

## **Fertile Ground or Barren Soil? Lessons from Corporate Ecological Responsiveness for Workplace Travel Management**

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### **1.0 Introduction**

Internationally, Workplace Travel Management (WTM) has been a key component of travel demand management oriented transport policy and research for decades (e.g., Schreffler 1996; Bradshaw & Lane 1997; Hole 2004; DfT 2005a; DfT 2005b). However, this field has, until recently, attracted significantly less attention in Australia, despite the long recognition that workplaces are major trip generators (e.g., Hynes & Rose 1998; Black, Mason & Stanley 1999). The propagation of travel demand management programs, such as TravelSmart (e.g., Harbutt 2004), as important components of Australian urban transport strategies since the 1990s has prompted substantial research and interest in the field of behavioural science, as a consequence of needing to understand better the psychology of travel behaviour and change motivations. This has been in addition to the wealth of research on the implications of urban form and structure and transport infrastructure accessibility on travel demand. While these understandings are essential for the development of effective travel behaviour response strategies throughout the community, there has been much less research on the influence of internal organisational dynamics in influencing both travel behaviour and opportunities for workplace travel change. It would seem that, to successfully effect workplace travel behaviour change, the internal dynamics of organisations need to be much better understood.

Further, in an era of increasing business interest in ecological sustainability initiatives, transport planners and analysts are progressively recognising opportunities to engage organisations in workplace travel behaviour change. A number of external pressures on business (such as a surge in global and community concern about global warming, the rising cost of traffic congestion, and hikes in fuel costs) present distinct opportunities to garner business support for changing travel and transport practices. While such external pressures on organisations may indeed play a role in alerting organisations to the need to think about doing things differently (including consideration of more sustainable workplace travel practices), the international literature on corporate environmental responsiveness suggests that it is internal organisational factors that largely determine the degree of voluntary take up of such initiatives, rather than enhanced sustainability thinking driven by external pressures. That is, organisations themselves need to demonstrate a predisposition for, and organisational dynamics that support, travel behaviour change and sustainable transport initiatives.

Drawing on the experience of recruiting organisations to participate in a study of WTM as part of a doctoral research project by the first author and what is known in the literature on corporate ecological responsiveness, this paper explores the role of internal organisational factors in influencing responsiveness to, and successful adoption of, sustainable business practices (including WTM). It is argued that an enhanced understanding of internal determinant factors for organisational responsiveness to change may enable: *i*) better identification of 'predisposed' or 'proactive' firms; *ii*) better discernment of success/ failure factors; and *iii*) tailoring of programs to better fit with organisational contexts.

## **2.0 Learning from the recruitment of organisations: the importance of organisational factors in shaping predisposition to Workplace Travel Management.**

Before proceeding with a discussion of the recruitment experience of the aforementioned project and its role in creating an interest in internal organisational dynamics and corporate responsiveness, it is necessary to briefly outline the concept of WTM and its common measures, and to explain the larger project in which the discussion is set.

### **2.1 Defining Workplace Travel Management**

WTM is a travel behaviour intervention discipline aimed at shaping the travel behaviours of employees within trip generating organisations (workplaces) by encouraging a modal shift away from solo car use (especially solo car use) for work purposes (trips to and from work and trips associated with work tasks) or reducing the need for car based trips. Essentially, WTM, through the operation of workplace travel plans (WTPs), requires managers and employees to work together to increase the proportion of non-car and multiple-passenger transport options for all work-related travel. Common elements of WTPs include conducting staff travel surveys, car park management, reviewing car subsidies, financial or other incentives for those who do not drive to work, more efficient ways of using cars (eg. car sharing and pooling), public transport initiatives, cycling incentives and facilities, pedestrian facilities, and flexible working hours (Rye 1999a; Coleman 2000).

Internationally, WTM is well established in transport policy, particularly in Europe where programs are both area- and site-specific (e.g., Watts & Stephenson 2000; Energy Saving Trust 2004; Pfizer 2005; Vodafone 2005). The evolution of WTM in Australia is less advanced, with notable state-based programs operating in Victoria and Western Australia (Department of Infrastructure 2006; Department for Planning and Infrastructure 2006). In Sydney, WTM has received relatively modest attention, despite being contained in transport planning policy under the banner of TravelSmart (NSW Department of Planning 2005).

### **2.2 About this Workplace Travel Management study**

The arguments presented in this paper are based on the development of ideas and research undertaken as part of a doctoral research project by the first author titled *Workplace Travel Plans: Opportunities, Barriers and Policy Options for the Sydney Region*. This larger study investigates the desirability and feasibility of WTPs according to organisations, employees and government policy makers in the Sydney Metropolitan Region (SMR), and enquires as to whether such plans can appreciably reduce overall work related travel by car (and thus total vehicle kilometres travelled) in the region.

The study targets medium to large organisations (50 or more employees) in both the public and private sectors from four major employment zones<sup>1</sup> within the SMR for participation in the investigation. Each employment zone has been chosen for their relatively good level of public transport service and accessibility in order to maximise potential for alternative travel choices to the motor vehicle. The research draws on triangulated data sourced through: *i*) a qualitative opinion survey of policy makers, transport planners and transport experts; *ii*) qualitative interviews with management of participant organisations to understand managerial attitudes to WTM, and *iii*) responses from an online survey of employees from participant organisations about their travel behaviour and their opinions on the feasibility of a

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<sup>1</sup> The four employment zones are: *i*) Parramatta; *ii*) North Ryde; *iii*) North Sydney/ St Leonards; and *iv*) Ultimo/ Pyrmont.

hypothetical operation of WTM at their workplace. The analysis of the data collected is currently ongoing and discussion of the findings is beyond the scope of this paper. However, the process of recruiting organisations to participate in the project raised some interesting issues, and these form the basis of this paper.

### 2.3 Lessons from the workplace recruitment process

Over the period between September 2006 to April 2007 some 134 medium to large organisations distributed across the four employment zones in Sydney were identified as potential participants and were invited to participate in the study by email and telephone. Of these, 26 organisations either did not respond at all to the invitation or did not facilitate further communication beyond reception/front desk, leaving 108 organisations with which a second stage of communication about the study and their potential participation occurred. Of these, 85 organisations declined the invitation to participate and 12 agreed to participate but later withdrew, leaving a total of 11 participant organisations. All responses by contact organisations were logged and a pattern of reasons for non-participation or participation could be gleaned. Those organisations that declined involvement shared relatively analogous reasons for non-participation. Overall, the responses for participation or non-participation were consistent with a number of themes. Table 1 summarises the responses according to these themes and their frequency in accordance with participation status.

**Table 1 Responses of contact organisations**

Participation Status	Reasons Given & Frequency (may be more than one reason given)*
<b>Declined invitation to participate (85)</b>	<ul style="list-style-type: none"> <li>• Organisation not interested (48)</li> <li>• Time and resource constraints prohibit participation (40)</li> <li>• Lack of support from top management and/or employees (27)</li> <li>• Lack of knowledge of organisational change for sustainability (23)</li> <li>• Could not see benefits to the organisation (21)</li> <li>• Organisation does not deal 'directly with public' or with other external elements on these types of issues (6)</li> <li>• Outside normal business practice (4)</li> </ul>
<b>Accepted invitation to participate but later withdrew (12)</b>	<ul style="list-style-type: none"> <li>• Lack of support from top management(9)</li> <li>• Time and resource constraints prohibit participation (7)</li> <li>• Lack of managerial discretion [authority to participate] (3)</li> <li>• Employees not interested in such projects (2)</li> <li>• Contact person changed position or left organisation (2)</li> </ul>
<b>Accepted invitation to participate and participated (11)</b>	<ul style="list-style-type: none"> <li>• Managerial support and discretion (11)</li> <li>• Have existing environmental management/citizenship programs - possibilities for integration (11)</li> <li>• Top management support (10)</li> <li>• Employee support and interest (8)</li> <li>• See benefits of 'community' engagement (7)</li> <li>• Have resources and capabilities (7)</li> </ul>

*\*Note: The number of organisations for each participation status and the frequency of responses do not correspond as several reasons may have been given by each respondent organisation.*

Organisations that declined participation overwhelmingly indicated a reluctance to participate due to either a lack of interest in, or resources and top management support for, such projects. Failure to perceive any organisational benefits of investigating the status of

workplace travel behaviour and/or workplace travel management opportunities also ranked highly with non-participant organisations. For organisations that initially accepted and then withdrew from the study at a later stage, lack of support from top management for such initiatives and time and resource constraints were cited as the dominant reasons for withdrawal from the study.

Conversely, participant organisations demonstrated a relatively homogenous set of responses, predominantly related to the existence of managerial concern and discretion (interest in and authority to decide upon participation), and the existence of antecedent programs relating to environmental management and control systems (e.g., energy saving and recycling programs, triple bottom line reporting, and carbon reduction initiatives). Support from top management and employees, 'slack' or available resources and capabilities, and a sense of community obligation and citizenship also featured significantly in responses.

In coding and analysing these responses, an important caveat must be offered. One cannot be conclusive about the rationale behind the contact person's response for each contact organisation. Many reasons may be inherent in the response given and assumptions about the organisation itself cannot be definitively made. For instance, lack of top management support, as cited by both groups of non-participants, may not be present within the organisation in reality, and responses from individuals may indicate a willingness to 'get off the phone' rather than any true indication of motivations for non-participation. However, the dominance of internal organisational factors in driving willingness to participate became clearly apparent during the coding of this data as opposed to concern about external factors (such as competitive pressures, the imposition of increasing fuel costs on the organisation's business and/or their employees, the cost of traffic congestion, or regulatory environments), which did not feature overtly in the initial responses of contact organisations. This catalysed interest in the role of internal determinant factors for corporate responsiveness to a sustainability initiative such as a WTM program, and raised two key questions:

- i. What factors contribute to one organisation being more likely to participate and succeed in WTM than another?
- ii. What are the implications of these factors for transport policy and the design and implementation of WTM programs?

To address these questions, we look to the body of international literature to ascertain the relative importance of organisational factors in shaping corporate ecological responsiveness and, in turn, to think about potential influences on responsiveness to WTM initiatives.

### **3.0 Determinant Organisational Factors of Corporate Ecological Responsiveness**

Analysis of organisational factors driving corporate responsiveness to sustainability initiatives has been the focus of a considerable body of literature over the past two decades (e.g., Post & Altman 1994; Arora & Cason 1996; Aragón-Correa 1998; Sharma & Vredenburg 1998; Henriques & Sadorsky 1999; Bansal & Roth 2000; Buysse & Verbeke 2003; Fernández, Junquera & Ordiz 2006; Murillo-Luna, Garcés-Ayerbe & Rivera-Torres 2007). It is recognised that a limited body of work has been undertaken directly addressing the influence of internal organisational factors on WTM (e.g., Bradshaw 1997; Rye 1999b; Coleman 2000; Rye 2002; Hendricks 2004). This work has largely been narrow in focus (e.g., a strict focus on organisational culture or managerial support) and does not provide a complete picture of key organisational dynamics shaping implementation of change programs such as WTM. Therefore, we turn to the body of literature cited above as it provides a strong empirical and

theoretical base for a more holistic exploration of the key organisational factors for corporate responsiveness or 'proactivity' to sustainability initiatives. It must also be recognised that this literature focuses on corporate *ecological* responsiveness or corporate proactivity to *environmental* initiatives. The motivation for interest in WTM opportunities may be more than for environmental benefit. Indeed, some research has suggested that WTM is not necessarily employed for environmental reasons, but rather for strictly operational reasons such as estate management issues (e.g., employee parking restrictions), expansion or relocation of the business, or broader planning requirements (Potter, Rye & Smith 1999; Rye 1999b; Rye 2002). However, these studies do not dismiss the role environmental motivations play in shaping travel change program adoption and maintenance and note particular differences in motivations between different contexts (e.g., location and time). Furthermore, WTM is commonly enacted, both here and abroad, through programs titled "Green Transport Plans" or "Green Commuter Plans" (DfT 2005a; Department of Infrastructure 2006; Department for Planning and Infrastructure 2006). This would indicate a broader policy objective for environmental improvement and generates the perception of the environment being at the heart of WTM. For these reasons, and for the purposes of this paper, the body of literature dealing with corporate ecological responsiveness is employed to explore how internal organisational factors might shape business responsiveness to sustainability initiatives such as WTM.

Gonzalez-Benito and Gonzalez-Benito (2006: 88) define environmental proactivity, or corporate ecological responsiveness, as the "voluntary implementation of practices and initiatives aimed at improving environmental performance". As previously mentioned, external factors in an organisation's operating environment, such as the opportunity cost of environmental investment, regulation and competitive pressures, can impact upon the degree of this responsiveness, particularly in relation to stimulating managerial support. However, as Murillo-Luna, Garcés-Ayerbe and Rivera-Torres (2007) demonstrate in their study of 240 firms in Spain, internal organisational factors, including financial, organisational and/or strategic capabilities, play a more important role in shaping environmental proactivity.

Subsequently, this paper will focus on four key internal organisational determinant factors of corporate ecological responsiveness: *i*) managerial attitudes and strategic inclusiveness; *ii*) organisational culture; *iii*) organisational structure; and *iv*) organisational capabilities and relationships. These factors feature prominently in the literature and represent a relatively holistic interpretation of organisational dynamics. Before exploring the role of these variables, it must be noted that this paper does not seek to be conclusive about the total range or material impact of internal organisational factors influencing responsiveness, but rather aims to provide an overview of key factors identified in empirical studies from the literature. It must also be noted that these factors are interdependent and present important relationships with each other. As Sharma, Pablo and Vredenburg (1999: 104) state, "one factor alone is not sufficient to create a particular issue interpretation, culminating in a specific environmental responsiveness strategy".

### **3.1 Managerial attitudes and strategic inclusiveness**

Managerial attitudes to environmental improvement programs play a central role in shaping initiative acceptance, adoption and development. Managerial support and commitment feature significantly in empirical studies of corporate environmental proactivity, and the studies' findings logically maintain a positive relationship between attitudes and successful implementation and continuation of environmental initiatives. It is this internal organisational variable to corporate environmental responsiveness that is most predisposed to the external operating environment in which the manager and the organisation function. As Fernandez, Junquera and Ordiz (2006: 264) suggest, "management adopts a certain position faced with external pressures, depending on to what extent environmental initiatives are forced by the

regulation and to what extent other stakeholders encourage the management towards the ideal of sustainable development.” The social influence exerted by government agencies, community groups, the media and primary stakeholders (e.g., suppliers, competitors, customers) generate a level of understanding and support for an environmental initiative (Bansal & Roth 2000; Cordano & Frieze 2000; Sharma 2000). This, in turn, may shape managerial perception of the initiative as either a potential benefit or threat. The empirical work of Sharma, Pablo and Vredenburg (1999), Sharma (2000) and Del Brio and Junquera (2003) found that this opportunity/ threat perception largely shaped environmental responsiveness, as the categorisation of initiatives along these lines is “salient for cognitions and actions” (Sharma, Pablo & Vredenburg 1999: 100); that is, it directs knowledge acquisition and performance outcomes.

However, managerial perception and support may, in reality, play a less important role than ideological commitment in shaping corporate responsiveness to an environmental initiative. Petts, Herd and O’heocha (1998) debate whether simply supporting and possessing a positive perception of an environmental initiative can actually lead to long term program effectiveness. They argue that personal managerial commitment to environmental programs is a more important success factor. Indeed, Bansal and Roth (2000: 723) found that whenever “concerns for the natural environment are based on a compelling social belief that is embodied in a charismatic and powerful manager, a firm will be ecologically responsive.” Banerjee (2002) examines this proposition by forwarding a two-dimensional construct of managerial concern: *internal* concern and *external* concern. Internal concern relates to the level of inherent environmental concern an individual has, its personal relevance, and the feeling of a sense of connectedness with nature. External concern mainly relates to external issues such as economic trade-offs and environmental regulation. Banerjee (2002) shows how the correlation between internal environmental concern and environmental behaviour is significantly higher than between external concern and behaviour. Thus, the challenge for bodies seeking to roll out a corporate environmental initiative is to stimulate this internal concern for the environment and commitment to the particular benefits of the program (this will be discussed in the following section).

Managerial attitudes may also be central to the degree of ‘strategic inclusiveness’ of organisations; that is, the ability and efforts of a manager to integrate environmental initiatives into higher-level business strategy and align this strategic thinking across units (Post & Altman 1994; Aragón-Correa 1998; Bansal & Roth 2000; Murillo-Luna, Garcés-Ayerbe & Rivera-Torres 2007). The work of Cordano and Frieze (2000) and Banerjee (2001) highlight the importance of integrating environmental approaches into higher-level corporate strategy, as those approaches that are only integrated at lower functional or operational levels tend to produce inferior outcomes and less responsiveness to the initiative. Firms that have a high degree of strategic inclusiveness of environmental approaches tend to commit more significantly to knowledge development and resourcing of initiatives, and generally ensure alignment and communication of strategic thinking across business units (Post & Altman 1994; Fernández, Junquera & Ordiz 2006).

Despite some dissonance in the literature regarding the relative importance of managerial perceptions, it is evident that managerial attitudes and strategic inclusiveness represent critical organisational variables to environmental responsiveness and, hence, critical variables to the adoption and successful development of environmental initiatives.

### **3.2 Organisational culture**

Organisational culture may be understood as a “system of shared meaning within an organisation” (Robbins et al. 2000: 90) or a particular set of values, beliefs, norms, understandings and ways of thinking which provides organisational members with a sense of

organisational identity and meaning, ultimately guiding the behaviours and actions of members (Daft 2001; Jones 2004). It informs sense making and interpretation and generates a “collectively created’ common frame of reference” (Mahler 1997: 527).

Organisational culture is a critical determinant of environmental responsiveness as it acts to legitimise particular issues and initiatives. The degree to which an issue or initiative is legitimised by the culture determines the degree to which it is supported and nurtured. Sharma and Vredenburg (1998: 742) suggest that environmentally responsive companies provide an “organizational context to support experimentation”, while Benn, Dunphy and Griffiths (2006: 161) demonstrate that environmental responsiveness requires the “reinvention of organisational norms and the development of innovative capacity.” Given that culture guides the “analysis and debate about solutions to acknowledged problems” (Mahler 1997: 536), a culture of experimentation and change acceptance must be present to improve the likelihood of initiative success (such as environmental sustainability initiative success). Müller and Siebenhuner (2007) assert that organisational culture is central to learning and that an orientation towards organisation-wide learning creates an openness to absorb new concepts and projects. Shared learning processes, through information exchange, can result in a reorientation of frames of reference, ultimately perpetuating desired actions and behaviours. Organisational learning also implies change in response to past experience. The body of literature on corporate environmental responsiveness emphasises the importance of past experience in shaping outcomes of subsequent initiatives (Post & Altman 1994; Mahler 1997; Petts, Herd & O’heocha 1998; Fernández, Junquera & Ordiz 2006). Arora and Cason (1996) show how participation in one voluntary environmental program increases the probability of participation in another. Kai-ming Au and Enderwick (2000: 273), in their study of technology adoption in the Hong Kong manufacturing sector, found that the “more experience a prospective adopter had, the more likely that a favourable attitude towards adoption would be formulated.” This may relate to the impact of familiarity on change acceptance, but further empirical work is needed in this area. What can be argued is that the degree to which past experience translates into action depends on organisational learning processes and the openness of an organisational culture to this learning.

The role of culture in supporting environmental ‘champions’ or ‘change agents’ and, equally, the role of these champions in shaping culture also receives considerable attention in the literature. Several studies of corporate environmental responsiveness highlight the imperative for clearly identifiable champions at different levels throughout the organisation for successful implementation and continuation of an environmental initiative (Post & Altman 1994; Petts, Herd & O’heocha 1998; Bansal & Roth 2000). The effectiveness of the champions’ efforts is largely dependent upon a supportive organisational culture and management and “a strong appreciation of the problems that every business unit or operations manager faces” (Post & Altman 1994: 78). These champions are also critical to organisational cultural change and development, and can stimulate value and normative shifts to shape behaviours through information sharing and learning processes.

### **3.3 Organisational structure**

Organisational structure is recognised as a critical factor in the generation of corporate environmental responsiveness as it performs a fundamental coordination and control function that underpins and directs actions and behaviours (Daft 2001; Jones 2004; Müller & Siebenhuner 2007: 236). Organisational structure is often characterised as having four key components: centralisation (the degree to which decision making is concentrated in a single point, usually top management), formalisation (the degree to which rules and procedures dictate employee behaviour), complexity (the extent of horizontal and vertical differentiation), and coordination (the degree to which the goals and actions of an organisation’s units are integrated to achieve organisation-wide objectives) (Robbins & Barnwell 2002). Of these, the

literature on corporate environmental responsiveness primarily centres on the impact of centralisation and coordination in fostering proactivity towards environmental initiatives.

Buyse and Verbeke (2003) argue that a decentralised organisational structure, in which all managers and employees are afforded decision making input and authority, is the single most important determinant factor of environmental responsiveness. This empowerment of organisational members may be realised through training and the provision of opportunities for influence and comment. Enhanced managerial discretion, including that for line managers, and employee involvement facilitate a heightened sense of control over the change process and, consequently, increase commitment and responsiveness to environmental initiatives (Sharma, Pablo & Vredenburg 1999). Decentralisation provides a means for individuals within an organisation to act on the environmental values they might hold, forward new ideas and solutions, and share responsibilities for perceived problems. It also assists in the breaking down of functional divisions and supports organisational learning for cultural change (Petts, Herd & O'hEocha 1998; Bansal & Roth 2000; Müller & Siebenhüner 2007). The imperative for decentralisation is emphasised by Petts, Herd and O'hEocha (1998: 715) who assert that "[c]orporate environmental programmes are thought to have little chance of success if employees are not adequately motivated and involved in decision making as well as implementation."

A concerted effort to coordinate environmental activities within organisations has also been shown to increase the likelihood of effective environmental change (Sharma 2000; Melnyk, Sroufe & Calantone 2003). The development of environmental policies, mission statements and long-term plans provide a frame of reference for employee decisions and actions, and the implementation of a formal environmental control system (such as an environmental management system) ensures better alignment of member behaviour with organisational objectives. A highly coordinated organisational structure acts to reduce uncertainties and ambiguities regarding the performance expectations of top management and can foster more rapid organisational learning (Sharma, Pablo & Vredenburg 1999). Furthermore, Melnyk, Sroufe and Calantone (2003) observed a direct linkage between the existence of a formal environmental management system and the consideration of more environmental alternatives and practices.

The importance of open communication and information flows to corporate environmental responsiveness should also be recognised. Setting in place communication channels focused on regular dissemination of 'top-down' strategic and performance information, coupled with opportunities for feedback in the form of 'bottom-up' suggestions and queries, regarding the environmental initiative have been shown to reduce informational ambiguity and hence heighten long term commitment to the change program (Sharma, Pablo & Vredenburg 1999; Fernández, Junquera & Ordiz 2006).

### **3.4 Organisational capabilities and relationships**

Three important variables must be addressed in relation to organisational capabilities and relationships and their impact on corporate environmental responsiveness. These are: organisation size and resource availability, capabilities in the form of skills and knowledge, and stakeholder engagement and relationships.

Gonzalez-Benito and Gonzalez-Benito (2006: 91-92) contend that significant support exists for a positive relationship between organisation size and environmental responsiveness. They state that large companies: have more resources available to dedicate to environmental initiatives; receive more pressure from their social and economic environment and are commonly the principal focus of local government and environmental non-government organisations (NGOs); and are often divided into sub-cultures of environmental



concern. It is further observed that the impacts of their actions are more tangible, increasing issue salience across the organisation. These factors, it is argued, foster heightened environmental responsiveness. For small to medium enterprises, environmental initiatives may be undermined by time, resource and skills constraints, and the perception of the initiative as being an additional burden (Petts, Herd & O'hEocha 1998; Condon 2004).

The availability of resources is another important determinant factor of corporate environmental responsiveness cited in the literature. Several studies stress the importance of 'space capacities' or 'organisational slack', arguing that those organisations working close to capacity demonstrate decreasing responsiveness to environmental initiatives (Henriques & Sadowsky 1999; Müller & Siebenhüner 2007). The availability of critical resources, that is those additional operating resources that allow for adaptation to change and experimentation with new processes, is shown to have a significant bearing on responsiveness (Fernández, Junquera & Ordiz 2006).

Nevertheless, organisations must not only have space capacities and critical resources to increase the effectiveness of environmental initiative implementation and development. Individual and collective capabilities in the form of skills and knowledge must also be present. A number of empirical studies have demonstrated the importance of issue-specific skills, and the building of skills through organisational learning across tiers and across time (Sharma & Vredenburg 1998; Benn, Dunphy & Griffiths 2006; Murillo-Luna, Garcés-Ayerbe & Rivera-Torres 2007). Fernandez, Junquera and Ordiz (2006) support this proposition and argue that 'individual entrepreneurial ability' (knowledge, skills and ability) is a key determinant factor of corporate environmental responsiveness.

Finally, significant evidence exists for a positive relationship between stakeholder engagement and environmental responsiveness. The building of collaborative relationships with organisational stakeholders (such as other organisations, government agencies, community groups, environmental NGOs, suppliers, and customers) was found to positively affect the relative success of environmental initiative uptake and development (Sharma & Vredenburg 1998; Henriques & Sadowsky 1999; Buysse & Verbeke 2003; Benn, Dunphy & Griffiths 2006). In fact, managerial perception of stakeholder importance to organisational effectiveness was found to be higher for firms engaged in voluntary environmental improvement programs (Henriques & Sadowsky 1999). Bansal and Roth (2000) cite 'field cohesion', or the proximity and density of relationships with stakeholders, as one of three critical variables to environmental proactivity, and this cohesion creates flow on effects through the organisation's culture and structure. Kai-Ming Au and Enderwick's (2000) study of technology adoption found that perceived adoption difficulty was positively related to the degree of support required. By increasing stakeholder support, perceived adoption difficulty is reduced, consequently improving the likelihood of implementation success.

#### **4.0 Implications for Workplace Travel Management**

The recognition of the importance of internal organisational factors for the adoption, implementation and maintenance of sustainability initiatives has important implications for the initiation and design of these programs. Moreover, if it is acknowledged that, as significant trip generators, organisations should be a central focus of policy and planning instruments to instigate travel behaviour change for sustainable outcomes, attention must be given to the role of organisational factors in shaping travel change initiative adoption and long term success. What can we learn from the extensive research into corporate environmental responsiveness and, indeed, other related studies? What role might the transport policy maker or planner play in engaging with these determinant organisational factors?

An appreciation of the role of organisational factors in shaping responsiveness to sustainability initiatives such as a WTM program may enable better identification of 'predisposed' organisations, thus: *i*) decreasing the likelihood of early program failure and consequential resource wastage, and *ii*) creating a network of relatively successful participant organisations to act as role models or initiative leaders for other potential participant organisations. Organisational factors such as size, resource availability, previous adoption and development of environmental policies and management systems, and the establishment of collaborative relationships with key stakeholders may point to a degree of organisational responsiveness to a sustainability initiative such as a WTM program. Furthermore, once a travel change program is implemented, knowledge of the role of organisational factors in shaping this implementation may, in some way, engender the ability to establish causality for program success or failure. These factors of program success and failure in relation to internal organisational variables could assist in furthering program learning and, hence, future program effectiveness. It must be noted that the identification of overt manifestations of these organisational factors may be difficult or impracticable. For example, how might one identify organisational culture barriers to program success when these seem intangible or indiscernible to an external agent? Closer attention to organisational theory may provide some insights into how these organisational factors might manifest. Additionally, organisational reporting and promotional information sources (such as annual reports, mission statements, and/ or website/s promoting existing sustainability initiatives) may provide some indication of managerial commitment and strategic attitudes, organisational culture, structure and relationships.

More importantly, the recognition of the importance of organisational factors in determining responsiveness to sustainability initiatives may enable transport policy makers and planners to assume a more active role in shaping WTM program success. A more dynamic engagement with these factors is possible by designing WTM programs to address particular weaknesses and foster particular strengths related to managerial attitudes and strategic inclusiveness, organisational culture, organisational structure, and organisational capabilities and relationships. This is not to suppose that substantial organisational change could be propelled by a travel behaviour change initiative (it would be excessive to suggest that a well-designed WTM program could comprehensively change such factors as organisational culture or structure). Rather, the challenge is to tailor programs to better engage with organisational factors to increase the likelihood of successful implementation and maintenance. Building in strategies to support internal organisational strengths and to address organisational weaknesses may assist in acceptance and perpetuation of a WTM program. While the larger doctoral thesis will delve deeper into the policy implications and role of government in supporting potential WTM programs, these strategies could include:

***Stimulating managerial support and commitment***

Given the importance of managerial concern and commitment in shaping the acceptance and diffusion of sustainability initiatives throughout the organisation, WTM programs should consequently seek to increase issue salience (relevance/ importance) through providing more detailed information about the environmental, social, economic and human health costs of private vehicle travel for work purposes (and, conversely, the benefits or savings from more sustainable travel practices). However, enhancing the perception that participating in a WTM program will be beneficial does not necessarily translate into actions without support and knowledge of how to proceed. As Petts, Herd and O'hEocha (1998: 713) argue, "behaviour has been seen to be related to the ability to take action". Therefore, a critical challenge for transport professionals in designing WTM programs is to demonstrate clear and practical steps that organisations and their managers can take to reduce these impacts, thus intensifying managerial perceptions of 'ability to act'. For example, program toolkits could include information on car pooling software, its application, and examples of how this software has been used in other organisations to promote a sense of managerial capacity to increase vehicle occupancy.

***Fostering 'strategic inclusiveness' and structural coordination***

Incorporating the broad initiative strategy into higher level strategies and coordinating employee decisions and actions across business levels and units has been shown to be fundamental to sustainability initiative success. For WTM programs, fostering strategic inclusiveness and coordination may best be achieved through the use of best practice examples of successful participant organisations and the methods they used for strategic inclusiveness and structural coordination. Thus, government agencies 'rolling out' a WTM initiative may provide information resources that include narratives from best practice organisations to demonstrate the steps taken to include the initiative strategy into organisation-wide strategies and to coordinate the process across functional units.

***Engaging organisational culture for program legitimisation***

Organisational learning is critical to cultural change and initiative acceptance and may be advanced through encouraging the establishment of employee forums on travel behaviour change and/or through periodic employee reviews of personal adaptation or perceptions of program effectiveness. Dissemination of results from forums and/or reviews provides a feedback system to assist learning and to shape frames of reference. Learning from past experience may be attended to through employee surveys (a common measure of WTM), in which attitudes to previous sustainability initiatives may be garnered. WTM program 'champions' or 'change agents' may require additional support in the form of information packages that could include: *i)* case studies of other change agents' strategies; and, *ii)* the establishment of networks with 'champions' in other organisations.

***Supporting decentralisation and open communication channels***

The importance of employee involvement throughout the organisation, to increase discretion and a resulting sense of control, may be supported through active encouragement of regular team or board-level committees, workplace forums, 'workplace challenges', or the development of a 'task force' on travel change involving a range of employees from across the organisation. An initial employee survey may be used to acquire perceptions of potential success or failure factors and how these could be advanced or avoided. Reducing information ambiguity to increase change acceptance may be achieved through promoting regular dialogue between managers and employees through newsletters and workplace meetings. This dialogue should include both strategic (e.g., new directions, and what management is doing about WTM) and performance (e.g., program results and future targets) information, and should recognise and praise individual or group performance meeting or exceeding performance criteria.

***Assisting organisational capabilities development***

Critical resources and skills are central to the success of a sustainability initiative. It would be unrealistic to suggest that government agencies administering the WTM program could offer substantial financial resources, so these resources may come in the form of toolkits and information packs. To build skills and knowledge, agencies could run seminars for representatives of participant organisations focusing on new ideas and methods, performance indicators and case studies.

***Contributing to enhanced field cohesion through facilitating collaborative relationships***

As was discussed in the previous section, field cohesion relates to the proximity and density of relationships with stakeholders. Transport planners and policy makers may be able to increase field cohesion through building 'area network ties' between organisations in significant trip generating commercial areas. Establishing an area-wide travel plan connecting individual WTPs may be realised through the creation of area forums and committees, an area representative on travel change, or more innovative techniques employing the internet for inter-organisational communications.

The strategies advanced above by no means represent a full range of possibilities for supporting internal organisational strengths and addressing internal organisational weaknesses, but may provide a starting point for consideration of the link between corporate ecological responsiveness and effective WTM. The challenge for transport professionals in developing WTM initiatives will be to build on these strategies so to increase the likelihood of successful adoption and development of such initiatives.

## **5.0 Conclusion**

In a time of increasing awareness of and concern for the environmental, human health, social and economic implications of business activities, transport planners and policy makers may have been presented with fertile ground upon which to work with organisations to effect travel behaviour change for ecological sustainability. With issues such as global warming, escalating fuel and travel costs, and burgeoning traffic congestion receiving considerable attention in the media and by businesses and the community as a whole, it could be argued that organisations may be more predisposed to participation in travel behaviour change initiatives to address the impacts of their motor vehicle travel to, from and at work. However, as we have argued in this paper, organisational involvement in WTM programs may not be primarily understood as a consequence of external pressure on business operations and management thinking. Internal organisational factors, such as managerial attitudes and strategic inclusiveness, organisational culture, organisational structure, and organisational capabilities and relationships, may play a more important role in shaping responsiveness to a WTM initiative.

Significant research questions arise from the premise of this paper, including: to what extent have internal organisational factors shaped the adoption and success of WTM initiatives in participant organisations in Australia? How might we better identify the outward manifestations of these organisational factors to distinguish predisposed organisations from those less likely to participate? How might we best tailor WTM initiatives to foster organisational strengths and address organisational weaknesses in relation to the acceptance and maintenance of these initiatives? Given the arguments forwarded in empirical studies cited in this paper, the failure to better engage with these issues may ultimately undermine any attempts to comprehensively and successfully effect actual change in workplace-related travel behaviour.

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