administering the desired growth of Auckland’s visitor economy. These benefits are commonly classified as second order benefits. Second order benefits were shown in the literature review as being hard to monetise, and subsequently fail to gain significant weighting through the current cost benefit analysis that determines transportation expenditure. The heightened tourism need for some routes and the potential positive impacts associated with the extension of the tram and ferry networks needs consideration.

This inability to monetise such external influences ultimately minimises the ability for this research to be used as leverage for increased investment into
public transportation. This is perhaps, the single largest problem invalidating the positive influences found in this research. It was widely regarded by academics that the current means of funding transport infrastructure did not create the grounds for sustainable transport; this research has uncovered the same problem in the New Zealand context.

Public transport is, and will increasingly become, the most useful tool in eliminating transport related problems in Auckland. Public transport is required before Travel Demand Management policies can be implemented. Auckland’s congestion cannot be fixed by building more roads; instead modal shift away from the motorcar is required. The Northern Busway identified in the context chapter highlighted the ability for public transport to significantly reduce congestion, enhance the economic prosperity whilst reducing green house emissions of the region.

The divide between government and regional thinking is evidently clear within this research, highlighting the fact that transportation planning is significantly influenced by politics. Under the current Government there is a very obvious bias towards roading investment. The allocation of funds given to the activity classes is completely unbalanced and restricts the availability of funding required to fix Auckland’s regionally specific transport issues. This has created a significant funding gap that is continually cited within all Auckland plans, polices and public transport strategies.

**Recommendation Eight: Monetise second order benefits and incorporate external influences into transport infrastructure appraisals**

To ensure the benefits of public transport are recognised, it is recommended that second order benefits should be monetised, and given increased recognition within transport appraisals by the New Zealand Transport Agency. This would ensure the positive tourism benefits identified within this research can be incorporated into business cases. Secondary benefits would also recognise the importance of reducing emissions and adhering to sustainable development principles, both critically important in ensuring longevity for New Zealand’s tourism industry.
Chapter Seven: Conclusion and Recommendations

There also needs to be serious consideration given to the inclusion of outside externalities and changes to the discount ratio used for infrastructural appraisals. Fluctuations in fuel prices will impact on the amount of vehicle travel, and subsequently the available finance for transport investment. Long term positive impacts of transport investment are currently overlooked. It was proven in the literature review that public transport investment acquires gradual benefits through the product take-off curve. The current appraisal technique does not give any weighting to future impacts, therefore projects that are perceived to produce greater short term benefits are considered more appropriate for investment.

7.2 Significance of Research and Future Research Potential

This research has differed from any other known research in New Zealand. This thesis has been completely explorative in ascertaining the connection between tourism and public transport. By attempting to understand the need for public transport from a tourism perspective, a distinctly different approach has been taken to identify further reasoning and requirement for public transport investment in the Auckland area. This research has identified the need for investment to ensure the growth of Auckland’s visitor economy. However, this research has also identified specific practical measures and integrated planning processes that can enhance the current network, increasing visitor viability and ease of use.

The results and recommendations are therefore distinctly different from other publications present in the New Zealand context. It is hoped that the recommendations and conclusions identified within this thesis can help both Auckland Tourism Events and Economic Development Agency to incorporate key public transport factors into their regional visitor strategy, and Auckland Transport can use the recommendations to help address funding constraints and implement measures that would encourage more visitors to use the public transport network.
As this research was exploratory, there are some areas that need addressing through further research. The lack of qualitative data provides the opportunity for a more in-depth analysis of visitor perceptions towards Auckland's public transport network. It is envisaged that the findings of this research could help formulate the outlying questions and structure of any further qualitative studies and that such qualitative data could further substantiate findings upheld within this research.

The inability to monetise second order benefits, although identified as problematic, and a restriction to public transport improvements, needs further research to influence the required high level changes. Such actions are outside the scope not only of this research, but to a degree the field of planning. However, the implications of the current funding appraisals have shown to have significant flow-on effects for planning, particularly in regards to achieving the desired end goal of sustainable development.

7.3 Concluding Comments

The current transportation direction seems to be going against the desired outcomes of the 'New Zealand Transport Strategy, 2008', the 'National Infrastructure Plan', the 'New Zealand Tourism Strategy, 2015' and the 'New Zealand Energy and Efficiency Conservation Strategy'. The current framework that decides the costs and benefits of transportation expenditure must incorporate external influences and second order benefits. Without these changes, transport investment in New Zealand will continue to remain completely detached from the supposed sustainable policy frameworks ‘guiding’ New Zealand’s development.

New Zealand as a country is completely dependent on imported, finite resources to fuel our transportation. This makes the county extremely vulnerable to future fuel price fluctuations. The National Infrastructure Plan identifies the transport sector as being resilient to future disruptions and changing circumstances. This research would suggest differently; New Zealand is a car dependant society that has invested heavily into roading infrastructure at the expense of more
sustainable modes, what has resulted, is a transport network almost entirely dependent on the availability of a finite resource.

The current trend of reduced auto-mobilisation in developed countries is conceivably overlooked in the financial outlook set out for the National Land Transport Fund. It is estimated that the Fund will increased from $2.9 billion a year currently, to over $4.2 billion by 2021. What this does not consider though is the impact of rising fuel prices and the drive for increasing vehicle efficiency. Both these impacts will reduce the amount of funds available for future transport investment.

This research has proven that public transport can play a pivotal role administrating the desired outcomes of the New Zealand tourism industry whilst providing the grounds for sustainable urban development, identified in the current RMA discussion document, Creating Competitive Cities. In order for New Zealand to achieve its global commitments to a reduction of emissions and to ensure the maintenance of the clean, green imagery, significant changes must be made to New Zealand’s current transportation direction and expenditure.


Evans, L. (1972). *The government railways department as suburban developer and public transport co-ordinator in the Wellington metropolitan area.* The Commuter, the Car, and Metropolitan Wellington: 36-53.


## Appendices

### Appendix 1: Key Informant List

<table>
<thead>
<tr>
<th>Key Informant Number</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Director, Inbound Tourism Operator</td>
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<tr>
<td>2</td>
<td>Managing Director, Inbound Tourism Operator</td>
</tr>
<tr>
<td>3</td>
<td>Policy Analyst, NZCID</td>
</tr>
<tr>
<td>4</td>
<td>Spatial Planner, Auckland Council</td>
</tr>
<tr>
<td>5</td>
<td>Managing Director, Inbound Tourism Operator</td>
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<tr>
<td>6</td>
<td>Managing Director, Inbound Tourism Operator</td>
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<tr>
<td>7</td>
<td>Tourism Business Manager</td>
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<tr>
<td>8</td>
<td>Auckland Councillor</td>
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<tr>
<td>9</td>
<td>Transport Planner, Auckland Transport</td>
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<tr>
<td>10</td>
<td>Transport Planner, Auckland Transport</td>
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<tr>
<td>11</td>
<td>Sustainability Advisor, Auckland Tourism</td>
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<tr>
<td>12</td>
<td>Research Analyst, Ministry of Economic Development</td>
</tr>
<tr>
<td>13</td>
<td>Transport Planner, NZTA</td>
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</tbody>
</table>
Tourism in Auckland: A Driver for Public Transport?

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you of any kind and we thank you for considering our request.

What is the Aim of the Project?

The aim of this project is to explore public transport provision in relation to tourism expenditure. Can a tourism friendly public transport network attract more tourists, and for a greater length of stay into the Auckland area? This correlation, if it does exist will then be used as a reasoning to why more expenditure should be assigned to public transport provision in the Auckland context. The research is being undertaken by Toby Mandeno (an MPlan Student) as part of the requirements for the Masters of Planning programme.

What Type of Participants are being sought?

The study seeks the viewpoint of professional opinions of those working in organisations relevant to the study. The most appropriate participant will be selected by the organisation and the organisation’s not the individuals views will be sought.

What will Participants be Asked to Do?

Should you agree to take part in this project, you will be asked to participate in a semi structured interview conducted in person, which will be recorded for transcribing. If the interviewee is opposed to recording the dialogue notes will be taken instead. The interview will be up to 1 hour in duration and the questions will ask for the views of your organisation in relation to the above aim. At no point will personal information or opinions be required. Please be aware that you may decide not to take part in the project or terminate the interview at any time without any disadvantage to yourself of any kind.

What Data or Information will be Collected and What Use will be Made of it?
The interview will be recorded, transcribed, and stored in accordance with University of Otago policy. Personal information will only be collected for use by the researchers, in contacting participants during the research process.

The researchers, and supervisor, Planning Practice Fellow Rosalind Day, will have access to the data. The results of the project may be published and available in the University of Otago Library, and you are welcome to request a copy of the results if you wish. Every attempt will be made to ensure your anonymity. Participants will have the opportunity to correct or withdraw the information they provide in the interview before the research is published by contacting the researchers or supervisor Associate Professor Rosalind Day.

This project involves an open-questioning technique. The general line of questioning includes the role of the organisation in relation to tourism and/or public transport. The precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview develops. Consequently, although the University of Otago Human Ethics Committee is aware of the general areas to be explored in the interview, the Committee has not been able to review the precise questions to be used.

In the event that the line of questioning does develop in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular question(s) and also that you may withdraw from the project at any stage without any disadvantage to yourself of any kind.

The data collected will be securely stored in a locked filing cabinet in the Geography department in such a way that only those mentioned above will have access to it. At the end of the project any personal information will be destroyed immediately except that, as required by the University’s research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

**Can Participants Change their Mind and Withdraw from the Project?**

You may withdraw from participation in the project at any time and without any disadvantage to yourself of any kind.

**What if Participants have any Questions?**

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Toby Mandeno  or  Planning Practice Fellow Rosalind Day
Department of Geography  Department of Geography
University of Otago  University of Otago
(03) 4794218  (03) 4798785

This study has been approved by the Department of Geography, University of Otago.
Tourism in Auckland: A Driver for Public Transport?

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:
1. My participation in the project is entirely voluntary;
2. I am free to withdraw from the project at any time without any disadvantage;
3. Personal identifying information (audio tapes) will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years; as per University of Otago policy.

I agree or not agree to be recorded during this interview. Please circle below:

I agree                                 I do not agree

4. This project involves an open-questioning technique where the precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview develops and that in the event that the line of questioning develops in such a way that I feel hesitant or uncomfortable I may decline to answer any particular question(s) and/or may withdraw from the project without any disadvantage of any kind

5. The results of the project may be published and available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve my anonymity.

I agree to take part in this project.

.................................................................
.................................................................
(Signature of participant)                          (Date)

.................................................................
(Signature of Researcher- acknowledging receipt)