



Gauging the success of international travel demand management approaches

Understanding the travel demand management (TDM) approaches used internationally can provide insights into their potential value for New Zealand. Research by MRCagney (NZ) Ltd has examined the success, or otherwise, of some of the key approaches used overseas, with a particular focus on their impacts and appropriateness.

The outcome, as detailed in the full report, is a qualitative and observational examination of TDM across a range of international settings, together with a number of critical insights into TDM practice in general.

A RANGE OF APPROACHES

TDM can be defined as: 'An application of strategies, policies and initiatives to reduce travel demand or redistribute demand across multiple modes of transport'. It is implemented in numerous different ways throughout the world, to address issues associated with congestion and encourage shifts in people's choice of transport modes.

Six city case studies and 10 focus areas were examined in the research.

The six cities – Amsterdam, London, Singapore, Sydney, Seattle and Vancouver – all use a range of TDM approaches and strategies, and have all experienced some success in meeting mode share targets, or have long histories of sustainable mode share. An example from London is provided in the box below.

SNAPSHOT ON LONDON

London faces many of the same challenges as some New Zealand cities. These include rapid growth, limited space to build new infrastructure, a desire to improve air quality, high house prices, and a need to transport people over significant distances, especially during peak times. It also faces some emerging challenges due to changing transport demands, such as greater numbers of private hire taxis and increasing online shopping and delivery.

The city takes a holistic approach to TDM and runs an official TDM programme, covering behaviour change, disincentives (such as congestion charging and parking reform), and a new Healthy Street Agenda.

The latter approach has been internationally celebrated and is one of London's more innovative TDM policies. Described as 'a system of policies and strategies to help Londoners use cars less and walk, cycle and use public transport more', the agenda 'puts human health and experience at the heart of planning the city' (London Assembly, 2019).

The theory behind the approach is that if every Londoner walked or cycled for 20 minutes a day, the National Health Service would save £1.7 billion in treatment costs over the next 25 years.

The focus areas enabled a broad analysis of different approaches to TDM, as well as more in-depth investigations of particular policies and initiatives.

The research was not limited to official TDM programmes, but extended to a range of TDM interventions carried out within the jurisdictions. It also recognised that there were different layers of TDM strategies, and that some will provide a foundation for others, in order to bring about travel behaviour change, as shown in the following diagram.

TDM strategies and their travel impacts and outcomes

Policies

(investment, tax, development policies, etc)



Programmes and projects

(commute trip reduction, transportation management associations, active transport planning, etc)



Incentives

(improved travel options, road and parking pricing, flexible work hours, etc)



Travel impacts

(mode shifts, changes in destination and departure, etc)



Outcomes

(reduced traffic congestion, parking cost savings, consumer savings, traffic safety, emission reductions, etc)

Source: Diagram adapted from adapted from Litman, T (2019) Victoria Transport Policy Institute: Online TDM encyclopedia. Available at: www.vtppi.org/tdm/

CRITICAL INSIGHTS

The research identified seven critical insights into the practice of TDM generally.

TDM goals, objectives and targets need to be clearly defined and communicated

The cities had various reasons for implementing TDM policies, and the transport goals they formulated tended to strongly influence the TDM strategies they adopted.

The term TDM is used inconsistently

There is no single definition or scope for TDM, which can create confusion over its roles in transport and land use planning.

To maximise effectiveness, it is critical to integrate and prioritise TDM principles into policies and planning activities

All of the case study cities were taking an integrated approach (rather than implementing TDM as a special programme after the basic planning is complete), which appears to be the most effective way to achieve TDM goals.

Reliable alternative transport infrastructure and services are needed for modal shift

For outreach and implementation programmes to successfully change travel behaviour, there must be infrastructure and services in place to support the use of alternative sustainable transport modes (public transport, walking, cycling).

There are no silver bullets when trying to change travel behaviour on a large scale

The most effective programmes combine improvements to transport options and incentives for travel behaviour change. Each strategy comes with a cost, be it money, political capital, time or a combination of these.

Major events or construction projects are an opportunity to trial TDM strategies and can lead to long-term travel behaviour change

Many of the cities had used major events or disruptions to test new TDM strategies, which were often considered successful and made permanent. Public acceptance often increases after users experience these strategies.

Persuasive technologies can influence travel behaviour and come with both benefits and challenges

While new services and technologies (such as personalised persuasive technologies, social networking, gamification, Mobility as a Service, and other app-based projects) offer new opportunities for TDM, they also raise security and equity of access challenges. As a result, they require careful planning to minimise their risks and maximise their benefits.

TDM policies need to account for emerging mobility trends and services

Emerging trends and services (including ride hailing, the sharing economy, Mobility as a Service, e-commerce and associated deliveries, integrated navigation and payment apps, and autonomous vehicles) are affecting demand for travel modes in each of the cities profiled in the research. While they can support TDM by providing convenient alternatives to car travel, they can also increase total vehicle travel and congestion, and require careful analysis and planning.

Overall, the research highlighted the importance of clearly defining TDM goals (what an organisation ultimately wants to achieve), objectives (specific ways to achieve goals), and targets (measurable outcomes to be achieved). Having a clear understanding of these matters will help organisations evaluate potential TDM strategies, organise TDM programmes, measure performance, and communicate the value of TDM to diverse stakeholders.

While earlier TDM programmes tended to have a limited set of goals, such as traffic and parking congestion reductions, the research points out that these should now be expanded to reflect the many benefits that TDM can potentially provide. These include important co-benefits such as improved mobility for non-drivers, reduced pollution emissions, improved public health, sustainability and community resilience.



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