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Does a climate of trust enhance cross-functional relationships during new product development

Janette Rowland

University of Wollongong

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Does a Climate of Trust Enhance Cross-functional Relationships during New Product Development

A thesis submitted in fulfilment of the requirements for the award of the degree

DOCTOR OF PHILOSOPHY

From

THE UNIVERSITY OF WOLLONGONG

By

Janette ROWLAND, B.Com

Faculty of Commerce
School of Management and Marketing
2012
I, Janette Katrina Rowland, declare that this thesis, submitted in fulfillment of the requirements for the award of Doctor of Philosophy, in the Department of Marketing, University of Wollongong, is wholly my own work unless otherwise referenced as or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Janette Rowland
July 26, 2012
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Does a Climate of Trust Enhance Cross-functional Relationships during New Product Development

ABSTRACT

The working relationship between functional specialists at a New Product Development (NPD) project level has been examined in the literature for decades with the aim of understanding their impact on NPD success. The focus of much of this literature has been on “integration methods” which promote information sharing and interaction among participants, with other interpersonal considerations such as trust often being viewed as a “by product” of these approaches. Recent organisational research suggests that trust may play a more significant role in organisations than previously thought. Also evident in existing research is that “soft” tools such as “climate” and “trust” are not as readily apparent or measurable as other more traditional organisational mechanisms. The study presented in this thesis reconceptualises the climate of trust between the cross-functional specialists involved in NPD drawing on a collaboration integration framework to identify and refine the variables associated with a climate of trust. It uses a qualitative approach based on an explanatory case study method to propose a model of the antecedents and consequences needed to develop a climate of trust associated with positive NPD outcomes. It is the first time that the climate of trust is explicitly considered as to its impact on NPD outcomes. This study highlights the importance of understanding the complexities of organisational trust and the role that management play in creating an NPD environment conducive to the development of trust. The results reveal that the collective perceptions of the members of the NPD project team regarding faith in management, faith in the NPD process as well as the level of functional identification impacts on the development of a climate of trust within NPD, which in turn impacts on the collaborative behaviours of the individuals involved. If such a climate can be developed and nurtured, the potential outcomes are collaborative behaviours such as maximised cross-functional communication and cooperation, minimised cross-functional conflict and ultimately NPD success. The results also provide a greater understanding as to the management decisions and NPD process factors that impact on the perceptions required for the development of a climate of trust. A “toolbox” is provided as a guide to the types of mechanisms that managers can
implement to develop a climate of trust within NPD that will encourage collaborative behaviours and ultimately improve NPD success.
Acknowledgments

I sometimes wondered if I’d ever be writing this section. As with all PhDs it’s been a long and arduous voyage and there are so many that have buoyed me along the way. To my colleagues in “the best corridor in the university”, Venkat Yanamandram, Rodney Clark, Robert Grant and Matt Pepper for the many coffee breaks and walks and whines they endured or joined me in. To Jennifer Algie for getting me through the worst times, but mainly for sharing with me some of the best including her beautiful babies. I would like to acknowledge Professor Trevor Spedding who as my supervisor, then head of school and finally Dean of Commerce has continued to support me throughout this process, be it through teaching relief, funding or sage advice. Associate Professor Samuel Garrett-Jones for taking on my supervision quite late into the thesis, then reading every page to offer valuable insights that have shaped it into this final work. To my primary supervisor, Dr Elias Kyriazis. There is no doubt that without him I would not be here. He has been my mentor and guide throughout. Firstly encouraging me to begin a life in academia, then showing support, understanding, compassion and empathy as I tried to tread that difficult course between learning and growing professionally and maintaining a happy, healthy family home. To my beautiful sister and girlfriends who cared about my progress, but didn’t ask “so when will you be finished”, but instead supplied coffee, bubbles, a shoulder or whatever was necessary. Finally to my wonderful family. My mum and dad, Mandy and Isabella, who did everything they could, including many school runs and meals to ease my load so that I could move forward, never doubting that I would get there in the end. I would not only not be here, but would certainly not be the person I am today without their constant love and support. My darling husband, David and girls, Phebe and Mia (who will now address me as Dr Rowland), for being the lights of my life and the reason that all this is worthwhile!
Related Publications, Conference and Seminar Presentation

Refereed Conference Papers


Rowland, Janette and Kyriazis, Elias (2006), Understanding the Culture/Climate link in NPD research, ANZMAC2006, Queensland University of Technology, Australia


CHAPTER 1:  INTRODUCTION

The new product development (NPD) process plays a significant role in the success of many organisations. Accurately defining and developing new products to satisfy particular target markets can give companies a competitive edge as well as high sales and profit margins (Crawford and Di Benedetto, 2010). It is for this reason, that much attention has been focused on establishing successful new product development processes (Cooper, 1996, 2001; Griffin and Hauser, 1996; Page, 1993). The new products process is defined as “the procedure that takes the new product idea through concept evaluation, product development, launch and post launch” (Crawford and Di Benedetto, 2010, p.18). Despite this attention, the new product development process remains one of the most problematic within organisations (Wind and Mahajan, 1997). An underlying principle of the NPD process is teamwork. Ideally, the new products “team” will be cross-functional with individuals from marketing, R&D, engineering, manufacturing production, design, finance and other relevant functional areas (Crawford and Di Benedetto, 2010). A seminal study by Booz, Allen and Hamilton in 1968 found that failure rates for new products ranged from 33% to 86% depending on the industry. More recent studies have shown that there has been little or no improvement in new product success rates (Barczak, Griffin and Kahn, 2009; Page 1993). It is this lack of improvement that has led to studies being carried out in an attempt to determine the antecedents of both successful and unsuccessful new products (Cooper and Kleinschmidt, 2007; Ernst, 2002; Griffin and Page, 1993). One of the key contributing factors was found to be effective cross-functional relationships during the new product development process as they help prevent many of the causes of new product errors or failures. It is the role of these cross-functional relationships that will be considered in detail in this study.

The task of effectively integrating functional specialists during NPD activities has been the focus of NPD researchers and company management for many decades and still remains an elusive goal for many organisations. As early as the 1940s, Follet (1949) revealed that, in some cases co-ordination between departments depended merely on the “degree of friendliness” existing between the heads of departments. With many individuals from separate departments involved in the NPD process, creating a means of coordination which permits both effective specialisation and coordination has been a
constant management challenge (Lorsch and Lawrence, 1965). Even though the issue had been acknowledged, major research in this area was not initiated until the 1970s and managing the interface continues to be important to a firm’s success (Olson, Walker and Ruekert, 1995; Leenders and Wierenga, 2002). Research has clearly shown that effective functional integration does impact on new product success rates. There is extensive empirical evidence of a positive relationship between the level of functional integration and outcomes associated with NPD success such as the amount and utilisation of information exchanged (Ruekert and Walker, 1987; Griffin and Hauser, 1996; Ayers, Dahlstrom and Skinner, 1997; Song, Montoya-Weiss and Schmidt, 1997), conflict resolution and harmonisation (Ruekert and Walker, 1987; Griffin and Hauser, 1996; Ayers, et al. 1997), higher involvement by the functional specialists (Ruekert and Walker, 1987; Ayers, et al. 1997; Song, et al. 1997), the quality and efficiency of the NPD process (Griffin and Hauser, 1996; Song, et al. 1997) and higher overall cooperation and coordination of NPD activities (Griffin and Hauser, 1996; Song, et al. 1997).

Early studies into functional integration focused on determining interaction patterns between functional departments from the perspective of communication and cooperation without distinguishing between these factors conceptually or empirically. In these studies, integration was typically measured on a scale from high to low indicating the amount of communication and information sharing actually occurring between these functions (Gupta, Raj and Wilemon, 1986; Ruekert and Walker, 1987).

As the definition and measurement of integration continued to develop, several authors acknowledged the need to re-asses these measures of integration to reflect the distinct and complex nature of the elements involved in effective cross-functional relationships (Kahn, 1996; Jassawalla and Sashittal, 1998). Kahn (1996) developed proposed and empirically tested the construct of “interdepartmental collaboration” that aims to combine the formal, transactional “interactions” previously considered with the informal, cooperative relationships also associated with NPD success. This view defines collaboration as:
“An affective, volitional, mutually shared process where two or more departments work together, have mutual understanding, have a common vision, share resources and achieve collective goals” (Kahn, p.139)

This view of collaboration provides a higher level, more intense cross-functional outcome than integration that better explains the complex relationships and interactions between departments than does a strict focus on interaction variables such as the amount of communication (Moenaert, Souder, DeMeyer and Deschoolmeester, 1994; Ruekert and Walker, 1987), cooperation (Song, et al. 1997), information sharing and involvement (Song and Parry, 1993; Gupta, Raj and Wilemon, 1986). Kahn (1996) found that collaboration between departments had a more positive effect on new product development performance than did the interaction variables.

Similarly, Jassawalla and Sashittal (1998) found that even when functions are highly integrated by a large degree of interaction, collaboration between the functions is a “higher level” linkage with “participants who achieve high levels of at-stakeness, transparency, mindfulness and synergies in their interactions” (p. 240). These constructs capture the realities of relationships and interactions as being more complex than those previously measured by integration researchers. Accordingly, this thesis examines collaboration and its associated behaviours as the most appropriate focal construct for the study of cross-functional relationships. The following section discusses the traditional approaches to integration and then propose that the focus change to more organic and thus collaborative integration mechanisms that are more suited to modern NPD working environments.

### 1.1 Traditional Integration Methods in NPD

Effective inter-functional coordination of NPD activities often requires that senior management design and administer mechanisms to control and integrate work activities and resource flows between functional departments (c.f. Galbraith and Nathanson, 1978; Mintzberg, 1979) to successfully develop new products. A number of alternative structures have been suggested ranging from traditional bureaucratic structures that coordinate inter-functional interactions to more organic structures that are more participative in nature where team members have relatively more autonomy in a loosely coupled structures (c.f. Burns and Stalker 1961). Olson, Ruekert and Walker (1995)
suggests that organic structures e.g., design teams and design centres, have distinct benefits for NPD work in modern organisational structures by facilitating participative decision making, consensual conflict resolution, and open communication between groups and individuals. An outcome of this is to “create an atmosphere where innovative ideas are proposed, critiqued, and refined with a minimum of financial or social risk” (Olson, Ruekert and Walker, p.51).

As the NPD integration literature has evolved, the cross-functional team has been recognised as a distinct function at the epicenter of NPD activity (Brown and Eisenhardt, 1995). As such, research is emerging into how to improve the effectiveness of these teams in an NPD context. These studies consider conditions within the group, including inter-personal factors, along with the more traditional external organisational factors usually associated with integration, such as structure, communication and problem-solving. Though largely conceptual, their findings support the need for management to foster positive inter-group relationships to facilitate NPD success (Nakata and Im, 2010; Brockman, Rawlston, Jones and Halstead, 2010). These perspectives highlight the link between choice of integration mechanisms by senior management and the development of an atmosphere conducive to the positive working behaviours between functional specialists required for successful NPD work.

Griffin and Hauser (1996), in a comprehensive review of over 20 years of integration literature identified six integration techniques or lateral linkage devices that could be used to improve cross-functional integration: relocation and physical facilities design; personnel movement; informal social systems; organisational structure; incentives and rewards; and formal integrative management processes. Their conceptualisation highlights the “people” aspect of achieving affective functional integration by focusing attention on organisational factors, such as incentives and rewards and informal social systems that directly influence the behaviours of individuals involved in the NPD process. The impact of these devices on NPD success were tested by Leenders and Weiranga (2002) with their results suggesting that although all these mechanisms have a positive effect on integration, they do not necessarily lead to NPD success. Of particular interest is the finding that formal interactive management processes, though most positively associated with integration, had a direct negative relationship with new product success. Conversely, having equal remuneration and career opportunities was
positively associated with both integration and NPD performance. These findings highlight that integration, in the traditional sense, is not sufficient to ensure NPD success. Table 2.1 shows a summary of all the lateral linkage devices in the literature that have been reviewed for this thesis.

What emerges from a review of the integration literature is that while there is some agreement as to the types of integration mechanisms used in NPD, there is considerable confusion regarding their expected outcomes in terms of how to achieve functional integration. Therefore, further research is required on other organisational factors that lead to the collaborative behaviours required by individuals involved in the NPD process to facilitate NPD success. This study considers the emerging “collaboration” view of performing organisational activities as the most desirable processes for NPD success. This study also supports the need to consider how the perceptions of individuals involved in NPD impact on the level of collaboration achieved and subsequent NPD success. As such, other organisational studies will be considered alongside the integration literature to go beyond the traditional approaches of using mechanistic integration devices to develop a framework that explains the modern NPD task environment faced by management and the decisions that managers can make that are relevant for effective NPD outcomes.

Table 2.1: A Summary of Proposed Integration Mechanisms in the Literature Reviewed

<table>
<thead>
<tr>
<th>Integration Mechanisms</th>
<th>Authors</th>
<th>Empirically Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relocation and physical facilities design Collocation</td>
<td>Griffin and Hauser 1996</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Maltz, Souder and Kumar, 2001</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Maltz and Kohli, 2000</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Leenders and Wierenga 2002</td>
<td>Yes</td>
</tr>
<tr>
<td>Personnel movement</td>
<td>Griffin and Hauser 1996</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Moenaert and Souder, 1990</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Leenders and Wierenga 2002</td>
<td>Yes</td>
</tr>
<tr>
<td>Spatial proximity Inter-functional distance</td>
<td>Maltz and Kohli, 1996</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Maltz, 1997</td>
<td>Yes</td>
</tr>
<tr>
<td>Integration Mechanisms</td>
<td>Authors</td>
<td>Empirically Tested</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td><strong>Informal social systems</strong></td>
<td>Olson, Walker and Ruekert, 1995</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Informal activities</strong></td>
<td>Griffin and Hauser, 1996</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Social orientation</strong></td>
<td>Maltz, 1997</td>
<td></td>
</tr>
<tr>
<td><strong>Individual liaisons</strong></td>
<td>Maltz and Kohli, 2000</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Culture</strong></td>
<td>Leenders and Wierenga, 2002</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Organisational structure</strong></td>
<td>Griffin and Hauser, 1996</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Leenders and Wierenga, 2002</td>
<td></td>
</tr>
<tr>
<td><strong>Incentives and rewards</strong></td>
<td>Gupta, Raj and Wilemon, 1986</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Rewards structure</strong></td>
<td>Griffin and Hauser, 1996</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Shared incentives</strong></td>
<td>Maltz, 1997</td>
<td></td>
</tr>
<tr>
<td><strong>Evaluation and reward procedures</strong></td>
<td>Song, Montoya-Weiss and Schmidt, 1997</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Performance measurement</strong></td>
<td>Maltz and Kohli, 2000</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Compensation Variety</strong></td>
<td>Leenders and Wierenga, 2002</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Formalisation</strong></td>
<td>Olson, Walker and Ruekert, 1995</td>
<td>Yes</td>
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<tr>
<td><strong>Formal integrated management process</strong></td>
<td>Griffin and Hauser, 1996</td>
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</tr>
<tr>
<td><strong>Centralisation</strong></td>
<td>Maltz, 1997</td>
<td>Yes</td>
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<tr>
<td><strong>Bureaucratic control</strong></td>
<td>Ayers, Dahlstrom and Skinner, 1997</td>
<td>Yes</td>
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<tr>
<td><strong>Hierarchical directives</strong></td>
<td>Maltz and Kohli, 2000</td>
<td>Yes</td>
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<td></td>
<td>Leenders and Wierenga, 2002</td>
<td>Yes</td>
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<td><strong>Matrix structures</strong></td>
<td>Olson, Walker and Ruekert, 1995</td>
<td>Yes</td>
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<td><strong>Design teams</strong></td>
<td>Maltz, 1997</td>
<td>Yes</td>
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<tr>
<td><strong>Cross-functional teams</strong></td>
<td>Maltz and Kohli, 2000</td>
<td>Yes</td>
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<td><strong>Temporary task force</strong></td>
<td></td>
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<td><strong>Environmental Uncertainty</strong></td>
<td>Gupta, Raj and Wilemon, 1986</td>
<td>Yes</td>
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<td><strong>Structural Flux</strong></td>
<td>Maltz and Kohli, 1996</td>
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<td><strong>Internal volatility</strong></td>
<td>Maltz, 1997</td>
<td>Yes</td>
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<td></td>
<td>Maltz and Kohli, 2000</td>
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<td><strong>Organisational Strategy</strong></td>
<td>Gupta, Raj and Wilemon, 1986</td>
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<td><strong>Inter-functional rivalry</strong></td>
<td>Maltz and Kohli, 1996</td>
<td>Yes</td>
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<td><strong>Cross-functional training</strong></td>
<td>Maltz, 1997</td>
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<td></td>
<td>Maltz and Kohli, 2000</td>
<td>Yes</td>
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<td><strong>Cross-functional involvement</strong></td>
<td>Ayers, Dahlstrom and Skinner, 1997</td>
<td>Yes</td>
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<td><strong>Resource dependence</strong></td>
<td>Ruekert and Walker, 1987</td>
<td>Yes</td>
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<td><strong>Top management support</strong></td>
<td>Song, Montoya-Weiss and Schmidt, 1997</td>
<td>Yes</td>
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<td><strong>External Environmental Conditions/forces</strong></td>
<td>Ruekert and Walker, 1987</td>
<td></td>
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<td>Maltz, 1997</td>
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<td></td>
<td>Song, Montoya-Weiss and Schmidt, 1997</td>
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1.2 The Changing Nature of the NPD Work Environment and the Need for Trust

Cross-functional teams (CFT) are the structure of choice in many organisations that need to integrate functional specialists for NPD work (Cooper and Kleinschmidt, 1995; Griffin, 1997). The increased use of CFT has occurred in parallel with flatter organisational structures where improving cross-functional relationships is no longer about breaking down rigid interdepartmental boundaries but more about flexible and efficient ways of doing NPD work (Cooper and Kleinschmidt, 2007). This need for more effective ways to integrate the often dispersed NPD expertise has resulted in the increased use of virtual and global NPD teams (McDonough, Kahn, and Barzak, 2001).

As a result, one of the major issues facing modern organisations is the need to interact with new managers or co-workers, with whom you have had no firsthand experience (McKnight, Cummings and Chervany, 1998). This phenomenon, where new working relationships occur frequently, is also due to high levels of internal volatility or “structural flux” within organisations from the rate of change in personnel, structure, rules and procedures (Maltz and Kohli, 1996; Maltz, 1997; Maltz and Kohli, 2000). Managers are now required to work with people and their perceived agendas with limited information. In the past senior managers would have used highly formalised processes to force this relationship to work. However, as the empirical evidence suggests, this is not the most effective way to integrate functional specialists, as this can have a negative effect on cooperation and ultimately collaboration. This has led to the call for more organic approaches to functional integration that allow people to work in environment conducive to positive work behaviours (Moorman, 1995). More recently, researchers have examined the role of trust in organisations and how it can effect working relationships and found that trust plays a very important role in such complex dynamics (Dirks and Ferrin, 2001). In particular, Williams (2001) acknowledges:

“Trust in invaluable to organisations that depend on cross-functional teams, inter-organisational partnerships, temporary work groups and other cooperative structures to coordinate work” (p.377).
This study will highlight that organisations involved in NPD have focused traditionally on the basic aspects of relationships i.e., information flow and co-operation, by using a number of “integration methods”. However, they have neglected the development of “trust” between NPD participants and with the organisation. This perspective of trust has the potential to lead to the creation of a more organic organisation that does not have to rely exclusively on mechanistic coordination devices in the face of uncertainty (McEvily, Perrone and Zaheer, 2003; DeClercq, Thongpapanl and Dimov, 2011). As a consequence, organisational trust development should be seen as a primary goal of management actions.

1.3 Trust as the “New” Linking Mechanism

Although trust has received some attention in the NPD literature, rather than being the focus of these studies, it has tended to be a secondary consideration. This limited research has suggested that interpersonal trust within cross-functional relationships has an effect on several issues including: resolving conflict and preserving harmony in cross-functional relationships (Souder, 1977, 1981, 1988; Moenaert and Souder, 1990); increasing the perceived quality and use of market information between functional specialists (Maltz and Kholi, 1996); improving perceived relationship effectiveness (Massey and Kyriazis, 2007; Dawes and Massey, 2006) and improving the level of cross-functional collaboration achieved (Jassawalla and Sashittal, 1998). However, the reality is that NPD situations often require collaboration between functional specialists, who may or may not have had any previous working relationship from which to build interpersonal trust. This has led to the consideration of the work of several trust theorists in order to develop a framework where trust between members working on NPD projects becomes less dependent on interpersonal factors and more dependent on a variety of organisational factors.

Previous trust research has shown that, rather than trust being based on experience or firsthand knowledge of the other party (Shapiro, Sheppard and Cheraskin, 1992), trust in situations such as those described for the NPD process within organisations relies more on institutional cues that enable one person to trust another without firsthand knowledge. In this “institution-based” or “swift” trust development each member must believe that the institution (or organisation) reflects the actions of the people involved
and be comfortable with their own role, and the role of others in that setting. Perceptions about other group members are based on beliefs and attitudes towards particular groups, functions, or categories within the organisation rather than individual merits. This renders the participants more capable of managing issues of vulnerability, uncertainty, risk and expectations (Shapiro, 1987; Meyerson, Weick and Kramer, 1996; McKnight, Cummings and Chervany, 1998). To facilitate the development of “swift” trust, the aim of management should be to create positive feelings about the organisation, its processes and its functional units.

The positive outcomes associated with trust at both an interpersonal and organisational level are aligned with bi-directional communication behaviours (Bstieler, 2006; Mohr and Nevin, 1990; Fisher, Maltz, and Jaworski, 1997), mutual accommodation (Fisher, et al., 1997); and functional, as opposed to dysfunctional conflict (Bstieler, 2006; Menon, Bharadwaj, and Howell, 1996). NPD researchers agree that these outcomes are appropriate measures for collaborative behaviours in cross-functional relationships. Dirks and Ferrin (2001) in their review of the trust literature conclude that trust clearly performs an important role in developing beneficial behaviours such as cooperation, collaboration and organisational citizenship behaviour. This indicates a merging between researchers from the trust area and researchers in the NPD area. It seems, therefore, essential that functional integration be re-examined in light of the role that trust perceptions plays in shaping NPD participant behaviours at a process level. A high trust organisation where NPD participants are not fearful of top management or other NPD participants because trust exists and operates, will lead to collaborative behaviours in what is a very risky activity, developing new products.

1.4 Developing a Climate of Trust

There has been considerable discussion on the appropriate definition and measurement of climate in organisational behaviour. This has mainly arisen from the confusion between the use of “culture” and “climate” in the literature with the two terms sometimes being used interchangeably (Patterson, West, Shackleton, Dawson, Lawthorn, Maitlis, Robinson and Wallace, 2005; Sparrow, 2001; Ahmed, 1998; Schein, 1996; Deshpande and Webster, 1989; Barclay, 1991; Mohr and Nevin, 1990). This confusion arises from the fact that the concept of both culture and climate describe
employee’s experiences within their organisation, how they make sense of their organisation and also provides the context for their behaviour within the organisation (Sparrow, 2001; Patterson, et al., 2005). The most commonly recognised distinction is that climate is behaviourally oriented, measuring the impact of the feelings and perception of individuals about their organisation on their behaviour – or “what happens around here” (Patterson, et al., 2005; Sparrow, 2001; Ahmed, 1998; Deshpande and Webster, 1989; Barclay, 1991; Mohr and Nevin, 1990). Culture in contrast is presumed to create the appropriate states of mind that precede these behavioural patterns, and relates to the shared values and beliefs between individuals in an organisation – or “why things happen the way they do” (Patterson, et al., 2005; Sparrow, 2001; Ahmed, 1998; Deshpande and Webster, 1989). Climate can therefore be viewed as a surface manifestation of culture, describing the obvious, explicit and observable facets of behaviour without tapping into the more implicit underlying values, assumptions and rationales associated with culture.

Initial climate studies considered what is now referred to as “psychological climate”, which represents an individual level of analysis on the meaning and significance of the work environment (Patterson, et al., 2005). Studies by recent authors suggest that the measure of climate has evolved from individual perception to include collective assumptions from the perspective of work groups or departments within organisations, known as “organisational climate” (Patterson, et. al, 2005; McKnight and Webster, 2001). For example, an organisation can develop climates for creativity, innovation, or new product development, etc. within the context of its organisation (Patterson, et al., 2005; Sparrow, 2001; Schein, 1990). Organisations aspiring towards successful new product development need to spend their energy and effort in building organisational climates which perpetually create innovation.

The four factors most commonly associated with organisational climate are: (1) the nature of hierarchy – leadership responsibilities; (2) the nature of work – the level of autonomy and flexibility in the process; (3) the focus of support and rewards – the level and type of motivation; and (4) the nature of interpersonal relationships – the level of collaboration, affiliation with the organisation and trust (Ahmed, 1998; Mohr and Nevin, 1990). McKnight and Webster (2001) define the overall climate of trust as the general likelihood that people within an organisation are willing to depend on each
other in the performance of their organisational duties. The framework presented in the thesis will focus on the development of a climate of trust during NPD activities. The purpose will be to firstly examine the effect of management actions on the perceptions of the individuals involved in NPD. Secondly, these perceptions will be aggregated to determine the collective perceptions and thus the climate of trust within NPD. Thirdly, the study aims to determine whether the development of a climate of trust within NPD impacts on the collaborative behaviours that are associated with positive NPD outcomes.

1.5 A Framework for Developing Cross-Functional Collaboration During NPD

Rather than focusing on integration gaps as previous NPD integration models have done (Gupta, Raj and Wilemon, 1986; Griffin and Hauser, 1996) this framework presents a re-conceptualisation of what is required for successful NPD. The aim of this study is to shift the focus away from the traditional integration mechanisms used to achieve “information sharing and co-operation”, to the use of integration approaches which are effective in achieving the significantly more beneficial organisational outcomes of “collaboration” and “collaborative behaviours” between marketing and the other functional specialists involved in NPD.

Empirical evidence suggests that trust facilitates the types of collaborative behaviours that lead to successful NPD outcomes. Therefore, a framework has been developed to better conceptualise the development of a climate of trust. Specifically the framework examines the role that organisational factors under the control of management, and the decisions that management make regarding the “integration mechanisms” they use during the NPD process, can play on the development of a climate of trust. The perceptions of all the individuals involved in NPD regarding the various organisation and process factors are considered both individually and collectively in an attempt to determine the climate of trust that exists within NPD. This represents a multi-level analysis which considers trust within NPD at an individual level as well as NPD project or team level trust in both NPD and the organisation as a whole.
1.6 Problems and Questions Addressed by the Research

The gaps in the literature to date will be addressed through a number of research objectives.

The primary objective of this study is to examine whether a climate of trust is a relevant theoretical lens to use in the pursuit of the collaborative behaviours required for NPD success. The collective perceptions of all individuals involved in NPD will be used to determine the climate of trust achieved within NPD.

This study will further investigate the type of organisational factors that impact on the climate of trust at an NPD project or team level.

The investigation will begin with the conceptualisation of a framework for the development of a climate of trust in the NPD process. The framework aims to merge the factors identified in the review of the NPD literature with relevant factors from climate and trust theorists. The qualitative research component of this study will be used to confirm and refine this conceptual framework.

The second objective will be to assess whether the level of trust achieved impacts on the desired collaborative behaviours of bi-directional communication, mutual accommodation and functional (as opposed to dysfunctional) conflict. This will extend previous NPD research which shifts the focus from “integration” as a desired outcome of cross-functional relationships within the NPD process to “collaboration” and collaborative behaviours.

Thirdly, this study aims to offer managers the development of a climate of trust as an organisational tool to facilitate NPD success. The study will aim to identify the organisational factors under the control of management that impact on the climate of trust achieved.

These objectives will be met through addressing the following research questions:

1. How do individuals involved in NPD perceive the climate of trust within NPD?
2. Do faith in management, faith in the NPD process and organisational identification at and NPD project level affect the development of a climate of trust within NPD?

3. How does the climate of trust within NPD affect the desired collaborative behaviours of the individuals involved?

4. How can management facilitate the development of a climate of trust within NPD?

1.7 Academic Contributions of the Research

Although having a trusting climate has been identified as a positive in cross-functional relationships, this study is the first to merge the findings of NPD researchers with climate and trust theorists in other disciplines to develop a multi-level framework for such a climate. The climate of trust is considered at an individual level by measuring the level of “swift” trust within NPD as well as the risk perceptions of the individual members which are evident in management models but have been largely ignored by marketing theorists to date. At an NPD project level trust is considered from a cognitive perspective through faith in the NPD process and faith in the organisation and an affective perspective through their level of functional identification.

A further contribution of this study is to define the organisational factors under management control that will facilitate the development of a climate of trust to enhance collaborative behaviours and NPD success. Some of the most recent findings on the drivers of success in NPD practices acknowledge that the “best” firms appear to have “focused more on the “soft” tools and processes that are needed to better support the operation of teams and team leaders” (Barczak, Griffin, Kahn, 2009. p. 21). They do not however articulate exactly how these performance-enabling processes have been achieved and acknowledge that richer, in-depth qualitative research, such as the research conducted in this study, is required to gain these insights.

Previous marketing researchers have acknowledged the importance of organisational factors at both a management level and an NPD project level in successful new product development. They have also identified many of the key antecedent variables. They
have not examined these variables specifically as they relate to the development of a climate of trust.

The model developed for this thesis extends existing theory and shows the organisational and process factors that management can use to encourage the collective perceptions within NPD that are conducive to the development of a climate of trust. This study further considers the climate of trust and its antecedents as important explanatory variables in the development of collaborative behaviours during NPD. Ultimately, this thesis argues that the climate of trust is the theoretical lens most suitable for successful NPD.

1.8 Thesis Structure

Chapter 2 provides a review of the relevant literature concerning NPD, functional integration and the role of trust within NPD. The main purpose of the chapter is to provide the background and theoretical foundations of this study. It shows that despite many years of research there is still much dissention as to how to encourage individuals in NPD to work productively together in order to ensure NPD success. It also served to highlight the gaps in the literature to date.

Chapter 3 develops a conceptual model based on the key variables defined in the literature as affecting cross-functional integration and the work of trust theorists from other disciplines that are also discussed in this chapter. Particular attention is paid to the impact of these variables on the development of a climate of trust. Several research propositions are developed and presented based on this model.

Chapter 4 describes the research design and methodology used in this study including a description of the sample and respondents. A qualitative, multiple case study approach is chosen in order to gain deeper insight into the perceptions of the individuals involved than would be possible through quantitative methods. The multiple case study approach is generally believed to be more robust, generalisable and testable than other qualitative approaches. Each case stands on its own as an analytical unit and also serves as a replication, contrast and extension to the proposed theory. Theoretical sampling is used to identify four cases of diverse size, structure and industry. The cases are considered
“typical” with the view to discovering clear pattern recognition of the central constructs, relationships and logic of the framework. For each case, in-depth interviews are conducted with at least five individuals involved in NPD at the organisation from a variety of functions. Interviews are semi-structured and range in time from 34 – 83 minutes. All interviews are transcribed. Content analysis is then carried out using NVivo. Transcripts are coded according to the theoretical framework and propositions developed in chapter 3. Each case is analysed individually (chapter 5) and then a cross cases analysis (chapter 6) compares these results to determine the strongest match between the data and the propositions.

Chapter 5 provides a summary and analysis of each of the four cases used for the study. The cases are Australian manufacturing companies that use cross-functional teams in their new product development process. They represent a variety of products and industry sectors: heavy industrial manufacturing; heavy vehicles; consumer food and beverages; and building products. They are also diverse in the size and scope of their operation from a small, single market operation of less than $13million to a multinational, with total revenues of $3.5 billion. Each case is analysed using a “conceptual” strategy where the evidence is considered in regards to its degree of support for, or contradiction of, the theoretical framework developed in Chapter 3. Therefore, the first priority of the cases analysis is to establish the salience of a climate of trust between the functional specialists involved in NPD and the potential organisational drivers for the development of such a climate. The second aim of the case study analysis is to examine whether the presence of a climate of trust actually enhances the collaborative behaviours of the functional specialists involved and therefore overall NPD success.

Chapter 6 provides a cross-case analysis enabling confirmation of the theoretical framework established. The results of the four individual cases analysis are compared in order to determine the strongest match between the data examined and the propositions and conversely, where the data appears to refute the propositions.

Chapter 7 discusses firstly the findings of the study and the contribution of the study to the NPD literature. Secondly, it establishes an understanding of the role of management in developing a climate of trust that enhances cross-functional relationships during the
NPD process. In conclusion, it reviews the limitations of this study and discusses the implications for future research.
CHAPTER 2: REVIEW OF THE LITERATURE

2.1 Preamble

The following literature review highlights that organisations involved in NPD have focused traditionally on the use of a number of “integration methods” and have neglected the development of “trust” between NPD participants and with the organisation. This is important in NPD as the positive outcomes associated with trust are aligned with the positive outcomes associated with the collaborative behaviours associated with NPD success. It therefore appears that a high trust organisation where NPD participants are not fearful of top management or other NPD participants will lead to collaborative behaviours that have been shown to facilitate NPD success. Collective assumptions from the perspective of work groups or departments within organisations are known as “organisational climate”. This is a complicated construct that will be considered in more detail throughout the thesis. However, for the purpose of this introduction, it is suffice to say that if management can facilitate a climate of trust within NPD, collaboration and NPD success should follow. The purpose of this literature review is to examine how organisations can develop the necessary climate for effective NPD outcomes by investigating the type of organisational factors that may impact on the climate of trust achieved during the NPD process.

This literature review examines the development of knowledge on the relationships between marketing and other functional specialists during the NPD process. It reviews studies in the new products literature in relation to: (a) functional integration within NPD and the traditional approach to integration mechanisms; (b) the evolution of collaboration and collaborative behaviours amongst NPD members; and (c) factors that impact on collaborative behaviours.

The review is structured as follows. Firstly, research on cross-functional relationships and the development of integration theories are reviewed. Secondly, the review establishes an evolution in the direction of NPD research away from integration itself as a desired outcome and towards collaboration and the need to develop collaborative behaviours amongst individuals involved in the NPD process in order to achieve success. Thirdly, the review examines factors specific to the organisational climate
within NPD and its impact on the behavioural outcomes of the individuals involved. It pays particular attention to the role of trust in the existing NPD literature, its antecedents and its impact on the climate within NPD in achieving collaborative behaviours. Finally, gaps in the existing knowledge are identified, notably those relating to the development of a climate of trust during NPD.

### 2.2 Functional Integration During NPD

Lorsch and Lawrence (1965) were some of the earliest researchers to take the idea of cross-functional integration and apply it specifically to product innovation. One of their research questions looked at “how to get sales, research and production people to pull in the same direction on product development?” Through their research they specifically relate the existing integration literature to new product development. They propose that successful innovation requires “collaboration” between scientific innovators, sales and production specialists. They carried out a case study analysis of two industrial plastics firms, where they specifically considered these cross-functional relationships. They concluded that:

> “The challenge confronting managers responsible for organising for innovations is to work at developing means of coordination which permit effective specialisation and effective coordination” p.109)

Though not extensive research, this paper was one of the earliest to highlight the importance of effective cross-functional integration for companies competing in developing new products. They identified some of the issues arising from the need to coordinate specialists with diverse backgrounds and expertise. Although they did not specifically offer a definition of collaboration, they were among the first to acknowledge the importance of behaviours such as trust, two-way communication, mutual confidence and effective conflict handling between functional specialists as a means of establishing successful collaboration.

As researchers recognised a need for managing across disciplines for successful new product development (NPD), more studies were initiated on the relationship between marketing and other functional specialists. Many of these studies measured the relationship, not through the level of integration achieved, but through other related
outcomes such as conflict handling (Souder, 1977, 1988; Ruekert and Walker, 1987; Olson, Walker and Ruekert, 1995; Mukhopadhyay and Gupta, at al. 1995; Maltz and Kholi, 2000) cooperation (Maltz, 1997; Song, et. al, 1997) and communication effectiveness (Maltz and Kohli, 1996; Maltz, Souder and Kumar, 2001).

Souder (1977) conducted a laboratory test on participants at a management training program directed at building teamwork between marketing and R&D. The research involved nine different groups from several organisations. The experiment aimed to find a “best” group process setting for conducting conflict management. The research contrasted the use of “nominal settings” - task-oriented individual efforts by members who share some opinions or decisions but do not engage in confrontation, with “interactive settings” - involving primary relationships and open confrontation among members. He hypothesised that a combined nominal-interacting setting, where members are alternately exposed to nominal and interacting activities, would lead to higher levels of integration than either nominal or interacting settings alone.

The results supported the hypothesis that the combined process was relatively more effective than either of the alternative processes. The weakness of nominal settings was that they did not provide the interpersonal interactions needed to modify values and build coordinative behaviours between parties. Interacting settings stimulated these coordinative behaviours but did not provide mechanisms for conflict resolution and integration.

Of most significance to this study is the finding that:

“interpersonal intragroup conflicts cannot be resolved by conflict avoidance, nor by confrontations that are not carried out in an atmosphere of openness, trust and leader sensitivity for others.” (p.604)

These results support the concept that “integration mechanisms”, though an essential part of developing integration between marketing and R&D, are not sufficient on their own. It suggests that an atmosphere (climate) of openness and trust must be developed to manage conflict and thus gain lasting positive behavioural outcomes between individuals.
Souder (1981) continued this line of research on a much larger scale as part of a comprehensive longitudinal study on industrial innovations. In this paper he looked at ways to promote a harmonious R&D/marketing interface. Using 296 in-depth interviews on 116 projects with top, middle and project level personnel, the results were the identification of three typologies: The Harmony State, The Mild Disharmony State and the Severe Disharmony State. The results showed that:

“Conflicts and disharmonies between these two groups can severely hinder new product successes. Avoiding disharmonies through various management methods is generally less costly and more effective than attempting to overcome long-standing disharmonies that may have become institutionalised” (Souder, P.73)

Many cases of severe disharmony could be traced back to mild disharmonies which had been allowed to escalate. The deep-seated negative attitudes and distrusting behaviours characterised by these severe disharmony states were found to stand in the way of integration. This research supported the nominal-interactive decision making process, including integration mechanisms which fostered harmony as being the most successful devices in improving the marketing and R&D interface.

This is a more comprehensive paper than had previously been done on the marketing and R&D relationship, and as such it is reasonable to generalise the findings to many NPD situations. By specifically looking at the type of interface that exists between R&D and marketing, the results clearly indicate the importance of relational variables on individuals’ behaviours, although they do not go as far as providing a definition for trust in these relationships. Of particular relevance to this study is support for the idea of management taking a pro-active stance towards conflict handling, to foster harmony between marketing and R&D in new product development, drawing attention to the need for a more organic approach to managing this interface.

In 1986, Gupta, Raj, and Wilemon sought to synthesise existing marketing, organisational behaviours, new product development and management research into a conceptual framework for studying the R&D/marketing interface in NPD (Figure 2.1). They sought to understand: (1) how much integration was required; (2) how much
integration was achieved; and (3) how integration affected innovation success. In developing their model they examined the role of organisational structure, senior management and the cultural differences between R&D and marketing managers. They surveyed 109 Marketing Managers and 107 R&D Managers in 167 US hi-tech companies. The results highlighted many of the barriers to successful integration between these two functions and their effect on innovation success.

In relation to the integration required, one of the major contributors was found to be the role of senior management. Senior management decisions such as how much integration was valued, their attitude towards risk taking, the nature of the reward systems offered and their tolerance for failure were found to have a significant impact on the environment within the firm and, in turn, the behaviour of the individuals. In examining how much integration was actually achieved, the authors found that the motivation to integrate was also affected by organisational factors such as the type of innovation strategy used. Individuals’ perceptions regarding environmental uncertainty were also found to impact on their behaviours. Following a comprehensive review of the literature to date, Gupta, Raj and Wilemon concluded that integration had a strong positive relationship with innovation success.

A major contribution of these authors is the development of a conceptual framework that seeks to better explain the role of functional integration on successful innovation. Although untested, their model considers both organisational and individual factors in achieving the optimum level of integration for innovation. The role of senior management is specifically considered in that their actions either help or hinder effective integration, highlighting the impact of senior management decisions in developing positive behavioural outcomes. The framework developed by these authors is useful in directing research attention to key variables in the integration process rather than simply the importance of integration. The variables they consider include both organisational and personal factors and their relationships over the course of the NPD process. The outcomes these authors consider for integration relate to the extent of R&D and marketing involvement and information sharing achieved. Many of these variables will be examined in the formulation of the model presented in this thesis.
A second school of thought emerging at this time was from Ruekert and Walker (1987) who proposed an alternative conceptual framework for marketing’s interaction with other functional units. Their framework differs in the belief that inter-functional interactions have predictable, interrelated properties. Their model (Figure 2.2) used a system-structural perspective which focused on the internal environment, structure and process that guided interactions as well as the psycho-social outcomes. This model provides a contrast to Gupta et al. (1986) by examining not only the situations and processes that govern whether interaction and integration is achieved but also how they have been achieved and the concepts of perceived effectiveness of relationships. They empirically tested 14 dimensions of their framework by interviewing all marketing personnel in 3 divisions of a single company, as well as samples of managers from other areas. The results showed that the framework did capture some generalisations, but the small sample size and limited nature of statistical analysis also raised opportunities for further research into how marketing interacted with other functional areas and the effect on organisational outcomes.

The key contribution of this model is the addition of psycho-social outcomes to the functional outcomes that had previously been measured in regards to successful NPD. Although these psycho-social outcomes are not specifically used in this thesis, the
relevance of this study is the importance of individual perceptions on behaviour. For the purpose of this study I have considered successful NPD outcomes to be a function of the collective perceptions of the key participants involved in the NPD process.

Souder (1988) conducted his most comprehensive study to date, taking place over 10 years, 289 projects, and 56 firms while using 27 instruments. He built on his previous research by measuring the incidence, severity and consequence of disharmony. The results showed nearly two thirds of the projects examined experienced a state of disharmony. The severity of disharmony was found to be statistically significantly related to the degree of success of the project. This research showed that severe disharmonies were extremely difficult to overcome.

One of the characteristics of severe disharmony was seen to be distrust, in the form of “deep-seated jealousies, negative attitudes, fears and hostile behaviours” (Souder, p.11). This noted circumstances where distrust issues had evolved, without
management intervention and had become institutionalised. In these situations, even personnel who had not been involved in the initial conflict harbored feelings of distrust towards people in other groups.

Souder’s study highlights distrust as having a negative impact on the attitudes and behaviours associated with integration and NPD success. Although I will not specifically examine distrust in this thesis, Souder’s findings still support the need for a greater focus on the development of trust at an organisational level in order to facilitate the outcomes required for effective integration between functional specialists in involved in the NPD process.

Olson, Walker, Ruekert (1995) developed and tested a model to determine, among other things, how the interaction between the type of new product and the type of integration mechanism affected various outcomes. Consistent with Gupta, et al., 1986, they suggested that:

“a business’ ability to actually achieve the desired degree of integration between the two departments is a function of the structural and operating characters of the mechanism used to coordinate the function” (p.51)

These authors use the term “lateral linkage devices” interchangeably with “coordination mechanisms” and acknowledge seven that lie on a continuum between highly formalised and mechanistic to more organic and flexible, and these are: bureaucratic control/hierarchical directives; individual liaisons; temporary task forces; integrating managers; matrix structures; design teams; and design centres.

Their study was conducted on 45 new products across 12 firms. The resulting model was made up of a matrix of the types of conflict that could develop between marketing, manufacturing and design to which they applied the seven coordination mechanisms that they had established in an effort to address each of the conflict issues. The authors argued that the advantage of the model was that it could be used either to resolve existing conflict or for strategic positioning to avoid potential conflict. The significance of this paper to the current study is that it provides evidence of the advantages of organic, decentralised, participative coordination mechanisms in NPD.
In 1996, Griffin and Hauser undertook a “review and analysis of the literature to date” where they brought together the work of a number of previously mentioned scholars to develop a causal map for studying integration. These authors suggested researchable propositions that linked integration mechanisms to outcomes. They considered integration in regards to the barriers to communication and cooperation in terms of personality, cultural thought worlds, language, organisational responsibilities and physical barriers. They aimed to synthesise the contributions of previous researchers by comparing three different models for marketing and R&D integration. They then proposed a broader causal map from which future research on R&D and marketing integration mechanisms at the project level could be obtained. They considered that the Gupta et al. (1986) model (Figure 2.1) would be best used to analyse the desired level of marketing and R&D integration in regards to the firm’s strategy and environment, whereas the Ruekert and Walker (1987) model (Figure 2.2) might be more appropriate in the analysis of interfaces within one company or within a set of companies facing similar environments or using similar strategies. For the development of their framework, both Gupta et al. (1986) and Ruekert and Walker’s (1987) models for functional integration were considered (Figure 2.1 and 2.2). The authors suggested that the Gupta et al. (1986) model was less favourable to a manager at project level as, though it could be used to diagnose which aspects of integration a company may want to improve, it did little to identify solutions to particular integration problems. By contrast, Ruekert and Walker (1987) model considers the management situations and process that govern not only whether or not integration has been achieved, but specifically how they have been achieved.

The subsequent model developed by Griffin and Hauser (Figure 2.3) was broken into situational dimensions, structural/process dimensions and outcome dimensions according to the systems-structural perspective adopted by the Ruekert and Walker model. The situational dimensions represented the integration required, which they suggested would vary according to the type of project being undertaken. The outcome dimensions measures the impact of the integration achieved on the organisational and process outcomes. The structural process dimensions were the suggested actions that could be taken to achieve integration – the integration mechanisms. Griffin and Hauser’s model considers the following six mechanisms: relocation and physical
facilities design; personnel movement; informal social systems; organisational structure; incentives and rewards; and formal integrative management processes. They go on to analyse each of these integration mechanisms in relation to barriers overcome, aspect of integration achieved, uncertainty reduced and outcome affected.

Griffin and Hauser’s is a comprehensive study bringing together several groups of researchers’ previous work. It summarises the work on marketing/R&D integration to that point and formalises six integration mechanisms and their potential outcomes. The importance of their conceptualisation to this study is that Griffin and Hauser highlight the “people” aspect of achieving affective functional integration by focusing attention on several organisational factors, including incentives and rewards and organisational structure that directly influence the behaviours of individuals involved in the NPD process. This thesis examines the impact of these dimensions on the collective perceptions of the individuals involved in NPD and on their subsequent behaviours.
Maltz and Kohli (1996) considered the specific outcome of dissemination of market intelligence by marketing managers to non-marketing managers. They examined firstly the effect of dissemination frequency and formality on receiver-perceived quality and use. Secondly, they considered the extent to which intelligence is disseminated through formal versus informal mechanisms. Finally they examined the factors that influenced inter-functional dissemination in organisations.

To test their model, they carried out extensive empirical research on 788 managers from high-tech firms. They identified individual, interpersonal, inter-functional and environmental antecedents of various dissemination process characteristics including “trust in sender”. Their results indicate that:

“inter-functional rivalry appears to be the strongest predictor of trust in a sender from another function ... Receiver and interpersonal characteristics seem to have little, if any, effect on trust in an inter-functional context”(p57)

This is an important finding, as it suggests that the trust that is needed for better information dissemination between functions in an organisation is determined not by the personal characteristics of the individuals involved but by characteristics applied to functional areas within the organisation. Maltz and Kohli’s research also looked at the effect of “structural flux” and found that it increased the formality of the dissemination. They did not however examine the effect of structural flux on trust.

The importance of these findings for this study is the identification of a gap in the existing literature regarding how management can develop trust at an NPD project level. A further gap identified is the impact of structural flux on the development of this type of project level trust.

Maltz (1997) pursued the issue of “structural flux”, identified in his previous work, to reconceptualise the barriers to cooperation between functions. Extending on the findings of Griffin and Hauser (1996), he examined the internal and external environments’ effect on cooperation, and how integration mechanisms could
differentially affect cooperation between various departments. He defined the barriers of coordination according to Griffin and Hauser (1996). His research extended on this by examining the direct and moderating effects of the environment in terms of “environmental dynamism”, which is defined as “the rate of change in the external environment” and “structural flux”, being “the rate of change within an organisation” (p 87). He then considered six integration mechanisms, which though not identical to were consistent with the six proposed by Griffin and Hauser (1996), according to the barriers to cooperation they addressed as well as the proposed differential effects on cooperation between different departments (Figure 2.4). This framework extended on existing theory by proposing that internal and external environmental issues could affect the level of “cooperation” achieved within an organisation.

It is particularly pertinent to this study as it highlights the importance for future research to examine the impact of these internal and external components on individual perceptions and their corresponding behaviours.

Song, Montoya-Weiss and Schmidt (1997) developed and empirically tested a model that, while similar to Maltz (1997), considered the impact of both external and internal factors on inter-functional cooperation and NPD performance. Their research of 598
managers from marketing, manufacturing and R&D in Mexican high technology firms suggested that “internal facilitators” have a greater effect on cross-functional cooperation than external forces. They defined three types of internal facilitators: evaluation and reward procedures; conflict avoidance mechanisms; and top management support. They argued that although the external environment impact on senior management and their strategic decisions:

“At the NPD project level, management, not the environment, is the primary driver of the coordination mechanisms used and the ultimate degree of cooperation achieved.” (p43)

These results indicate that the effect of environmental dynamism on cross-functional cooperation, at least at a project level, is minimal. More significant to this study, is their finding that management decisions play a key role in determining the degree of cross-functional integration achieved. These decisions have significant control over the “culture” of cooperation achieved, suggesting that a constructive “culture” of cooperation and communication can be created by management.

Ayers, Dahlstrom and Skinner (1997) considered how managerial controls influenced not only integration, but also relational norms within organisations. Their model was grounded in control theory which is a framework that illustrates how environmental factors and controls influence organisational outcomes. They divided control structures into formal and informal mechanisms, where formal controls refer to management initiated written directives, as opposed to informal controls, which were worker-based and unwritten. Both controls were designed to guide employee actions and influence individual and group behaviour. They supported the view that controls could be combined to achieve desired outcomes and suggested:

“The nature of NPD suggests that activities should be managed through informal social controls, yet the interdepartmental nature of the process suggests that formal process-based mechanisms should be employed.” (p108)

In regards to the relationships between marketing and R&D in new product development, they considered relational norms as defined by solidarity, conflict harmonisation and flexibility. They used structural equation modeling to analyse
several hypothesis based on centralisation and formalisation, relational norms, perceived effectiveness and new product success. Their findings supported the importance of integration to product development. Relational norms were found to be negatively associated with product performance. Centralised decision making inhibited inter-functional integration while role formalisation directly raised the level of integration.

This research recognises the link between managerial controls, interpersonal interactions and their influence on organisational outcomes. A further contribution of this research is integration outcomes that are considered as they go beyond the traditional measures of cooperation and communication to include “involvement” and “conflict harmonisation”.

Maltz and Kohli (2000) considered the effect of integration mechanisms on the specific issue of cross-functional conflict. They used six integration mechanisms, five of which were supported by previous research (Griffin and Hauser, 1996), and a further mechanism they called “social orientation” derived from interviews with functional managers. They aimed to measure the effectiveness of these mechanisms on reducing conflict between marketing and other functions, the degree to which the effectiveness differed across different functional interfaces, and the direct and moderating effects of internal volatility or “structural flux” on conflict.

Their results were derived from a sample of 774 manufacturing, R&D and finance managers from 261 organisations. They suggested that of the 6 integration mechanisms tested, the use of cross-functional teams was the only one that had a positive effect on reducing conflict. The results also indicated that high levels of internal volatility led to significantly more conflict between functions. This complemented earlier findings where structural flux was believed to increase inter-functional rivalry (Maltz, Souder and Kumar, 2001). This implied that internal volatility impacted on both rivalry and conflict between functions. In particular they noted that though higher internal volatility typically led to higher manifest conflict, the negative impact was less where cross-functional teams were used.
The significance of this study is its lack of support for the use of many of the previously advocated integration mechanisms to reduce conflict between various marketing interfaces. It also highlights the significance of internal volatility or “structural flux” on the relationship between marketing and other functions. It shows the benefit of cross-functional teams not only in reducing conflict, but also in countering the effects of the structural flux. As inter-functional conflict has been shown to have negative effects on both communication and cooperation (Menon, et al., 1996; Souder, 1977), these findings imply that the use of integration mechanisms needs to be reassessed in order to establish those that are most likely to lead to desired behaviours other than the traditional measures of communication and cooperation in order to achieve NPD success.

Leenders and Wierenga (2002) extensively reviewed the literature and empirically tested a broad range of integrating mechanisms and their effect on NPD performance. They argued that although many previous researchers had considered integration mechanisms as part of their studies, none had actually considered all the mechanisms in the same study, or measured them all specifically in relation to NPD performance. They provided a summary table of the empirical findings of previous researchers in this field. The integration mechanisms they chose to measure were as per Griffin and Hauser (1996). They surveyed 1,000 senior managers from different pharmaceutical companies worldwide, though only received 148 responses (a 19% response rate). Their results found that “formal integrative management processes were strongly associated with integration. The physical distance between marketing and R&D was also strongly related to integration. Incentives and rewards were seen as another important factor, with equal remuneration and career opportunities between functions being positively associated with integration as well. Organisational structures such as cross-functional teams and informal social systems were also positively associated with integration, though the use of informal social systems was less significant when cross-functional team use was high. They also argued that the use of information and communication technology (ICT) facilities had the ability to build informal networks, so there was less need for informal social systems where ICT use was high. Personnel movement or job rotation was the one mechanism which did not appear to have a positive effect on
integration or NPD success. These results supported Maltz’s (1997) theory on the negative effect of “structural flux” on organisational outcomes.

Leenders and Wierenga’s research provides a summary of the effectiveness of several well recognised integration mechanisms on NPD success and highlights the fact that though these mechanisms have a positive effect on integration, in the traditional form of cooperation and communication, they do not necessarily lead to NPD success. This is largely due to the choice by the authors to measure integration as a uni-dimensional construct, rather than breaking it down according to the specific behaviours affected by the mechanisms. These findings suggest the need for further research that looks beyond integration as an outcome and examines other organisational factors that may impact on the development of the desired behaviours for NPD success.

As is evident from the review of the literature so far, several scholars have developed and tested models concurrently in relation to the integration of marketing and R&D. Each of them considered integration mechanisms and developed models aimed at defining the best devices to use in particular circumstances. The following table (Table 2.1) is a summary of all the integration mechanisms proposed by the reviewed authors. However, although many of the devices considered were found to lead to better integration, it appears that integration alone is not sufficient to generate successful NPD. The remainder of this review will examine the NPD literature that has gone beyond integration as an outcome and considered other organisational factors that impact on the individuals involved in the NPD process to achieve the desired behaviours for NPD success.

2.3 The Evolution of Collaboration and Collaborative Behaviours as the Desired Outcome for NPD success.

Recognising the need to develop a clearer understanding of what constitutes functional integration, Kahn (1996) attempted to clarify the definition of interdepartmental integration that had evolved through the previous years of research: He argued that previous definitions of integration had been ambiguous with some research describing it as interaction - the use of communication flows between departments (Griffin and
Hauser, 1996; Ruekert and Walker, 1987), while others portrayed integration as a state of mutual goal commitments and collaborative behaviours (Gupta, Raj and Wilemon, 1985). Kahn re-defined integration as being made up of two different processes, interaction and/or collaboration and suggested:

“The definition for integration should be re-evaluated to reflect the distinct nature of interaction and collaboration” (p.139)

This study suggested that integration should be reconceptualised as a “multidimensional” activity that combined transactional “interactions” such as the meetings and other formal information flows previously considered in integration research with informal, cooperative relationships also found to be associated with NPD success. Kahn used this conceptualisation to develop a model of inter functional integration that led to improved product performance as well as product management performance.

To support this model, empirical research was carried out on 514 marketing, manufacturing and R&D managers who were members of the Electronic Industries Association (EIA). The results strongly supported collaboration’s role in achieving product development and product management success. Interaction also was shown to have a role in integration, though a secondary one to collaborative activities. Kahn suggested that firms needed to assess their own level of interdepartmental collaboration and interaction to create a benchmark for managers throughout the company, which could also be compared to other companies. Remedies suggested to increase collaboration between functions included: informal activities; reward structures; strategic planning sessions; cross-functional training; co-location; and relocation and physical facilities design. Though not identical, these were consistent with the integration mechanisms put forward by Griffin and Hauser (1996) and later by Maltz (1997). The idea of benchmarking to obtain the optimum level of integration for the firm gave management clear guidelines for improving cross-functional integration from department to department, for the firm as a whole or in comparison to other organisations. This research reconceptualised cross-functional integration as two separate, but complementary activities of interaction and collaboration and suggested that only when both were achieved to their optimum level would NPD success follow.
These findings suggest that the concept of “collaboration” should therefore become the focus for future research on cross-functional relationships during NPD and have formed the basis of the outcomes used in this study.

Kahn and McDonough (1997) continued this research by examining the relationship between a particular integration mechanism, (i.e. co-location), integration, performance and satisfaction. The authors refined their definition of interdepartmental integration further by adopting a composite perspective requiring both inter-departmental interaction and intra-departmental collaboration to achieve integration. Their model was empirically tested with a survey of 514 managers from marketing, manufacturing and R&D. The results supported Kahn’s (1996) previous research on collaboration by showing a direct relationship between collaboration and performance and satisfaction. In respect to the particular mechanism of co-location, though it was helpful for integrating particular departments, there was no direct relationship between departmental co-location and NPD performance. This research showed that:

“Apparently, the affective component of integration, i.e. collaboration, is unaffected by physical proximity”(p.167)

This is a significant finding as it suggests that some integration mechanisms, though useful in promoting inter-departmental interaction, do not affect the higher order of collaboration. This indicates a need to shift the focus from integration as an outcome to collaboration and that future models of NPD success, including the one developed for this thesis, should choose the organisational variables most likely to achieve this outcome.

Kahn and Mentzer (1998) conducted a further study on whether marketing needed to interact, collaborate or both in order to achieve success. The empirical findings of this study determined that there was a significant relationship between collaboration and performance, but no significant relationship between interaction and performance, supporting Kahn’s earlier work.

This paper supports the view that not all integration mechanisms have an impact on NPD performance and, as such can be omitted in future research aimed at improving NPD success. Perhaps the most significant contribution of this work is the suggestion
that, unlike the traditional models of NPD success that have measured the level of integration achieved, future models need to focus on the outcomes of collaboration and collaborative behaviours. The framework presented in this thesis will concentrate on the organisational factors that have been shown to impact on collaboration, and omit those that have only been shown to improve integration. This study will consider these factors in relation to their affect on developing a climate of trust.

Fisher, Maltz and Jaworski (1997) looked specifically at enhancing communication between marketing and engineering functions within NPD. They acknowledged the confusion in previous definitions of functional integration and aimed to examine the development of norms that encouraged information sharing behaviours, as per the traditional approach to integration, along with the construction of “integrated goals” that emphasised organisational outcomes and required collaboration. Their aim was to demonstrate that the two concepts were in fact differentially effective. This study differed from previous research to this point, as rather than focusing on the frequency of communication, these authors aimed to explore the importance of bi-directional communication (Mohr and Nevin, 1990) on inter-functional relationships, such as those found in NPD. They defined bi-directionality as:

“the degree to which communication … is a two-way process” (p. 55)

Their initial study was undertaken in a single, large company with 89 respondents from a possible sample of 180. They then went on to replicate and extend the study to provide more diversity in regards to the type of company and the nature of the marketing–engineering interface. A further 72 surveys were conducted across a single firms’ 36 strategic business units. Fisher et al. concluded that both frequency and bi-directionality had a direct effect on information use and perceived relationship effectiveness.

Their findings support the previous works on collaboration by suggesting that bi-directional communication is as least as important as communication frequency in generating positive inter-functional outcomes. Therefore bi-directional communication will be considered as a measure of collaborative behaviours for the purpose of this study.
A further contribution of Fisher, al was the introduction of the construct of relative functional identification (RFI) to the marketing literature. RFI is used to measure how the degree to which managers identified with their function (i.e. marketing), rather than with the organisation as a whole, impacted on their behaviour. The findings suggested that managers with a high RFI were less affected by organisational level directives and norms than low RFI managers. The findings also implied that cross-functional teams, project teams and matrixed organisations led to lower RFI and that integrated goals also helped to lower the level of RFI. These findings also suggest that low RFI improves inter-functional relationships.

This is particularly significant in the study of NPD as teams are the most common types of structures found in this process. The introduction of RFI in the marketing literature is a significant step towards understanding the role of group identities within organisations. Further research on the antecedents to RFI would be beneficial in providing guidance to managers as to how to affect this variable in order to improve organisational outcomes. This study does not specifically consider RFI, but does incorporate the related construct of “organisational identity” and its antecedents as important variables in the development of a climate of trust.

Jassawalla and Sashittal (1998) also expressed the importance of collaboration and argued that firms needed to go beyond integration and start thinking in terms of collaboration in order to achieve NPD success. Like Kahn (1996), they considered collaboration as a more complex, high intensity cross-functional linkage than integration. They theorised that integration mechanisms could provide significant increases in NPD-related inter-functional integration, but that high levels of integration did not necessarily equate to high levels of collaboration. They conducted a qualitative study consisting of more than forty in-depth interviews with marketing, R&D and manufacturing personnel from ten large US based organisations. In this study, cross-functional collaboration is characterised by:

“participants who achieve high levels of at-stakeness, transparency, mindfulness and synergies from their interaction”(p. 239)

According to their resulting framework, both organisational and participant factors affect the type of integration mechanisms used and the level of collaboration achieved.
The organisational factors that affected the level of collaboration achieved included: organisational priority of NPD, decentralisation of NPD decisions, and the nature of leadership. The participant factors that impacted collaboration were: propensity to change; propensity to cooperate; level of trust; and managerial initiatives. These seven factors were what they believed impacted most directly on collaboration, regardless of the integration mechanisms used. Their findings differed from Kahn’s in that rather than integration being a measure of collaboration and interaction, they defined integration as a subset of collaboration, they argued that collaboration actually occurred after cross-functional integration was achieved by adding at-stakeness, etc. Empirical testing of this model is required to validate these findings and to gauge the actual impact of organisational characteristics and participant behaviours on the level of collaboration achieved.

Although these authors have differing views on collaboration, the concept of the desired behaviours for NPD being at a “higher level” than the interactions used in initial studies on integration will form the basis of the outcomes chosen for NPD success in the conceptualisation for this thesis. Therefore, rather than focusing on the amount of communication and coordination achieved, this study will consider the type and quality and thus “collaborative” nature of these behaviours.

Song, Xie and Dyer (2000) examined the antecedent and consequences of marketing managers’ conflict handling behaviours and in particular, the influence of key variables on the two conflict behaviours of “avoiding” and “collaborating”. Though this research was specific to conflict behaviour, the authors chose these behaviours “because collaboration represents the ideal in conflict behaviour according to the management literature” (p. 53). They defined the collaborating construct as being cooperative behaviours such as collaborating, accommodating and compromising. This was a cross-cultural study designed to develop and empirically test a model of marketing managers’ conflict handling behaviours during NPD. They described the effects of these behaviours on cross-functional integration as well as the effect of cross-functional integration on NPD success and performance. Their results showed that managers should decrease avoiding and increase collaboration conflict behaviours to promote successful cross-functional integration and NPD success.
These findings support the purpose of this thesis to re-consider traditional views on cross-functional integration to establish precise factors that led to the behaviours required for NPD success and explore the possible antecedents to these desired collaborative behaviours.

A summary of the integration and collaboration literature examined by this review can be found in Table 2.2. It is evident from this summary that much of the integration literature to date has taken the form of quantitative studies. While these studies form a starting point for this thesis, the complexity and inter-disciplinary nature of the constructs being examined, specifically trust and climate, suggest that quantitative methods may not be the most relevant for this study leading to further examination of potential research methods.
Table 2.2: Theoretical and Conceptual Research Related to the Development of Collaborative Behaviours between Cross-Functional Specialists in the New Product Development Process

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Scope</th>
<th>Subjects</th>
<th>Study Aim</th>
<th>Theories Studied and Recommendations</th>
<th>Methods</th>
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<tbody>
<tr>
<td><strong>2.2 Functional Integration during NPD</strong></td>
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</table>
| Lorsch, Jay W, Lawrence, Paul R | 1965 | 2 companies in plastics industry | Department heads | To solve the problem of obtaining collaboration and coordination between research, sales and production specialists involved in product innovation | 2 devices examined:  
- Coordination departments: whose members work among several specialist groups; and  
- Cross-functional coordinating committees where members confront their differences and reach optimal resolution.  
The need for management to use coordination mechanisms that combine specialisation and effective coordination | Case study |
| Souder, William E | 1977 | Experiments – completing group tasks  
Participants in management training program directed at building teamwork  
USA | Randomly sorted into 9 groups  
3 R&D  
3 Marketing others varied | To measure statistical consensus and task integration among members of each team. | Hypothesised that groups using nominal interacting process would exhibit higher levels of statistical consensus and task integration than the others.  
Concludes that integration mechanisms are not sufficient on their own. Interpersonal relationships guided by openness and trust must also be developed to gain lasting collaborative behaviours. | Laboratory tests  
Correlation analysis |
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<tr>
<th>Author(s)</th>
<th>Year</th>
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<th>Study Aim</th>
<th>Theories Studied and Recommendations</th>
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<tr>
<td>Souder, William E.</td>
<td>1981</td>
<td>In-depth interviews 20 firms randomly selected 116 new products USA</td>
<td>296 marketing and R&amp;D managers.</td>
<td>Potential solutions to R&amp;D/marketing interface problems</td>
<td>Identifies degree of R&amp;D/marketing harmony by: cooperation, feelings of warmth, mutual commitment. Collapsed into 3 typologies: Harmony State, Mild Disharmony, Severe Disharmony Concludes that taking a proactive stance towards the R&amp;D/marketing interface is better than allowing severe disharmony states to develop</td>
<td>Content analysis</td>
</tr>
<tr>
<td>Gupta, Ashok K; Raj, S.P.; Wilemon, David</td>
<td>1986</td>
<td>Conceptual framework</td>
<td>R&amp;D and Marketing managers</td>
<td>To develop a conceptual framework that synthesises previous marketing, organisational behaviour, new product development and research management research</td>
<td>Model developed to assist in choosing organisational structure best used to foster R&amp;D/marketing relationship. Identified variables that senior management can influence for better R&amp;D/marketing integration as well as particular problem areas during the NPD process</td>
<td>n/a</td>
</tr>
<tr>
<td>Ruekert, Robert W; Walker, Orville C</td>
<td>1987</td>
<td>Mail survey 3 divisions of a Fortune 500 firm USA</td>
<td>All marketing management and sales personnel plus a sample of managers in other areas 114 marketing 69 other</td>
<td>To develop a conceptual framework to describe how, why and with what results marketing personnel interact other personnel</td>
<td>Examined the belief that inter-functional interactions have predictable, interrelated properties by focusing on the internal environment, structure and process that guide interaction and the psychosocial outcomes. Considered various dimensions: transaction, internal environment, coordination, communication, and output in developing a conceptual framework</td>
<td>Correlation analysis</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Scope</td>
<td>Subjects</td>
<td>Study Aim</td>
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<tr>
<td>Souder, William E</td>
<td>1988</td>
<td>In-depth interviews Telephone interviews 56 consumer and industrial firms 289 cases 27 instruments USA Over 10 years</td>
<td>R&amp;D and marketing managers</td>
<td>To examine the level of disharmony to improve the R&amp;D, marketing interface</td>
<td>Measured the incidence, severity and consequences of disharmony. Developed a model including 8 guidelines for management to overcome disharmony.</td>
<td>Content analysis. Multi-method, multitrait measurements Statistical cluster analysis</td>
</tr>
<tr>
<td>Olson, Eric M; Walker, Orville, C; Ruekert, Robert W</td>
<td>1995</td>
<td>Mail survey 15 divisions from 12 firms on 45 new products 112 respondents USA</td>
<td>Project managers, from R&amp;D, marketing manufacturing and design</td>
<td>To develop and test a conceptual model to describe how the interaction between type of new product and type of coordination mechanism affects various outcomes.</td>
<td>The better the fit between the newness of the product concept and the participativeness of the coordination mechanism used the better the NPD outcomes.</td>
<td>Cronbach’s alpha factor analysis Multi-variant analysis ANOVA</td>
</tr>
<tr>
<td>Griffin, Abbie; Hauser, John R</td>
<td>1996</td>
<td>Conceptual Development Causal Map</td>
<td></td>
<td>Propose a causal map for studying integration, and suggest researchable propositions that link mechanisms to outcomes.</td>
<td>Reviews published research. Suggests methods to overcome barriers to cooperation.</td>
<td>n/a</td>
</tr>
<tr>
<td>Maltz, E and Kohli, AK</td>
<td>1996</td>
<td>Mail survey High-tech companies 788 respondents USA</td>
<td>Middle level non-marketing managers within strategic business units. 272 manuf. 252 R&amp;D 194 finance</td>
<td>To assess the effects of the market intelligence dissemination process and identify factors that influence it. Extend the conceptualisation about the effects of trust in a sender of intelligence.</td>
<td>Conclude that inter-functional rivalry appears to be the strongest predictor of trust. Trust is determined not be personal characteristics but by the characteristics applied to the functional unit.</td>
<td>Three-stage least squares (3SLS) regression analysis</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Scope</td>
<td>Subjects</td>
<td>Study Aim</td>
<td>Theories Studied and Recommendations</td>
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<td>Maltz, Elliot</td>
<td>1997</td>
<td>Conceptual framework</td>
<td></td>
<td>To enhance Griffin and Hauser’s theory of integration by examining barriers to cooperation, internal and external environments’ effect, and the role of integration mechanisms</td>
<td>Examined the effects of environmental dynamism and structural flux on integration as well as the effects of integration mechanisms on cooperation for particular inter-functional relationships</td>
<td>n/a</td>
</tr>
<tr>
<td>Song, X Michael; Montoya-Weiss, Mitzi M; Schmidt, Jeffrey B</td>
<td>1997</td>
<td>Mail Survey</td>
<td>High technology firms</td>
<td>Develop a model of cross-functional integration relevant to all three functions</td>
<td>Examined external forces, internal facilitators and their relationship as well as the consequences of cross-functional cooperation. Concluded that at the NPD project level, management, not the environment is the primary driver of the coordination mechanisms used and cooperation achieved.</td>
<td>Factor analysis, coefficient alpha Causal path analysis Structural equation modelling</td>
</tr>
<tr>
<td>Ayers, Doug; Dahlstrom, Robert; and Skinner, Steven J.</td>
<td>1997</td>
<td>1 Computer Manufacturer</td>
<td>19 NPD projects; 12 successful, 7 failed. 115 respondents USA</td>
<td>Examine organisational processes that contribute to the success of new products.</td>
<td>Considered the effects of centralisation and formalisation, relational norms and perceived effectiveness on new product success. Recognised the link between managerial controls, interpersonal interactions and their influence on organisational outcomes.</td>
<td>Confirmatory factor analysis Structural equation modelling</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Scope</td>
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</tr>
<tr>
<td>Maltz, Elliot; Souder, William E; Kumar, Ajith</td>
<td>2001</td>
<td>Mail survey 265 high technology organisations 718 respondents USA</td>
<td>Middle level non-marketing managers within strategic business units. 272 manuf. 252 R&amp;D 194 finance.</td>
<td>How inter-functional rivalry affects the process whereby R&amp;D managers use market information. The multiple ways top management actions can affect relationships between marketing and R&amp;D. Conceptualise market information use as a multidimensional construct</td>
<td>Inter-functional rivalry found to have both direct and indirect effects on use of market information. Commonly used integration mechanisms were found to have differential effects on inter-functional rivalry and on information use.</td>
<td>Two-stage least squares regression analysis</td>
</tr>
<tr>
<td>Maltz, Elliot and Kohli, Ajay K.</td>
<td>2000</td>
<td>Mail survey 261 High tech industrial equipment manufacturers 774 respondents</td>
<td>272 manuf 252 R&amp;D 194 finance Personnel</td>
<td>Develop and test a framework to investigate the relative effectiveness of integrating mechanisms and the degree they differ in effectiveness as well as the effects of internal volatility on conflict.</td>
<td>Of 6 integration mechanisms tested, cross-functional teams was the only one that had a positive effect on reducing conflict. High levels of internal volatility led to significantly more conflict between functions</td>
<td>Ordinary least square regression</td>
</tr>
<tr>
<td>Leenders, Mark A.A.M. and Wierenga, Berend</td>
<td>2002</td>
<td>Mail survey Pharmaceutical firms 57% Europe 29% USA 12.8% Japan 148 responses</td>
<td>Marketing and R&amp;D managers</td>
<td>To summarise the relative effectiveness of a broad range of integrating mechanisms and their effect on NPD performance.</td>
<td>Highlights that although mechanisms can have a positive effect on integration, they do not necessarily lead to NPD success.</td>
<td>Structural equation modelling</td>
</tr>
<tr>
<td>Nakata, Cheryle and Im, Subin</td>
<td>2010</td>
<td>2 part mail survey U.S. High Technology Firms</td>
<td>Project Team managers and team leaders</td>
<td>To develop and test a framework for predicting and explaining team level dynamics applied to NPD team issues</td>
<td>Applied group effectiveness theory. Social cohesion, superordinate identity, market-oriented reward system, planning formalisation and management encouragement to take risk are all positively associated with integration at a team level.</td>
<td>Structural equation modelling</td>
</tr>
</tbody>
</table>
### 2.3 The Evolution of Collaboration and Collaborative Behaviours as the Desired Outcome for NPD Success

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Scope</th>
<th>Subjects</th>
<th>Study Aim</th>
<th>Theories Studied and Recommendations</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kahn, Kenneth B</td>
<td>1996</td>
<td>Mail survey Members of Electronic Industries Association USA</td>
<td>514 marketing, manufacturing and R&amp;D managers</td>
<td>How collaboration and interactions affect product development performance and product management performance.</td>
<td>Develops a model for interdepartmental integration as a measure of interaction and collaboration. Integration should comprise initiatives aimed at interdepartmental collaboration, not just team collaboration. Suggests methods for benchmarking integration.</td>
<td>Factor analysis, Cronbach alpha, regression analysis</td>
</tr>
<tr>
<td>Kahn, Kenneth B; McDonough, Edward F</td>
<td>1997</td>
<td>Mail survey Electronic Industries Association USA</td>
<td>514 managers 177 marketing 157 manuf. 180 R&amp;D</td>
<td>The relationship between co-location, integration, performance and satisfaction</td>
<td>Concluded that co-location is helpful for integrating departments however there is no direct relationship between co-location and performance. There is a direct relationship between collaboration and performance and satisfaction.</td>
<td>Regression analyses ANACOVA</td>
</tr>
<tr>
<td>Kahn, Kenneth B; Mentzer, John T</td>
<td>1998</td>
<td>Mail survey Electronic Industries Association USA</td>
<td>514 managers 177 marketing 157 manuf. 180 R&amp;D</td>
<td>To better define interdepartmental integration Should marketing interact, collaborate or do both in order to achieve success</td>
<td>Concluded that there was a significant relationship between collaboration and performance. Interaction was shown to have no significant relationship with performance.</td>
<td>Factor analysis, Cronbach alpha</td>
</tr>
<tr>
<td>Fisher, Robert J.; Maltz, Elliot; and Jaworski, Bernard J.</td>
<td>1997</td>
<td>Study 1 Mail survey 1 high-tech co. US Study 2 Replication Larger scale</td>
<td>100 marketing personnel</td>
<td>To demonstrate the effectiveness of integration is dependent on the degree to which managers identify with their function.</td>
<td>Concluded that bi-directional communication is as least as important as communication frequency in generating positive behavioural outcomes. Lower functional identification leads to improved inter-functional relationships.</td>
<td>Hierarchical moderator regression analysis</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Scope</td>
<td>Subjects</td>
<td>Study Aim</td>
<td>Theories Studied and Recommendations</td>
<td>Methods</td>
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</tr>
<tr>
<td>Jassawalla, Avan R; Sashiittal, Hemant C</td>
<td>1998</td>
<td>In-depth interviews 10 mid to large high technology industrial orgs. 4 for pilot 40 others. USA</td>
<td>Marketing, R&amp;D and Manufacturing personnel as directed by CEO’s</td>
<td>Develop conceptual definition and framework about collaboration</td>
<td>Collaboration effected by organisational – Priority of NPD, Decentralisation, Type of leadership; Participant variables – attitude to change, Cooperation, level of trust, managerial involvement</td>
<td>Content analysis (grounded theory)</td>
</tr>
<tr>
<td>Song, X Michael; Xie, Jinhong; Dyer, Barbara</td>
<td>2000</td>
<td>Mail survey Cross section of industries in Japan, China, US and UK 968 marketing managers 295 Japan, 126 China-HK 300 US 247 UK</td>
<td>Marketing managers 295 Japan, 126 China-HK 300 US 247 UK</td>
<td>Develop and test a cross-cultural conceptual model of the antecedents and consequences of marketing managers’ conflict-handling behaviours during NPD</td>
<td>Measured antecedents of marketing’s conflict handling behaviour; marketing conflict behaviour Managers should decrease avoiding and increase collaboration conflict behaviours to promote successful cross-functional integration.</td>
<td>Confirmatory factor analysis with SISREL 8</td>
</tr>
</tbody>
</table>
2.4 The Importance of Organisational Climate on NPD

When considering the factors that affect collaborative behaviours during the NPD process, the literature examined to date clearly shows a need to look beyond the traditional mechanistic devices. In order for individuals to go beyond basic interactions and behave in a more collaborative manner, management must first create an environment that is conducive to these types of behaviours. As is evident from the following literature review, though a small number of NPD researchers have considered this issue, it has not been examined specifically as it relates to the development of the collaborative behaviours required for NPD success.

Moenaert and Souder (1990), recognising that previous literature had considered the system variables and constructs affecting information transfer, were some of the earliest researchers in NPD to consider this relationship from a utilitarian perspective. They developed a causal framework to describe successful information transfer between R&D and marketing in the NPD process. Their aim was to provide theoretical answers as to which factors induce and inhibit effective information exchange. The authors defined information coming from a different function as “extra-functional information”. They argued that the value of extra-functional information is determined by channel, message, source and receiver attributes as well as organisational characteristics such as formalisation, centralisation, climate and the type of project structure. They hypothesised that:

“The more harmonious the climate between marketing and R&D ... The higher the perceived utility of extra-functional information” (p.226)

Although they discuss the importance of climate, they do not offer a definition of climate or what constitutes a harmonious one.

The authors also suggested that trust is an important moderating variable in the use of market information. When considering the elements that determine trust, they hypothesised that experience and education level would impact on the amount of trust that personnel from different functions had in each other.

This research support the study of the interaction effects between organisational climate, trust, integration mechanisms, and structure on improving functional integration during NPD that is being represented in this thesis.
Moenaert, Souder, DeMeyer and Deschoolmeester (1994) examined the R&D/Marketing interface in regards to integration mechanisms, communication flow and innovation success. Their aim was to develop a model on the antecedents and the effects of communication between R&D and marketing. The four integration mechanisms considered were consistent with those developed by Moenaert and Souder (1990) and included: formalisation; centralisation; role flexibility; and inter-functional climate. Although they found that all four integration mechanisms increased communication flows between R&D and marketing, only project formalisation and the quality of the inter-functional climate had a significant effect on project success. Their definition of inter-functional climate was largely based on Souder’s (1981, 1988) earlier findings in regards to inter-functional “harmony” and was:

“The positive degree of interest, trust, awareness and support between the R&D and marketing function” (p.32).

As with Moenaert and Souder’s (1990) earlier paper, these findings support the study represented in this thesis on the interdependences between integration devices and specifically the role of inter-functional climate during the NPD process on integration and its subsequent effect on behavioural outcomes.

These findings also highlight the need for further research into the potential link between inter-functional climate and trust and at NPD project level as represented in this study.

Moorman (1995) also examined the use of market information in NPD, but rather than focusing on the structural antecedents of information use she considered the “cultural” antecedents. Ninety two vice presidents of marketing were involved in the study. She defined organisational culture in accordance with Deshpande and Webster (1989) as:

“The pattern of shared values and beliefs that help individuals understand organisational functioning and that provide norms for behaviour in the organisation” (p.4)

She developed a matrix applying the competing values model of culture (Deshpande, Farley and Webster, 1993; Quinn, 1988) using the variables of internal versus external orientation and informal versus formal governance of the organisation. Each quadrant of the matrix was then defined according to its characteristics as clan, adhocracy, hierarchy and market cultures. The culture which was found to have the most significant effect on market information use
and new product outcomes was the “clan” culture. This culture exists in an organisation which is internally oriented with informal governance systems and stresses participation, teamwork and cohesiveness. Clan cultures were found to be high in trust, low in conflict and low in resistance to change (Zammuto and Krakower, 1991). A most interesting finding was that:

“The congruence of cultural factors was less important for predicting the presence or organisational information processes than the degree to which the culture was a clan.” (p327)

Although this research examines “culture” rather than “climate”, the characteristics associated with the “clan” culture and hence positive NPD performance are largely consistent with those described as “climate” in the preceding studies (Moenaert and Souder, 1990; Souder, et al., 1994). This highlights the need for research to re-examine these two constructs to determine the most relevant in the study of cross-functional relationships in NPD. This thesis will consider these two constructs in detail when considering the theoretical development for this study.

Aronson and Lechler (2009) also considered “project culture” in relation to fostering “citizenship” behaviour in project-based work. They defined project culture as:

“The social and cognitive environment, the shared view of reality and the collective beliefs and value systems reflected in a consistent pattern of behaviour among project members” (p.447)

They defined two types of culture traits that could be attributed to project cultures as constructive and defensive.

“A constructive culture is responsive to change, expects achievement at both individual and group levels and values cooperation. A defensive culture resists change, members behave parochially and conformity is expected” (p 446)

They considered the impact of both cultural traits on performance outcomes. They hypothesised that the behavioural expectations associated with defensive traits would have a negative effect on citizenship behaviour while constructive traits would have a positive effect on citizenship behaviour and project success. These hypotheses were empirically tested using
222 core members and project managers in 71 projects and the results analysed using LISREL. Their results confirmed that citizenship behaviour contributed to project success. The type of citizenship behaviours acknowledged were (1) eagerness to cooperate with fellow project members, above and beyond their prescribed roles and (2) a willingness to go the extra mile to provide information and constructive suggestions for improving effectiveness. These findings are in line with the types of “collaborative” behaviours believed to be associated with NPD success. Their findings also suggest that a constructive project culture facilities these behaviours. They define a constructive project culture as one which:

“entails a risk-taking, trusting and proactive approach to organisational and individual life” (p453)

The important implications of these findings are that managers need to consider less explicit methods, such as project culture as a means of facilitating the types of behaviours that are conducive to project success. One of the main objectives of this thesis is to provide managers with the “tools” necessary to facilitate a climate of trust and the associated collaborative behaviours.

Akgun, Keskin and Byrne (2010) considered the “procedural justice climate” as it relates to NPD teams. They defined the procedural justice (PJ) climate as:

“the collective perception by team members, from different functional perspectives... of the fairness of the procedures used in making decisions about project-related activities and outcomes” (p1097)

They suggested that a positive PJ climate increased the sense of harmony, enhanced cross-functional integration within NPD and expanded understanding on achieving an innovative climate within NPD projects.

It is interesting to note that in their study, organisational culture is considered to be an antecedent of the PJ climate. This again highlights the need for further investigation into these two constructs.

Akgun, et al. empirically tested several hypotheses relating to procedural justice and its impact on NPD success. Some significant findings included that a PJ climate built team capacity for collective problem solving and reinforced collective actions due to the sense of shared responsibility. They also found that an organisational culture that encouraged
cooperation, trust and feeling-sharing among team members increased the perception of procedural justice. Finally, their results showed that perceptions of fairness increased when there was value placed on customer orientation, the project team adopted high-tech bravely and encouraged new ideas and the project team had clear goals and comprehensive systems.

The following sections of this dissertation will examine a wide range of literature across several disciplines relating to organisational culture, climate and trust with the aim of determining how these impact on the behaviours of individuals involved in the NPD process and the implications for managing this interface for successful NPD performance.

A summary of the organisational climate literature examined by this review can be found in Table 2.3. Again, most of the literature reviewed use quantitative research techniques.
Table 2.3: Theoretical and Conceptual Research Related to Organisational Climate in the New Product Development Process

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Scope</th>
<th>Subjects</th>
<th>Study Aim</th>
<th>Theories Studied and Recommendations</th>
<th>Methods</th>
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<tr>
<td>2.4 The Importance of Organisational Climate on NPD</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Moenaert, RK and Souder, WE</td>
<td>1990</td>
<td>In depth interviews 16 Manufacturing companies Belgium</td>
<td>R&amp;D and Marketing Managers</td>
<td>To further develop their previous model of information transfer between Marketing and R&amp;D during NPD</td>
<td>Explored interrelationships between marketing and R&amp;D, integration mechanism, information exchange, uncertainty reduction and innovation success. Highlights the need to consider the interaction effects between task specific mechanisms, structure and climate on reducing uncertainty and improving integration in NPD.</td>
<td>Content Analysis</td>
</tr>
<tr>
<td>Moenaert, Rudy K; Souder, William E; Deschoolmeester, Dirk; and De Meyer, Arnoud;</td>
<td>1994</td>
<td>Mail survey 40 Technologically innovative firms One successful, one unsuccessful product for each Belgium</td>
<td>1 marketing and 1 R&amp;D personnel per project.</td>
<td>To develop a model on the antecedents and the effects of communication between R&amp;D and marketing</td>
<td>Only project formalisation and the quality of the inter-functional climate have a significant effect on project success. Recommends longitudinal study on effect of integration on project outcomes and interdependencies between mechanisms.</td>
<td>Paired-comparison technique. Multi-varient regression analysis</td>
</tr>
<tr>
<td>Moorman, Christine</td>
<td>1995</td>
<td>Mail survey 300 divisions of top 200 advertisers</td>
<td>Vice presidents of marketing</td>
<td>To conceive a more complete set of organisational information processes, examine cultural factors as antecedents of these processes and investigate the effects of these on NPD outcomes</td>
<td>“Clan” cultures emphasis more effective market information process than the other 3 measured. Better information process led to a competitive advantage in NPD</td>
<td>LISREL</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Scope</td>
<td>Subjects</td>
<td>Study Aim</td>
<td>Theories Studied and Recommendations</td>
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<td>---------------------------------------------------------------------------</td>
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</tbody>
</table>
| Aronson, Zvi H and Lechler, Thomas | 2009 | Surveys                           | Core members and project managers                 | To develop and test a model for the role of culture in fostering citizenship behaviour and NPD success | Citizenship behaviour in project-based work  
Constructive cultures facilitate citizenship behaviour                                                                 | ANOVA   |
| Akgun, Ale E, Keskin, Halit and Byrne, John C | 2010 | 83 manufacturing firms  
174 surveys | Senior engineers (14%)  
Functional managers (8%)  
Project managers (8%)  
Technical (53%)  
Other (including marketing) (17%) | Develops and tests a model to understand potential inter-relationship among team culture values, team members ‘collective beliefs in the fairness of procedures (procedural justice) and project outcomes in NPD project teams | PJ climate makes speed to market better. A value of employee orientation is positively related to the PJ climate. | SEM     |
2.5 Overviews and Gaps in the Literature

The first research gap to be addressed by this study will be to reassess the integration mechanisms previously associated with NPD in light of their propensity to achieve a higher level of involvement. Unlike the early studies that identified barriers to integration in relation to the amount of communication and coordination achieved, this study will consider the impact of a variety of organisational variables on the more recently desired outcome associated with the type and quality of these “interactions”, identified as collaboration, and its associated behaviours.

Within the NPD literature reviewed, a climate that is warm, trusting, and supportive and that members identify with has been shown to encourage collaborative behaviours such as improved quality of communication and cooperation. Therefore, a second gap to be addressed will be to consider the impact of management and NPD process factors on the collective perceptions of the individuals involved in NPD in order to develop the necessary climate for the encouragement of the desired collaborative behaviours.

Trust is another component considered by a number of the studies reviewed to impact on developing the required collaborative behaviours. These findings suggest that distrust, in the form of jealousy, negative attitudes, fear and hostility has a negative impact on the coordinative behaviours of individuals involved in the NPD process. However, a gap exists as to the role of management in developing perceptions of trust between individuals involved in NPD.

Although the papers in this review have identified many of the key antecedent variables at both a management and NPD project level that impact on successful NPD, this study is the first to examine these variables specifically as they relate to the development of a climate of trust at an NPD project level as a means of achieving the collaborative behaviours required for NPD success. Previous NPD researchers have acknowledged the complexities associated with trust and climates; however they have failed to adequately address how management can impact on the perceptions of the individuals involved in NPD in order to develop a climate of trust at an NPD project level. This study differs from previous research and views trust at an NPD project level as an important explanatory variable in the development of collaborative behaviours between the individuals involved in NPD.
In order to address these gaps, this study aims to combine the findings from the literature reviewed with those of trust and climate theorists in other disciplines to develop a framework of the antecedent variables that led to the development of a climate of trust at an NPD project level. The ultimate aim of the study is to make managers aware of the type of factors that they can control that impact on the climate of trust achieved during the NPD process in order to achieve collaborative behaviours and NPD success.
CHAPTER 3: THEORETICAL FRAMEWORK AND MODEL DEVELOPMENT

3.1 Introduction

This chapter presents a new conceptualisation of the relationships between functional specialists involved in new product development, addressing some of the gaps represented by inherent in existing models. Specifically, the development of a climate of trust and its antecedents will be considered as key determinants of achieving collaborative behaviours between individuals involved in the NPD process. The four factors most commonly associated with organisational climate are leadership, autonomy, motivation and trust (Mohr and Nevin, 1990). Therefore, just as trust is often seen as central to interpersonal relationships, trust is also a central aspect of organisational climate, with the overall climate of trust defined by the general likelihood that people within organisations are willing to depend on each other (McKnight and Webster, 2001). The following section will consider the theoretical development of trust in an organisational setting and the importance of climate in the NPD process in developing the collaborative behaviours required for NPD success. Organisational, process and individual components from the integration literature reviewed in chapter 2 and variables chosen from the work of trust and behavioural theorists are examined to assess their impact on the climate of trust achieved and the subsequent behaviours of the individuals involved in the NPD process. The types of behaviours examined as the optimum outcome for NPD success are derived from the existing research on collaboration. Finally, the proposed theoretical framework and propositions derived from the framework are presented.

3.2 Trust in Organisations

The depth and breadth of trust research is an indication of its importance in behavioural research and also makes it particularly difficult to cover in one study. For the purpose of this thesis, trust research considered most relevant to the area of New Product Development have been examined. Hosmer (1995) conducts an extensive review of the various approaches to
trust within organisational theory and shows how it has evolved from the expectation of an individual relative to the outcome of an uncertain event to

“the expectation by one person, group, or firm, of ethically justifiable behaviour – that is, morally correct decisions and actions based upon ethical principles of analysis – on the part of the other person, group, or firm in a joint endeavour or economic exchange” (p.393).

This concise definition based on 37 years of trust literature, highlights the connection between the moral duty of managers and the output performances of organisations.

Historically, two types of trust have been considered in relation to organisational behaviour: “Interpersonal Trust” which exists between individuals (Moorman, Deshpande and Zaltman, 1993; McAllister, 1995); and “Organisational Trust” which exists between an employee and employer (Shapiro, et al., 1992; Lewicki and Bunker, 1996; Creed and Miles, 1996). As interest in the role of trust in organisations increased, interpersonal trust gained the most attention. The definition of trust at an interpersonal level as both cognitive - “grounded in individual beliefs about peer reliability and dependability” and affective - “grounded in reciprocated interpersonal care and concern” (McAllister, 1995, p25) has been widely accepted and supported by many researchers in this area (Brewer, 1981; Cummings and Brommily, 1996; Kramer, Brewer and Hannah, 1996).

The characteristics of organisational trust have not been as widely agreed. Early theorists suggested that trust in an economic or social setting, such as in organisations was a “collective attribute” that could be motivated either by strong positive affect or emotional trust for the object of trust or by good rational reasons or cognitive trust, or more usually by some combination of both (Lewis and Weigart, 1985). Clearly, this is in line with the theories on interpersonal trust developed my McAllister (1995) that defined trust as being both cognitive and affective in nature. Though these similarities exist between the two forms of trust, there are also a number of differences that are more difficult to define.

In today’s work environment, interacting with new and unfamiliar managers or co-workers is becoming commonplace. This is due to a number of factors including the formation of cross-functional teams, mergers, enhanced communication technology or simply increased staff turnover (McKnight, Cummings and Chervany, 1998). The challenge facing managers is how
to develop some level of trust in these situations to achieve positive organisational outcomes, such as collaborative behaviours. Organisational trust theorists have developed a number of theories in response to this problem, which consider trust in a collective context.

Zucker (1986) argued that trust was a set of social expectations shared by everyone in an economic exchange and resulted from three sources: Process based trust, which was tied to a record of past operations and were limited to those whose exchange histories were known and respected; Person based-trust, which was tied to similarities between people and exchanges and were limited to those with a common cultural system; and institution based trust, which was tied to formal mechanisms such as professionalism or third-party insurances. Although this definition was not widely accepted by other researchers in this field, many of these ideas have been expanded and modified to create more modern theories on organisational trust.

One of the more popular definitions of trust within organisations also suggests that there are three types of trust developed during business relationships: deterrence-based trust; knowledge-based trust; and identification-based trust. The characteristics of each are summarised in Table 3.1. The first, deterrence-based trust, is based on consistency of behaviour and is sustained by the threat of punishment (failure of the relationship) that will occur if consistency is not maintained. The second type, knowledge-based trust, is grounded in behavioural predictability and occurs when one has enough information about others to understand them and predict their behaviour. And the third, identification-based trust, is based on a complete empathy with the other party’s desires and intentions (Shapiro, et al., 1992; Lewicki and Bunker, 1996). Although there is consensus as to the varied degrees of trust development in organisations, there is disagreement as to the relationships between these levels with some authors suggesting that it is a linear process and that one builds upon the other (Lewicki and Bunker, 1996), while others suggest that trust is more dynamic and can shift or change between states in any direction (Jones and George, 1998).

Taking these theories into account, Identification-based trust appears to be the most desirable from a new product development perspective as it is more likely to lead to interpersonal cooperation and teamwork and the strong desires of individuals to contribute to the common good, which is in line with the collaborative behaviours desired for success.
Table 3.1: Bases of Trust and Their Costs, Benefits, and Risks

<table>
<thead>
<tr>
<th>Type of Trust</th>
<th>Costs</th>
<th>Benefits</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deterrence-based trust</td>
<td>Limited number of options due to reduced number of partners</td>
<td>Greater incentive for reliability</td>
<td>Deterrence may be insufficient</td>
</tr>
<tr>
<td></td>
<td>Some monitoring required</td>
<td>Limited monitoring required</td>
<td>Partner may be short-sighted</td>
</tr>
<tr>
<td></td>
<td>Harm comes to self if it is necessary to sever multifaceted, long term</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge-based trust</td>
<td>More time for research and communication</td>
<td>Easier alignment with partner</td>
<td>Partner may make unrecognisable change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greater capacity to problem solve</td>
<td>Information may be inaccurate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greater speed in decision making</td>
<td></td>
</tr>
<tr>
<td>Identification-based trust</td>
<td>Vastly restricted option</td>
<td>No monitoring necessary</td>
<td>High costs of “divorce”</td>
</tr>
<tr>
<td></td>
<td>Loss of freedom</td>
<td>Partner can act as your agent</td>
<td></td>
</tr>
</tbody>
</table>

In response to situations where people are expected to collaborate with others with whom they have had little or no previous experience, another theory that has emerged is that of “swift trust”. This type of trust is based initially on broad categorical social structures and later on action and so relies mainly on category-driven information processing (McKnight, et al., 1998; Meyerson, et al., 1996). Rather than trust being based on experience, or firsthand knowledge of the other party (Shapiro, et al., 1992), trust in these situations relies more on institutional cues that enable one person to trust another without firsthand knowledge. In this “institution-based” trust, the parties involved:

“Believe that the necessary impersonal structures are in place to enable one to act in anticipation of future endeavours” (McKnight, et al., 1998 p478.).

In “swift” trust development, each member must believe that the institution (or organisation) reflects the actions of the people involved and be comfortable with their own role, and the role of others in that setting. Perceptions about other group members are based on beliefs and
attitudes towards particular groups, functions, or categories within the organisation rather than individual merits. Trust in these situations:

“Reflects the security one feels about a situation because of guarantees, safety nets, or other structures” (McKnight, et al., 1998, p475)

This research also suggests that this type of trust will be robust where perceived individual risk is low and more fragile in conditions where perceived risk is high, though this is not empirically tested. A recent paper by Fulmer and Gelfand (2012) questions the validity of using vulnerability (or risk) in trust research as historically there has been considerable variation in the way it has been used. Their findings suggest that it is most relevant in inter organizational relationships. However, they do concede that risk may be relevant in particular situations such as those requiring interdependence. As discussed, NPD situations can certainly be characterized as high risk situations requiring inter-functional interdependence making risk a relevant construct in the context of this thesis.

The aim of the organisation should therefore be to create positive feelings about the organisation as well as the separate units within it. These theories are in line with social psychological theory and research relating to group identification and cooperation. As NPD situations often require collaboration between cross-functional specialists in project teams that are not permanent, it appears that “swift” or “institution-based” trust is the most relevant. These research findings suggest that developing this type of trust becomes less dependent on interpersonal factors and more dependent on a variety of organisational factors. As swift trust is reliant on pre-existing perceptions, it can also be linked to organisational climate, highlighting the importance of developing a climate of trust within NPD.

3.3 The Benefits of Organisational Trust in Developing Collaborative Behaviours

Trust has been clearly acknowledged as leading to cooperative behaviour among individuals, groups and organisations, yet what is the actual effect it has on their behaviours? Williams (2001) states that:

“trust can facilitate cooperation and coordinated social interaction, it reduces the need to monitor others’ behaviour, formalise procedures and create specific contracts. It also facilitates informal cooperation and reduces
Dirks and Ferrin (2001) in an exhaustive review of the trust literature examine two different perspectives of trusts’ role in organisational settings. Firstly, trust is examined as a main effect, and secondly, as a “moderating/mediating” effect. They provide an excellent summary of past research findings regarding the role that trust has played on behaviours between individuals, superiors and the organisation. By examining these past research findings, they conclude that trust clearly performs an important role in developing beneficial behaviours (i.e., cooperation, collaboration, organisational citizenship behaviour) for the organisation. What is not as clear is the organisational situations where trust has a main or moderating/mediating effect. They therefore propose two models of trust, where the concept of “situational strength” will delineate which model applies. Organisational “situations” are considered “strong” to the extent that they provide guidance and incentives to behave in a particular way. In “weak” situations they do not provide guidance or incentives to behave in a particular way, and do not provide clear or powerful cues that lead individuals to interpret events in a similar way. They conclude that when there is a “weak” situation, trust has a main effect, but where there are “strong” situation of clear direction and many clues, trust has a moderating/mediating effect. Further, Dirks and Ferrin (2001) propose that trust has main, mediating and moderating effects dependent on the level of organisational direction and clues given to organisational members. This viewpoint has potential significance for the study of NPD activities.

Both strong and weak situations exist within organisations’ NPD processes. Strong situations exist in highly formalised NPD processes (Hauser and Clausing, 1988; Griffin, 1992, Souder, et al. 1994), weak situations exist in decentralised, matrix organisations. Management need to be able to identify their “situation” and understand the effect that trust has in those circumstances. NPD success appears to be more prevalent in organisations with decentralised decision making and NPD autonomy, therefore it seems that trust will have a main effect in successful NPD processes.
McEvily, Perrone and Zaheer (2003) extend the role of trust in organisations further by suggesting that trust be viewed as an “organizing principle”. Specifically, they propose two causal pathways of “structuring” and “mobilizing” which affect the behaviour of actors.

Structuring is:

“The development, maintenance, and modification of a system of relative positions and links among actors situated in a social space. The result is a network of stable and ongoing interaction patterns, both formal (e.g., routines and organisational units) and informal (e.g., cliques and coalitions) (p.94).

Mobilizing is:

“the process of converting resources into finalised activities performed by interdependent actors ..... Mobilizing involves motivating actors to contribute their resources, to combine, coordinate, and use them in joint activities, and to direct them towards organizational goals. (p.97)”.

They argue that, by viewing trust as an organising principle, organisations can become more organic and do not have to rely exclusively on “mechanistic coordination devices and impersonal rules” to manage interdependence in the face of uncertainty. Research findings in the NPD provide evidence that these “mechanistic coordination devices and impersonal rules” such as highly formalised NPD processes and approaches to NPD organisation alone are not effective in producing successful NPD outcomes (Moenert, et al. 1994; Song, Xie and Dyer, 2000). The model developed in this study aims to explain the modern NPD task environment faced by management and the organisational issues that are relevant for developing collaborative behaviours and effective NPD outcomes.

3.4 The Role of Trust in NPD

Although trust has received some attention in the NPD literature reviewed in chapter 2, rather than being the focus of these studies; it has been more of a secondary consideration. The limited NPD research on trust has suggested that interpersonal trust within cross-functional relationships has an effect on several issues including: resolving conflict and preserving harmony in cross-functional relationships (Souder, 1977, 1981, 1988; Moenaert and Souder, 1990); increasing the perceived quality and use of market information between functional specialists (Maltz and Kohli, 1996); improving perceived relationship effectiveness (Massey
and Kyriazis, 2007; Dawes and Massey, 2006); and improving the level of cross-functional collaboration achieved (Jassawalla and Sashittal, 1998). However, the realisation that NPD situations often require collaboration between functional specialists who may or may not have had any previous working relationship from which to build interpersonal trust, has led to the consideration by recent NPD researchers of cases where trust between members working on NPD projects is less dependent on interpersonal factors and more dependent on a variety of organisational factors. Recent studies have specifically considered trust and its relationship to cross-functional relationships and NPD success (Webber, 2002; Dayan, et.al., 2009). Research by Dayan, et.al, 2009 found that organisations engaged in NPD need to focus on:

“creating an environment in which dyadic trust between manager and NPD teams can be fostered” (p100)

Their findings suggest that “managerial trust” is facilitated by perceptions of procedural and distributive justice. They conclude that the positive perceptions of the members of the NPD team in regards to the honesty and respectfulness of their leaders and the fairness of reward distribution creates a “justice climate” in which managerial trust can be fostered which has a positive impact on group behaviour. This supports the work of previous trust theorists who suggested that the dimension for an institution-based trust climate were similar to those for procedural justice and particularly salient in situations where the individuals involved were not well known to each other (McKnight, et al.,1998). Webber (2002) specifically examines the issue of “swift trust” in relation to NPD teams. She proposes that the team leader is viewed as an agent for building quick trust in NPD teams, creating a team “climate for trust” that will improve team effectiveness.

This study differs from research to date by examining these trust-based theories along with the NPD integration theories to determine the antecedents to the development of a climate of trust within NPD from both a managerial and process perspective.

3.5 The Importance of Organisational Climate in NPD – the Culture/Climate Debate.

The nature and shape of organisations has evolved in recent years from traditional functional forms to more flexible and organic structures. As a result traditional boundaries of hierarchy and function have been eroded, placing more importance on the perceptions of managers and
the workforce. This has created research interest in organisational culture and climate and their impact on organisational performance. NPD researchers have examined the impact of both organisational climate and culture on information transfer between functional specialists and its subsequent effect on NPD success (Moenaeert and Souder, 1990; Moenaert, et al., 1994; Deshpande, Farley and Webster, 1993; Moorman, 1995; Akgun, Keskin and Byrne, 2010). Their findings suggest that organisations with high trust, management support and low conflict between the functional specialists involved in NPD are more likely to achieve NPD success. There is also a considerable body of work amongst management theorists advocating the positive effects of both organisational culture and climate on organisational creativity which has been summarised by Andriopoulos (2001). This study briefly examines the extant literature on organisational culture and climate to determine firstly the most widely accepted definitions of the two constructs and secondly the components most relevant to the study of inter-functional relationships in NPD.

There has been considerable discussion on the appropriate definition and measurement of “climate” in organisational behaviour, arising mainly from the confusion between the use of “culture” and “climate” in the literature with the two terms sometimes being used interchangeably (Mohr and Nevin, 1990; Barclay, 1991; Deshpande and Webster, 1989; Moorman, 1995; Schein, 1996; Patterson, et al., 2005; Aronson and Lechler, 2009; Akgun, et al., 2010). This confusion arises from the fact that the concepts of culture and climate both describe the employee’s experiences within their organisation, how they make sense of their organisation and also provide the context for their behaviour within the organisation (Sparrow, 2001; Patterson, et al., 2005; Aronson and Lechler, 2009). The most commonly recognised distinction is that climate is behaviourally oriented, measuring the impact of the feelings and perceptions of individuals about their organisation on their behaviour – or “what happens around here” (Mohr and Nevin, 1990; Barclay, 1991; Moorman, 1995; Patterson, et. al, 2005). Culture, in contrast is presumed to create the appropriate states of mind that precede these behavioural patterns, and relates to the shared values and beliefs between individuals in an organisation – or “why things happen the way they do” (Deshpande and Webster, 1989, p24; Sparrow, 2001; Patterson, et. al, 2005;). Climate can therefore be viewed as a surface manifestation of culture, describing the obvious, explicit and observable facets of behaviour without tapping into the more implicit underlying values, assumptions and rationales associated with culture. For example, an organisation can develop climates for
creativity, innovation, safety, etc. within the context of its overall organisational culture (Schein, 1990; Sparrow, 2001; Patterson, et al., 2005; Akgun, et al., 2010).

Despite the similarities between the two constructs, culture and climate research have historically been undertaken as parallel, non-overlapping tracks. This has been particularly apparent in the assessment instruments developed for each (Ouchi and Wilkins, 1985; Hofstede, Neuijen, Ohayv and Sanders, 1990; Sparrow, 2001; Patterson, et al., 2005). Acknowledging the difficulty in measuring underlying and even subconscious beliefs in a standardised instrument, culture researchers have largely supported the use of qualitative techniques such as interviews, case studies and observation, with their results being descriptive. As climate is often used to measure the effect of the organisational environment on an individual’s behaviour in relation to organisational output, climate researchers have favoured quantitative techniques, with more evaluative results (Ouchi and Wilkins, 1985; Sparrow, 2001; Patterson, et al., 2005). However, an evaluation of the conceptualisations and measurement techniques for both constructs suggests a merging of the two when considered in the context of organisational performance (Patterson et al., 2005). The purpose of this thesis is to clearly identify which aspects of both constructs need to be considered in relation to how the behaviours of members of the NPD team impacts on successful new product development, by examining the evolution of the literature on the culture-performance and climate-performance link.

3.5.1 Organisational Culture: Its Origins, Application and Effect on Organisational Outcomes

Since being introduced to organisational science, the concept of culture has been widely discussed and evaluated. One of the earliest culture researchers, Pettigrew (1990) defines organisational culture as the fundamental assumptions people share about an organisation’s values, beliefs, norms, symbols, language and rituals and myths that give meaning to organisational membership and are collectively accepted by a group as guides to expected behaviours. In keeping with its origin in studies of anthropology, the evolution of culture research tended to be descriptive in nature rather than aiming to operationalise the construct of culture and then empirically measure culture on its own. The tendency was for researchers to elaborate on the construct by applying other theoretical considerations such as: the
similarity between culture and strategy (Weick, 1985); or cultural aspects of organisational
decline (Harris and Sutton, 1986); cultural implications on mergers and acquisitions
(Nahavandi and Malekzadeh, 1988).

As the research interest in the area intensified a distinction arose between scholars in the
definition of culture as something an organisation is versus something an organisation has. The first definition is more in keeping with its anthropological routes and uses a native-view paradigm that is exploratory and descriptive in nature and yields thick description of the deep structure of organisations (Smircich, 1983). The second perspective sees organisational culture as a system layered by observable artifacts, shared values and underlying assumptions (Schein, 1990). This perspective encouraged the investigation of causal links such as the culture-performance link which is the one most often used by management and marketing scholars and is most likely to result in quantitative measurement instruments (Reichers and Schneider, 1990).

The culture-performance link was examined in the marketing literature by Deshpande, Farley and Webster (1993) in relation to the impact of culture on innovativeness. They provide theoretical guidance to future marketing researchers on the relevant interpretation of organisational culture from a marketing perspective and distinguish between four types of organisational cultures that can have effects on employee and manager behaviours. The four cultural types they identified are: (1) clans – which emphasise cohesiveness, participation and teamwork, (2) adhocracies – which emphasise entrepreneurship, creativity and adaptability, (3) hierarchies – which emphasise order, uniformity and efficiency, and (4) markets – which emphasise competitiveness and goal achievement. Moorman (1995) investigated these organisational cultures further in her study that aimed to establish the impact of culture on successful NPD. Her results indicated that a clan culture is the best predictor of effective NPD processes leading to better outcomes. As mentioned earlier, this culture stresses participation, teamwork and cohesiveness. The NPD “processes” are fundamentally “people processes” that involve commitment and trust between functional specialists involved in NPD. Therefore, although these studies acknowledge the culture-performance link, in order to better understand the impact on the behaviour of individuals involved in the NPD process, the climate between the functional specialists also needs to be considered.
3.5.2 Organisational Climate: Its Origins, Application and Effect on Organisational Outcomes

The history of organisational climate draws from the fields of organisational psychology and organisational behaviour. In their widely cited work Schneider and Rentsch (1988) define it as:

“The ways organisations operationalise the themes that pervade everyday behaviour – the routines of organisations and the behaviours that get rewarded, supported and expected by organisations (the ‘what happens around here’).” (p.7)

This definition was adopted by marketing theorists Deshpande and Webster (1989) who also viewed organisational climate as relating to employees’ perceptions about the extent to which the organisation is fulfilling their expectations.

The climate-performance link was acknowledged early in the development of the construct and explains the importance of creating the appropriate climate for the desired behaviours required for specific outputs (e.g. Lawler, Hall and Oldham, 1974; Kopelman, Brief and Guzzo, 1990; Sparrow, 2001; Patterson, Warr and West, 2004; Akgun, et al., 2010). It describes the measure of climate as being an individual level construct that can be aggregated at an organisational unit level, such as in NPD. A seminal work by Litwin and Stringer (1968) presented six climate dimensions that are still relevant today and are: autonomy, structure, reward orientation, warmth, support and leadership.

Within the marketing literature, the types of organisational factors that have previously been associated with climate include: the attitude of management (Jassawalla and Sashittal, 1998; Maltz, Souder and Kumar, 2001; Akgun, et al., 2010), their reward orientation (Barclay, 1991; Griffin and Hauser, 1996; Kahn, 1996), organisational identification (Barclay, 1991; Olson, Walker and Ruekert, 1995; Fisher, Maltz, 1997), goal compatibility (Griffin and Hauser, 1996, Fisher, Maltz, 1997; Gillespie and Mann, 2004), autonomy (Mohr and Nevin, 1990) and low internal competitive structures (Maltz, Souder and Kumar, 2001; Jassawalla and Sashittal, 1998; Olson, et al., 1995; Moenaert, Souder, Deschoolmeester, and De Meyer, 1994) with many of these organisational variables also being considered in models of cross-functional integration and NPD success (Deshpande and Webster, 1989; Moorman, 1995;
Fisher, Maltz and Jaworski, 1997; Nakata and Im, 2010). Souder, as early as 1981, emphasised the importance of top management in creating an organisational climate which would promote integration between functions and avoid the dysfunctional “Severe Disharmony” state which he identified as existing in many organisations between the functional specialists involved in NPD. Although climate and its associated dimensions have been acknowledged as a relevant factor in NPD, marketing theorists have failed to develop a specific measure for climate within NPD which facilitates the type of behaviours required for NPD success. Recent research has considered a “procedural justice” climate as being conducive to process effectiveness within NPD teams (Akgun, et al., 2010), however it does not fully consider all of the behavioural requirements associated with cross-functional collaboration. The following section will consider the evolution of climate measures in an attempt to address this issue.

3.6 Measuring Organisational Climate within NPD

As interest in organisational climate increased, initial researchers considered what is now referred to as “psychological climate”, which represents an individual level of analysis on the meaning and significance of the work environment (Patterson, et al., 2005). Recent authors have suggested that the measure of climate has evolved from individual perceptions to include collective assumptions, with most empirical studies considering climate from the perspective of work groups or departments within organisations, such as those found within the NPD process. In these situations individual perceptions are aggregated and treated as a higher-level construct of “organisational climate” (McKnight and Webster, 2001; Patterson, et al., 2005).

As the argument on relevant levels of analysis evolved, it was considered that for climate measures to be relevant they need to be tied to a specific point of interest, such as NPD performance. A recent study by Patterson et al. (2005), reviewed existing measures of climate to develop a measure that reflects recent ideas on the level of analysis required for measuring the impact of climate on specific performance outcomes. The results are a set of 20 variables covering aspects of human relations, internal processes, external influences and strategic decisions (Table 3.2). Most reviews of climate measurement begin with the original Organisational Climate Questionnaire developed by Litwin and Stringer (1968), as well as the multitude of measures developed since then to re-analyse the construct (Koys and DeCotiis, 1991). Patterson et al.’s (2005) study differs from this by considering the traditional climate
variables using the Competing Values framework developed by Quinn and Rohrbaugh (1983) as the theoretical grounding. (Interestingly, this is the same framework used by Deshpande, et al. (1993) and Moorman (1995) in their studies on the most successful organisational cultures for innovation.) This framework, establishes four quadrants organised along the dimensions of flexibility versus control and internal versus external orientation. The purpose of Patterson et al.’s reconceptualisation on the measurement of organisational climate was to create an instrument where researchers need not use all variables to accurately measure climate, but choose only those that are relevant to the specific performance outcomes required for their study. This represents a merging between existing views on culture and climate and their link to organisational performance. This is because, in order to measure the individual behaviours of members involved in the NPD process within an organisation, the researcher must first understand the culture most effective in predicting successful NPD outcomes, for example the clan culture (Moorman, 1995). This would suggest that in order to assess the climate that is specific to the NPD and whether or not it will lead to the desired behaviours conducive to NPD success, the most appropriate climate measurement variables would be those associated with the clan culture.

3.7 The Development of a general Model of the Antecedents of a Climate of Trust during NPD

The conceptualisation presented in this thesis considers a number of variables taken from the extant literature and their potential impact on the climate of trust within NPD at three levels: organisational; NPD process; and individual. The model represented in Figure 3.1 represents many of the variables that have been considered by previous researchers in regards to either functional integration or NPD success that impact on the behaviours of the individuals involved in NPD. Other organisational and individual level factors that potentially affect the behaviours of individuals involved in the NPD process have been drawn not only from the NPD literature but also that of the other organisational theorists that have been discussed in this chapter. In order to represent the three levels of consideration in the conceptualisation, the variables are divided into the following sections: “management-based”, relating to those that are specific to management within the organisation in general; “NPD process-based”, being those that relate specifically to the NPD process within an organisation; Individual Factors, the individual perceptions that impact on NPD; and Other organisational, which
represent factors that impact on the organisation and the process, but not be under the direct control of management. Each will be discussed individually in order to examine their likely impact on the development of a climate of trust between functional specialists during NPD and therefore, their inclusion or omission from the conceptual model for the development of a climate of trust within NPD.

Table 3.2: A Summary of the Dimensions of Culture and Climate (as per Competing Values Framework)

<table>
<thead>
<tr>
<th>Dimension of Culture*</th>
<th>Dimensions of Climate**</th>
<th>Dimension of Culture*</th>
<th>Dimensions of Climate**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Relations Approach (Clan Culture)</td>
<td>The Internal Process Approach (Hierarchy Culture)</td>
<td>Leadership Supportiveness</td>
<td>Supervisory Support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Socialisation on Entry Core Values</td>
<td>Formalisation Tradition</td>
</tr>
<tr>
<td>Structure Empowerment</td>
<td>Autonomy Involvement</td>
<td>Stability Agreement</td>
<td>Integration</td>
</tr>
<tr>
<td>Job Performance Emphasis on Rewards</td>
<td>Effort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanistic Workplace</td>
<td>Welfare</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of the Individual</td>
<td>Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Open Systems Approach (Adhocracy Culture)</td>
<td>The Rational Goal Approach (Market Culture)</td>
<td>Innovation Flexibility</td>
<td>Planning Clarity of Organisational Goals</td>
</tr>
<tr>
<td>Environment</td>
<td>Outward Focus</td>
<td>Competitiveness Quality Efficiency Pressure to produce</td>
<td></td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>Reflexivity</td>
<td>Communication Feedback</td>
<td></td>
</tr>
</tbody>
</table>

* Adapted from Sarros, Gray, Densten and Cooper (2005), Denison, (2001) and Ashkanasy, Broadfoot and Falkus (2000) ** Adapted from Patterson et al. (2005) and Patterson, Warr and West (2004)
Figure 3.1: A general Framework of Factors Potentially Affecting the Development of a Climate of Trust in the New Product Development Process

Management-Based
Organisational structure (-)
- Formalisation
- Centralisation of decisions
- Informal social systems

Top management support (+)
- Priority of NPD
- Integrated incentives and rewards
- Encouragement to take risks
- Tolerance for failure
- Conflict handling
- Fair Resource Allocation

Physical Locality (-)
- Relocation of physical facilities
- Personnel movement
- Inter-functional distance
- Spatial proximity
- Collocation

Other Organisational Factors
Structural Flux (+)*
- Internal volatility
Environmental uncertainty/Turbulence (-)

NPD Process-Based
Structure of the NPD process (-)
- Design teams
- Cross-functional teams
- Temporary task force

Individual Involvement in NPD (+)
- Role formalisation/flexibility (+)
- Cross-functional training
- Cross-functional involvement (+)
- Customer visits
- Nature of leadership
- Resource dependence
- Autonomy (+)
- Decentralisation of NPD decisions (+)
- Integrated Goals (+)

Individual Factors
Inter-functional rivalry (-)
Identification (+)
- Organisational
- Relative Functional

+ indicates factors included in the final model
- Indicates factors omitted from the final model

* Structural Flux was broken down into changes in management which was then included as a management-based factor and changes in NPD process and personnel which was included as an NPD Process based factor.
3.8 Management-Based Factors:

The management-based variables that have been shown to have an effect on NPD outcomes have been further divided into the following categories for analysis. 1) Organisational structure refers to the level of formalisation in the decision making processes within the organisation from highly bureaucratic and hierarchical to a more organic and flexible approach. 2) Physical locality refers to management decisions regarding the proximity of functions and individuals involved in the NPD process. 3) Top management support for NPD involves the management decisions that reflect the attitude of top managers towards the NPD process and the individuals involved in it.

3.8.1 Organisational Structure

Organisations can choose from a variety of structures when implementing particular strategies, including NPD (cf. Galbraith and Nathanson, 1978). Structure refers to the design of roles and administrative mechanisms to control and integrate work activities and resource flows (Olson, et al., 1995). Weber (1924) suggests that different work situations require different structures. Routine tasks such as normal production runs require high formalisation and centralisation. In contrast, more “organic”, less formalised and centralised structures are appropriate in situations of high task uncertainty, or where creativity and innovation are required, such as NPD projects (Burns and Stalker, 1961; Olson et al., 1995; Massey and Kyriazis, 2007). As such, structure has been considered in many studies of NPD success (Olson, et al., 1995; Griffin and Hauser, 1996; Maltz, 1997; Ayers, et al., 1997; Maltz and Kohli, 2000; Leenders and Wierenga, 2002). Highly formalised structures that include bureaucratic control/hierarchical directives (Olson, et al., 1995) and centralised decision making (Moenaert and Souder, 1990; Ayers et al., 1997) have been shown to hinder functional integration, thus lending support to the idea that a more organic approach where NPD decisions are decentralised is more desirable. This has encouraged researchers to consider other structures specific to the NPD process (Olson, et al., 1995; Griffin and Hauser, 1996; Maltz, 1997; Maltz and Kohli, 2000). These will be discussed in detail when considering the NPD-based variables.
3.8.2 Physical Locality

For many years relocating people to reduce the distance between marketing and other functional specialists involved in NPD (i.e. co-location) has been considered a significant driver of cross-functional integration (Griffin and Hauser, 1996; Maltz, 1997; Kahn, 1996; Leenders and Wierenga, 2002). Co-location was found to not only increase the amount of communication between the specialists (Griffin and Hauser, 1996), but also the quality of the information exchanged (Maltz and Kohli, 1996). Kahn and McDonough (1997) specifically examine co-location and its relationship to integration, performance and satisfaction. Their study provides empirical evidence that although co-location has a positive impact on integration between departments, there is no direct relationship between co-location and performance. These findings suggest that although this mechanism has long been considered a driver of integration, it is not necessary in a model for collaborative behaviours.

3.8.3 Top Management NPD Support

The role of top management has been shown to be one of the major contributors in determining the degree of cross-functional integration achieved (Gupta, et al., 1986; Song, et al., 1997; Ayers, et al.1997). Decisions such as how much integration is valued, their attitude towards risk taking, the nature of the reward system (Griffin and Hauser, 1996; Maltz, 1997; Kahn, 1996; Nakata and Im, 2010), their tolerance for failure; their conflict handling processes (Souder, 1981; Maltz, 1997; Ayers, at al, 1997; Song, et al., 2000), and the priority given to NPD (Jassawalla and Sashittal, 1998) are considered to have a significant impact on the environment of cooperation achieved within the firm and, in turn, the behaviour of the individuals. Acknowledging the changes in NPD work practices, Cooper and Kleinschmidt (2007) in an update of their 1996 benchmarking paper on critical success factors in NPD, added a fourth dimension of people: culture, climate, teams and the role of senior management. Their findings suggest that in top performing businesses there is a positive climate for innovation where the leadership team actively supports innovation with words, action and resource commitments. More recently, Dayan, et al. (2009) concluded that the positive perceptions of the members of the NPD team in regards to the honesty and respectfulness of their leaders and the fairness of reward distribution creates a “justice climate” in which managerial trust can be fostered resulting in more cohesive group
behaviour. These findings suggest that top management plays a significant role in the determining the type of climate that is most conducive to developing the collaborative behaviours required for NPD success.

3.9 NPD Process-Based

The organisational components that relate specifically to the NPD process have also been divided into categories for analysis. 1) NPD process structure refers to the use of design teams, task forces or other cross-functional teams for NPD. 2) Individual involvement refers to the level of involvement of the functions and individuals in the NPD process.

3.9.1 NPD Process structure

As highly formalised organisational structures were shown to hinder functional integration (Olson, et al., 1995; Moenaert and Souder, 1990; Ayers et al., 1997), organisations involved in NPD began to focus on more organic approaches where NPD decisions are decentralised. This led to the use of process-oriented organisational structures such as design teams, cross-functional teams and matrix structures. Empirical evidence suggests that these types of structures reduce both inter-functional rivalry and conflict (Maltz and Kohli, 2000) as well as being associated with better overall product development performance at an organisational level (Olson, et al., 1995; Maltz, 1997; Maltz, Souder and Kumar, 2001; Maltz and Kohli, 2000). These structures have also been found to lower the relative functional identification (RFI) of the individuals involved in NPD. This improves cross-functional relationships by encouraging higher bi-directional communication, which is considered to be a more “collaborative dialogue” than communication frequency (Fischer, Maltz and Jaworski, 1997). Most recent studies conclude that the use of cross-functional teams is the structure most conducive to NPD success (Barczak, et. Al., 2009) making them the ideal basis for examination in this study.

3.9.2 Individual Involvement in NPD

As companies involved in NPD move towards more organic, decentralised structures to remain competitive in the modern world, research has focused on the involvement of the individuals within the NPD process. One of the considerations is the formalisation of the
interaction between the functional specialists involved in NPD. More formalised interactions were found to improve information transfer (Moenaeart and Souder, 1990), reduce and prevent conflict (Barclay, 1991; Maltz and Kohli, 2000), lower RFI (Fischer, Maltz and Jaworski, 1997) and improve overall NPD performance (Moenaeart, et al., 1994; Ayers, et al., 1997; Cooper and Kleinschmidt, 2007). Role formalisation versus role flexibility is another aspect thought to impact on these perceptions. While role formalisation has been found to directly raise the level of integration achieved (Moenaeart and Souder, 1990; Ayers, et al., 1997), role flexibility was found to increase communication frequency, but did not have a positive effect on overall integration (Moenaeart, et al., 1994). These findings suggest that a formalised NPD process with clear functional roles is more likely to lead to the types of behaviours required for successful NPD.

Consultative decision making is one component of the NPD process that encompasses the perceived ownership of the decisions by the individuals involved in NPD and has been associated, at least at a conceptual level with increased collaboration (Olson, et al., 1995; Jassawalla and Sashittal, 1998). When decision making is in the hand of the NPD project participants, they are not only more likely to interact (Ayers, et al., 1997), but the interactions will be more effective in developing trusting behaviours (Gillespie and Mann, 2004) and collaboration (Cordon-Pozo, Garcia-Morales and Aragon-Correa, 2006). Conversely, centralised decision making has been found to increase inter-functional conflict (Barclay, 1991) and inhibit inter-functional integration (Gupta, et al., 1986; Ayers, et al., 1997).

A further aspect of the NPD process under consideration includes directing the behaviour of the individuals involved towards a common goal. Integrated NPD goals have been found to improve the amount of involvement between the functional specialists (Ayers, et al., 1997), lower RFI (Fisher, et al., 1997) and increases collaboration (Kahn, 1996). This supports the work of trust theorists who claim that shared goals and values along with consultative decision making, increase trusting behaviours and team effectiveness by aligning the actions and motivations of the individuals involved (Gillespie and Mann, 2004). Autonomy has also been considered as a key contributor to organisational climate (Mohr and Nevin, 1990).

These findings suggest that the involvement of the individuals within NPD in the types of interactions, decision making and goal setting during the NPD process is likely to impact on the climate achieved.
3.10 Other Organisational Factors

Other organisational factors have been considered by previous researchers to have an effect on NPD outcomes include structural flux, internal volatility, environmental uncertainty and environmental dynamism. These are neither management nor NPD process based. Although early researchers believed that environmental uncertainty impacted on the behaviours of NPD participants (Gupta et al., 1986; Ruekert and Walker, 1987), others have suggested that though the external environment impact on senior management and their strategic decisions, it has little direct impact on participants at an NPD project level (Song, et al., 1997). However, internal volatility or “structural flux” that refers to “the rate of change within an organisation” (Maltz, 1997, p. 87) has been shown to increase inter-functional rivalry and inhibit the use of market information (Maltz, Souder and Kumar, 2001), and increase conflict between functions (Maltz and Kohli, 2000). Although these findings suggest that structural flux will affect the behaviours of the individuals involved in NPD, they do not describe the amount or type of change that will have the most impact. That is whether changes in top management or changes in NPD process or personnel will affect the perceptions of the individuals involved and therefore the climate within NPD. Therefore, for the purpose of this study, structural flux will be divided into two parts: changes in management and changes in NPD processes and personnel. These parts will then be incorporated into the management-based and NPD-based factors with changes in management considered as a component of the other management-based factors and changes in NPD process and personnel considered as a component of NPD-based factors.

3.11 Individual Level Factors

In considering the perceptions of the NPD participants, individual factors also need to be examined. The individual level factors that have been shown to impact on NPD success include inter-functional rivalry (Maltz and Kohli, 2000), identification with the organisation, function or NPD project group (Barclay, 1991; Fisher, et al., 1997; Nakata and Im, 2010), the propensity to cooperate (Jassawalla and Sashittal, 1988) and their motivation to do so (Gupta et al., 1986). Inter-functional rivalry has been found to impact on trust which, in turn, affects the quality of communication during the NPD process and therefore the NPD outcome (Maltz and Kohli, 2000). Organisational identification has been shown to have a positive impact on
the organisational climate leading to more open communication and reduced inter-functional conflict (Barclay, 1991). Relative functional identification (RFI) has been conceptualised more recently and refers to identification with an individual’s particular function rather than with the organisation as a whole. Empirical evidence suggests that the lower the RFI, the better the quality of information transfer and overall cross-functional relationship (Fisher, et al., 1997). As is evident from these findings, the perceptions of individuals about the organisation impact on their behaviours and motivations, which in turn affect NPD outcomes.

3.12 Developing a Climate of Trust

All the research examined to this point suggests that the most likely form of trust climate required for NPD is that of “institution-based” or “swift” trust as it considers the extent of trust that individuals place on situations and structures within the organisation, rather than its people (McKnight and Webster, 2001). A climate that is “warm and trusting” is more likely to exist in organisations which people identify with and are proud to belong to, and further research indicates that it minimises the risk to individuals (McKnight and Webster, 2001; Meyerson, et al., 1996; Mayer, Davis and Schoorman, 1995; Kramer, Brewer and Hannah, 1996; Barclay, 1991). McKnight and Webster (2001) further suggest that an “institution-based trust climate” can be developed by making the participants feel secure that the environment is fair, ethical and protective. This “structural assurance” is in line with the dimension of “procedural justice” which has been used by NPD researchers in regards to organisational trust (Dayan, Di Benedetto and Colak, 2009). Dayan, et al. (2009) considered the impact of the three generally accepted components of justice: procedural; interactional and distributive on managerial trust. Procedural justice refers to the fairness of processes and conveys to the employees that management is interested in their welfare; interactional justice is the perceived fairness and respectfulness of treatment when interacting with management; and distributive justice refers to the fair allocation of outcomes. Their findings suggest that perceived procedural and distributive justice impact on NPD success by promoting managerial trust. Although interactional justice was not found to be a contributing factor in managerial trust in this case, the findings are inconsistent with previous research that suggests that interactional justice is closely related to reactions towards managers (Cohen-Charash and Spector, 2001). Akgun, Keskin and Byrne, 2010 also found that the development of a
procedural justice climate within NPD encouraged collaborative behaviours between functional specialists.

These findings support the use of the management and NPD process based factors that are considered to impact on the climate of trust, as they too can be divided into procedural, interactional or distributive issues (Table 3.3). This study aims to build on the existing research by suggesting that the perceptions of the individuals involved in NPD regarding the decisions made by management coupled with their perceptions regarding the NPD process within the organisation impact not only on managerial trust, but on the overall climate of trust achieved within NPD and the level of collaboration achieved.

**Table 3.3: Management and NPD Process Activities relating to Procedural Justice**

<table>
<thead>
<tr>
<th>Procedural Justice Components</th>
<th>Management-Based Factors</th>
<th>NPD Process-Based Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural</td>
<td>Priority given to NPD</td>
<td>Formalised NPD process</td>
</tr>
<tr>
<td></td>
<td>Attitude towards risk</td>
<td>Consultative decision making/ownership of NPD</td>
</tr>
<tr>
<td></td>
<td>Presence of integrated reward and incentive structure</td>
<td>Shared Goals</td>
</tr>
<tr>
<td></td>
<td>Conflict Handling</td>
<td></td>
</tr>
<tr>
<td>Interactional</td>
<td>Tolerance for failure</td>
<td></td>
</tr>
<tr>
<td>Distributive</td>
<td>Resource allocation</td>
<td></td>
</tr>
</tbody>
</table>

Recent research has identified the complexities of examining trust in an organizational setting (Fulmer and Gelfand, 2012). These authors believe that it is important to consider not only the level of trust being examined - interpersonal, team or organizational – but also the referent of that trust. They examine 10 years of trust literature and categorise it according to level of analysis and referent. They conclude that there are still considerable gaps in the research particularly in relation to the higher levels of trust such as team and organizational. They further acknowledge that trust does not operate in a vacuum and that one level of trust may be affected by or have an impact on trust at a different level. They therefore conclude that multi-level and cross-level models are required in trust research in order to capture some of these complexities. Their findings also highlight the importance of the examination of the trust climate for future research. They specifically discuss the importance of organizational factors on the development of trust at a team level.
Table 3.4: A Comparison between the Behavioural Outcomes associated with Trust and those associated with Collaboration.

<table>
<thead>
<tr>
<th>Behavioural Outcomes associated with Trust</th>
<th>Behavioural Outcomes associated with Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional conflict</strong></td>
<td>Song, Xie, Dyer 2000</td>
</tr>
<tr>
<td></td>
<td>Collaborating defined as “the extent to which the marketing manager seeks the common interest of all functions to achieve an integrative solution”</td>
</tr>
<tr>
<td><strong>Mutual Accommodation</strong></td>
<td>Cooperative conflict behaviour – collaborating, accommodating and compromising.</td>
</tr>
<tr>
<td><strong>Bi-directional communication</strong></td>
<td>Collaborative behaviour - Understand other functions’ needs, concerns and perspectives and to successfully communicate their own.</td>
</tr>
</tbody>
</table>

| **Mutual Accommodation**                 | Jassawalla and Sashittal 1998                    |
|                                          | Collaborative behaviour                          |
|                                          | High levels of at-stakeness – equitable input in decision making, stake in NPD outcomes and close social distances among participants. Acknowledgment of the interdependencies that exist |
| **Functional conflict**                  | High levels of mindfulness – understand and internalise the differences that exist among people, and operate from that understanding at all times |
| **Bi-directional communication**         | Constructive conflict situations – harness creativity as a result of interactions between diverse voices. All participants voting citizens in NPD processes |
|                                          | High levels of transparency – making explicit all assumptions, constraints, objectives and operating from a condition of high levels of knowledge about others |
|                                          | Exploration of innovative scenarios              |

3.13 The Positive Outcomes of a Climate of Trust during NPD

The positive outcomes associated with trust at both an interpersonal and organisation level are aligned with the behaviours of bi-directional communication (Mohr and Nevin, 1990; Fisher, Maltz, et al. 1997, Maltz and Kohli, 1996), mutual accommodation (Fisher, Maltz et al. 1997) and functional conflict (Menon, et al., 1996, Souder, 1977, 1981, 1988; Moenaert and Souder, 1990). There is consensus amongst NPD researchers that these outcomes are appropriate measures for assessing collaborative behaviours in cross-functional relationships (Table 3.4).
This indicates a merging between researchers from the trust area and researchers in the NPD area and highlights the importance of trust and particularly trusting climates in achieving these behaviours. These findings suggest that organisations that provide climates of “trust” within NPD are more likely to develop the kind of behaviours conducive to collaboration and, subsequently enjoy NPD success.

3.14 Proposed Model and Propositions

The aim of this thesis is to expand on existing theory by incorporating the findings of trust and NPD scholars to show that a climate of trust is a relevant and important construct that leads to collaborative behaviours and ultimately NPD success. The model developed for this thesis addresses a number of the concerns of Fulmer and Gelfand (2012) and offers a multi-level analysis of trust where a number of levels of trust and referents are considered. At an individual level, trust is considered in reference to the NPD team. This level of trust is determined by the level of “swift” trust that exists as well as the level of perceived risk each individual involved in the process feels. These components are considered the most important as for the individual level of trust to be considered “institution-based” or “swift”, participants must also feel secure about their environment, which in this case refers to the environment (or climate) within NPD.

The model presented by this thesis further examines trust at a higher, NPD project or team level by considering the factors that impact on the climate within NPD from a cognitive perspective in reference to both the team (NPD process) and the organisation (management), and an affective perspective through their level of functional identification at an NPD project level. This supports the work of other trust theorists who have suggested that trust in an economic or social setting, such as in organisations is a “collective attribute” that can be motivated either by strong positive affect or emotional trust for the object of trust or by good rational reasons or cognitive trust, or more usually by some combination of both (Lewis and Weigert, 1985).

Determining the most appropriate antecedents and consequences of trust at a number of different levels was also identified as needing cross-examination. Fulmer and Gelfand (2012) further suggest that the relevance of factors may vary according to the level of trust and referents used. My thesis aims to determine the most relevant factors for the development of
a climate of trust within NPD by considering the antecedents of a number of relevant
constructs such as integration, collaboration, justice climates and trust in its model
development. In order to determine the most appropriate antecedents, factors believed to be
relevant to NPD project level trust in the NPD team were examined under the construct “faith
in the NPD process”. Factors believed to be relevant to NPD project level trust in the
organisation were examined under the construct “faith in management”. The resultant
framework offers an insight into the most relevant organisational factors for the development
of a climate of trust within NPD across these multiple levels.

Fulmer and Gelfand (2012) also acknowledge the difficulty in measuring affective trust at the
higher levels of analysis. For the purpose of this thesis, the affective component of trust at an
NPD project level will be considered by examining the organisational identification of each
member of the NPD team.

The behavioural outcomes in the model provide a synergy between trust and NPD research by
representing the positive outcomes associated with trust as well as the collaborative
behaviours associated with NPD success making the climate of trust the most suitable
theoretical lens for NPD success. The new conceptualisation provides managers with a new
objective, the development of a climate of trust, in their quest for NPD success.

3.14.1 Theoretical Framework

The conceptual model draws its theoretical framework from the marketing literature as well as
studies in management and organisational psychology. Firstly, the model incorporates the
system-structural perspective to examine the relationship between marketing and other
functions during NPD. This view holds that by exploring the inter-relationships among the
environment, the organisational structures and processes and outcomes, one can examine
social systems such as those found in inter-functional relationships (Reukert and Walker,
1987). The components used for the organisational structures and processes within the model
Sparrow, 2001; Patterson, et al., 2004; Patterson, et al., 2005). This theory explains the
importance of creating the appropriate climate for the desired behaviours required for specific
outputs. It supports the work of trust theorists in suggesting that a measure of climate must
incorporate both cognitive and affective components (Kopelman et al., 1990). Most
importantly it describes the measure of climate as being an individual level construct that can be aggregated at an organisational unit level, such as in NPD projects or teams.

The theoretical contribution of the trust theorists is how to conceptualise “aggregated” or “collective” constructs such as the climate of trust. Fulmer and Gelfand posit the use of consensus compositional models (Chan, 1998) which assume that individual level trust in a particular referent (such as the NPD team) is shared across individuals in a unit (such as the NPD team) and therefore can be aggregated to measure the NPD project or team level trust in other referents (such as the NPD team itself or the organisation as a whole). Several theoretical models have been used when analyzing the various levels of trust such as the embeddedness perspective, social information processing theory, attribution theory, social exchange theory, social identity theory and in and out group dynamics. Trust theorists also believe that the existence of trust within these climates leads to better teamwork and more collaborative behaviours which, in turn, are the desired outcomes for NPD success (Jones and George, 1998) and that the examination of trust climates is a natural direction for researchers in the field (Fulmer and Gelfand, 2012)

3.14.2 Faith in Management

A number of management-based organizational factors shown to impact on integration, climate and trust will be examined under the construct faith in management in order to determine the most relevant antecedents for the development of NPD project level trust in the organisation. Previous research suggests that management plays a significant role in the perceptions of the individuals involved in NPD. The preceding discussion has shown that top management support in the form of management’s attitude towards risk, the nature of the rewards and incentives offered, tolerance for failure (blame placing), conflict handling procedures, the priority given to NPD and their resource allocation can all impact on the perceptions the individuals involved in NPD have on top management overall. Research also suggests that the amount of “structural flux” or change can impact on behaviours, so changes specific to top management will also be considered in this framework. The following framework proposes that the overall perceptions of the individuals involved in NPD on these management factors will impact on the climate of trust by their effect on each individuals “faith in management”. The framework suggests that a high level of faith in management is more likely to create a climate of trust within NPD.
P1: A high level of faith in management leads to a higher climate of trust within NPD

3.14.3 Faith in the NPD Process

A number of NPD-based factors previously associated with integration, climate or trust will be examined under the construct faith in the NPD process to determine the most relevant factors in the development of NPD project level trust in the NPD team. From an NPD process perspective, the types of factors that have been shown to impact on the perceptions of the individuals involved in NPD include the formalisation of the process, the type of decision making and level of ownership as well as the individual’s commitment to shared goals. External activities such as the amount of change within the NPD process and personnel may also impact on their perceptions. Therefore, a further cognitive component likely to impact on the climate of trust is “faith in the NPD process” overall. The more faith the individuals have in the process, the higher the climate of trust within NPD.

P2: A high level of faith in the NPD process leads to a higher climate of trust within NPD

3.14.4 Organisational Identification

Previous research on both NPD success and climate have indicated the importance of organisational identification on behaviour with relative functional identification (RFI) having a negative impact on collaboration. Therefore, the following framework will consider the affective component associated with the development of a climate of trust to be the organisational identification of the members of NPD at an NPD project level. The climate of trust will be higher within NPD if NPD members identify more with the organisation or NPD team than with their functional areas.

P3: A high level of organisational identification leads to a higher climate of trust within NPD
3.14.5 NPD Outcomes

The climate-performance link theorises that it is essential for organisations to develop an appropriate climate in order to foster the positive behaviours associated with specific activities such as NPD (rf. Lawler, Hall and Oldham, 1974; Kopelman, et al., 1990; Sparrow, 2001; Patterson, Warr and West, 2004; Akgun, et al., 2010). Previous research has shown that the behaviours most likely to impact on NPD success are collaborative behaviours such as of bi-directional communication, mutual accommodation and functional (as opposed to dysfunctional) conflict (Jassawalla and Sashittal, 1998; Fisher, Maltz, et al. 1997, Maltz and Kohli, 1996; Kahn, 1996; Menon, et al., 1996, Souder, 1977, 1981, 1988; Moenaert and Souder, 1990; Mohr and Nevin, 1990). Trust researchers believe that trust has a positive impact on the development of these desired behaviours (Cordon-Pozo, et al., 2006; Gillespie and Mann, 2004; Dirks and Ferrin, 2001). Therefore, the proposed framework considers that the outcomes associated with the development of a climate of trust within NPD will be those types of collaborative behaviours which have been shown to lead to NPD success.

\[
P4: \text{A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.}
\]

Figure 3.2: Theoretical Framework for Developing a Climate of Trust between Cross-Functional Specialists within NPD
The data collected for this thesis will be analysed in relation to the above framework and its associated propositions. The aim of the analysis is to answer the following research questions:

5. How do individuals involved in NPD perceive the climate of trust within NPD?

6. Do faith in management, faith in the NPD process and organisational identification at and NPD project level affect the development of a climate of trust within NPD?

7. How does the climate of trust within NPD affect the desired collaborative behaviours of the individuals involved?

8. How can management facilitate the development of a climate of trust within NPD?

The following chapter will discuss the research design and methods used to facilitate this analysis.
CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

This chapter discusses the methodology used to explore a number of research questions in relation to developing a climate of trust within cross-functional relationships during NPD. The first section will describe the research design and methodology chosen for this study and explain the underpinning philosophies for their choice that were supported by the results of an exploratory pilot study. Once this has been established, the data sources and collection methods will be determined in order to best examine the propositions identified by the theoretical framework established in chapter 3 (Figure 3.2). The final section will describe how the within-case and cross-case analysis methods will be used to induce the theoretical findings in relation to these propositions.

4.2 Research Design and Methodology “best fit”

It is essential in a research environment to find the most reasonable “fit” between the research question and the chosen methodology (Edmondson and McManus, 2007). One way to achieve this “fit” is for the researcher to first distinguish their position within the community of scholars with whom they would like their work to be associated. Each researcher approaches the world with (1) a set of ideas, a framework (theory, ontology) that (2) specifies a set of questions (epistemology) that he or she then (3) examines in specific ways (methodology, analysis) (Denzin and Lincoln, 2005). The basic set of beliefs that make up the researcher’s epistemological, ontological and methodological premises are known as a paradigm or – or interpretative framework (Denzin and Lincoln, 2005).

The first assumption, ontology is defined as “assumptions that we make about the nature of reality” (Easterby-Smith et al., 2004: 31) and can be subjective or objective. Epistemology is “a general set of assumptions about the best ways of inquiring into the nature of the world” (Easterby-Smith et al., 2004: 31). Methodology is a “combination of techniques used to enquire into a specific situation” (Easterby-Smith et al., 2004: 31).
In order to establish the research paradigm that best “fits” this study, the objectives of the study were considered in reference to the three elements listed above. The first is the identification of the most relevant research philosophy (ontology) in which to position the given study. This choice impacts on the second element for consideration being the research approach (epistemology) that will be adopted. The chosen strategy then has implications for the third and final element being the methods that will be employed to undertake the research (Creswell, 2003).

The remainder of the chapter will outline the design and methodology decisions made for this study in relation to these three elements.

### 4.2.1 Research philosophies in marketing management

The research philosophy chosen will guide and influence the entire research process. It underlies the researcher’s views on the world and the community of scholars with whom they choose to be associated (Noble, 2002). In the field of marketing management, a variety of research philosophies, from positivist to interpretivist can be adopted depending on the circumstances and the nature of the topic or research problem. There are also a number of other research philosophies such as feminism, racialised discourse, critical theory, cultural studies and queer theory that are less likely to be utilised in relation to marketing research and will therefore not be considered in the remainder of this chapter (Denzin and Lincoln, 2005).

Where ontology refers to “reality” as perceived by the researcher, the positivist ontology holds that the world is external and objective. In this view the epistemology, or relationship between the reality and the researcher, is perceived to be independent, with researchers distancing themselves between the object of research and their own personal experience. Therefore the methodologies used predominantly concentrate on description and explanation and are often, though not always, quantitative in nature (Carson, Gilmore, Perry and Gronhaug, 2001). The quantitative approach is generally deductive, operationalising relationships such as cause and effect and allowing for more generalisation of the findings (Denzin and Lincoln, 2005).

Interpretism is viewed as lying at the other end of the spectrum, where multiple realities are perceived to exist and the results are subject to individual perspectives. In order to capture as
much of reality as possible, this epistemology relies on multiple research methods and requires researcher involvement to interpret the data so as to understand what is happening in a given context. The methodologies in this case concentrate on understanding and interpretation. Qualitative techniques that use terms such as credibility, transferability, dependability and confirmability are thus likely to replace the usual positivist criteria of internal and external validity, reliability and objectivity so that rather than leading to generalisable “laws” they offer a more practical understanding of process and actions (Carson, et al., 2001; Miles and Huberman, 1994; Denzin and Lincoln, 2005).

Although there has been considerable debate as to the most effective philosophy to use in understanding marketing phenomena (Hunt, 1994), there is now a more general agreement that it is both unwarranted and unnecessary to take such a polarised position on the extremes of positivism vs. interpretism and that it is more useful to look at a number of theories depending on the objective of the research.

In the area of NPD research, there has been a strong tradition of both quantitative and qualitative studies. However, much of the literature favoured a positivist research approach and the use of quantitative research methods. Many models have been developed in an effort to identify the key antecedents to achieving integration between functional specialists during the NPD process (Gupta, Raj and Wilemon, 1986; Ruekert and Walker, 1987; Griffin and Hauser, 1996). It has been a generally accepted practice for these models to be used as the basis of further empirical study in the area across a variety of cultural settings either into a single new country (Song, Montoya-Weiss, and Schmidt, 1997) or across several cultures and indeed continents (Song, Xie and Dyer, 2000; Leenders and Wierenga, 2002).

Having consulted with the relevant literature and in keeping with the precedents set, these models were also considered in relation to the initial research problem. The complexity of the research question, being how individuals perceive the climate of trust, whether the development of a climate of trust impacts on the collaborative behaviours of the individuals involved and whether management can facilitate the development of such a climate also required the consideration of models in regards to collaboration (Kahn, 1996; Kahn and Mentzer, 1998; Jassawalla and Sashittal, 1998) and trust (McAllister J, 1995). These too favoured the use of quantitative research methods. The theoretical development, testing and
empirical findings in these studies gave the author enough of a grounding to develop a conceptual model (Figure 3.2).

An accepted practice for empirical evidence in the NPD literature to test theory is to design survey instruments that can be tested statistically (Ruekert and Walker, 1987; Ayers; Dahlstrom; and Skinner, 1997; Maltz and Kohli, 2000; Leenders and Wierenga, 2002; Song, Xie and Dyer, 2000; Fisher; Maltz; and Jaworski, 1997). This practice therefore formed the starting point for this study. A small number of in-depth interviews were organised to verify the relevance of the model’s constructs and ensure they were appropriate in an Australian context prior to being included in a statistical survey instrument that would be distributed nationally to empirically test the model.

4.2.2 Results from initial fieldwork

An interview protocol was developed based on the constructs identified in the theoretical framework: faith in management; faith in the NPD process; organisational identification; climate of trust; and collaborative behaviours. Five initial interviews were conducted with managers in charge of new product development in a range of organisations. From this, two key issues emerged that were of concern. Firstly, to prioritise their concerns with the NPD process, the first question always asked was “if you could, what would you change about the new product development process in your organisation”. The answer to this question was one of the key issues in re-evaluating the measurement method to use for this study. The answers included things such as having a more market driven approach to NPD and having a better idea generation and assessment process, including involving more people. None of the participants mentioned trust or the climate within the team. As this is the main focus of the study, this raised immediate concern as to the relevance of the study in an Australian context and whether this potential gap in the literature was relevant in a real life setting.

The second issue that emerged as the interviews progressed, was that it became apparent that people involved in new product development in Australian manufacturing firms did not necessarily have a shared understanding of some of the key terms involved in the research such as “climate”, “collaboration” or even “trust” and as such needed considerable guidance in order to examine these constructs. This guidance from the interviewer was posing the potential for introducing bias due to leading the respondent. For example, in regards to
climate, within the conceptual model, the climate of trust was made up of several variables relating to individuals' perceptions of the organisation and its NPD process. However, when asked to describe the climate of NPD at their workplace, responses were typically “what do you mean by climate” and “when you say climate, I think you have a particular interpretation of the word”. After the initial interviews, the interviewer was required to give a basic description of what was meant by climate before asking the related questions in the questionnaire. Responses then took the form of simple attitudinal summaries such as “fairly positive”, therefore still failing to address the reasons behind these attitudes.

Trust has many manifestations in an organisational context. As well as considering both the affective and cognitive aspects of trust, other considerations include the “collective” nature of trust in an organisational setting and whether it implicitly exists or has to be developed over time. It was difficult for participants to express these complexities even within an in-depth interview. Although most participants agreed that there was some level of competency based trust attributed to the other functions involved in NPD, they struggled to explain why it exists or how it developed. This highlighted how difficult it would be to examine this construct in a formal and inflexible measurement instrument.

These results suggest that the boundaries between the phenomenon being studied (i.e. the climate of trust) and the context within which they exist (i.e. NPD activity) are not clearly evident (Yin, 1984). This may be a result of the attempt to merge the two research streams of trust and NPD success. Issues such as these consequently led to a complete ontological shift in the choice of research methodology that would best suit these research needs, away from a formal testing of understood concepts to an exploratory approach to capture the complexity of the perceptions of the individuals involved in NPD regarding the climate of trust.

### 4.2.3 From a Positivist to an Interpretivist Approach

In order to re-establish the research paradigm that best “fit” this study, the objectives had to be re-considered taking into account these exploratory findings. It was determined that a conceptual framework for the climate of trust in the NPD process could not be developed without first understanding the perceptions of the individuals involved in an Australian context, therefore leading this study towards a more interpretivist approach.
However, even within the interpretivist paradigm, a range of theories can be incorporated along a continuum between positivism and interpretivism depending on their origin and structure (Figure 4.1). Each of these has a different emphasis, depending on the researcher’s basic beliefs, their focus and their preferred data collection methods.

The nature of this study lends itself to realism theory, which lies at the positivist end of the spectrum. A piece of research using a realist approach will examine “typical” marketing practices within an industry, or in the case of this study, a process, by triangulating the perceptions of all the individuals involved in the process (Carson, et al., 2001). Therefore, although the interpretivist paradigm lends itself to a qualitative research approach, the specific design and methodology chosen will be driven by this realism theory.

**Figure 4.1: Continuum of research theories (based on Carson, et al., 2001)**

![Continuum of research theories](image)

### 4.2.4 A Qualitative Research Approach

A qualitative research approach provides flexibility and suitability when used in the interpretation of marketing management situations, particularly in an organisational context (Carson, et al., 2001). The strengths of qualitative research lie in the fact that they have a focus on “real life” events happening in a natural setting. This is qualified by the “local groundedness” of the approach, meaning that data is collected in close proximity to where the process or action occurs. A further advantage of qualitative research is its ability to reveal the complexity of issues through the rich and holistic nature of the data collected made possible through the flexible nature of the data collection methods used. Finally, qualitative data is most suited to locating the perceptions, assumptions, prejudgments and presuppositions people use to give meanings to events and processes (Miles and Huberman, 1994)
There are five factors that need to be considered in deciding upon the methodological approach to use in order to address the research questions proposed by this study. These considerations include: the role of prior theory; whether the focus is on theory building or theory testing; whether the research is inductive or deductive; whether the research will be structured or unstructured; and the role of the researcher (Carson, et al., 2001).

The first three considerations can be examined together. The role of prior theory can be quite distinctive depending on the research paradigm that the research has positioned their study in. Positivists typically consult prior theories at the beginning of their research in order to arrive at hypotheses for theory testing. This is considered to be deductive research (Bryman 2004). Interpretivists use theory at various stages in research to help describe the problem and how to deal with it (Carson, et al., 2001). The aim is to develop theory through an inductive process. It may start from a “clean slate” (i.e. no prior theory), often described as “grounded theory” (Glaser and Strauss, 1967) or may identify frameworks and concepts from established theory or professional practice and examine relationships between these concepts (cf. Dul and Hak, 2008). A further perspective on the role of theory in research design considers the maturity of the area of theory being explored. As greater consensus is reached among scholars, theoretical contributions tend to take the form of theoretical models and quantitative tests. Conversely, the less that is known about the research problem, the greater the likely contribution of exploratory qualitative research. Intermediate theory can be used to describe research that presents provisional explanations, introduces new constructs or proposes relationships between established constructs. In this case both qualitative and quantitative data collection methods can be appropriate. These considerations impact on the structure of the research design (Edmondson and McManus, 2007).

The role of theory in the current study is extensive. As is evident from the literature reviewed in chapter two, marketing scholars have been developing and testing theories in regards to cross-functional relationships in new product development for decades. Concurrently, trust theorists across several disciplines have been examining the role of trust in a variety of settings. The resultant conceptual framework aims to bring these two theoretical approaches together in an attempt to incorporate the work on trust into the specific domain of the new product development process. The results, although not “emergent”, are still inductive and according to Edmondson and McManus can therefore be considered intermediate theory building.
The next two considerations are if the structure of the research design and the role of the researcher. Even within the interpretivist paradigm, cases can be made for a tight, pre-structured qualitative design or for a loose, emergent one. However, it is acknowledged that much qualitative research lies between these two extremes (Miles and Huberman, 1994; Carson, et al., 2001).

Miles and Huberman (1994) suggest that “tighter designs are a wise course for researchers working with well-delineated constructs” (p. 17). As the prior theory in this study is substantial, it suggests that a tighter design would be the most appropriate. In relation to the role of the researcher, taking an interpretivist approach has already dictated that the researcher will be an instrument of the study (Carson, et al., 2001). The experience and expertise of the researcher is therefore paramount in ensuring the quality of the research. Tighter designs serve to provide clarity and focus for beginner qualitative researchers (Miles and Huberman, 1994). As an early career researcher, this further establishing the need for a tighter research design in the current study. What remains is the decision as to which qualitative research methodology design supports intermediate theory building by incorporating a tighter research design.

4.2.5 Qualitative Research Methodologies

The set of interpretive activities that make up qualitative research do not advocate a single methodological practice over another, leading to a wide range of approaches being available to qualitative researchers (Denzin and Lincoln, 2005; Carson, et al., 2001). Figure 4.2 describes the research methodologies available to qualitative researchers. They are distributed according to the philosophical approach taken by the researcher. As one moves left along the continuum, the more structured and deductive the methodology.

Which methodology to use can be decided by considering a further three criteria: the type of research question posed; the extent of control an investigator has over actual behavioural events; and the degree of focus on contemporary as opposed to historical events (Yin, 2003).
Defining the research question is one of the most important steps taken in a body of work. Typically they take the form of “who”, “what”, “where”, “how” and “why” questions. The current research questions as represented at the conclusion of chapter three are as follows:

1. How do individuals involved in NPD perceive the climate of trust within NPD?
2. Do faith in management, faith in the NPD process and organisational identification at and NPD project level affect the development of a climate of trust within NPD?
3. How does the climate of trust within NPD affect the desired collaborative behaviours of the individuals involved?
4. How can management facilitate the development of a climate of trust within NPD?

In this study, the researcher has no control over behavioural events as they will have already taken place during the new product development process and exist within the context of the organisation. Although the study will consider past new product development experiences, it also has an interest in the current climate between individuals involved in new product development and even the participants’ perceptions of likely future events.

Considering the qualitative methodologies listed, the research questions being addressed and the context of the study, case studies are considered an appropriate method. Case-based research tends to address research problems within the interpretivist paradigm, that is a “how” or “why” questions, because case-based research can be explanatory, theory-building research.
incorporating existing theory into the case situation and uses a relatively structured approach (Carson, et al., 2001). Yin surmises: “Case studies are the preferred strategy when how or why questions are being posed, when the investigator has little control over events and when the focus is on a contemporary phenomenon within some real-life context” (Yin, 1984, p. 13).

4.2.6 Case Study Methodology

The case study is used in many settings including, of relevance to this research, organisational and management studies to understand the dynamics present within particular management processes (Carson, et al., 2001; Eisenhardt, 1989). Yin’s (1984) widely accepted definition states that:

“A case study is an empirical enquiry that: Investigates a contemporary phenomenon within its real life context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used” (p. 23).

Case studies can be used for various purposes such as to provide description, test theory or generate theory (Eisenhardt, 1989). In this study the case studies are used to test the initial framework (Figure 3.2). This methodology can involve either single or multiple case study designs and numerous levels of analysis, each with their distinct advantages and disadvantages (Yin, 1984; Eisenhardt, 1989). Generally, multiple cases are deeply grounded in empirical evidence enabling broader exploration of research questions and theoretical elaboration. Therefore, the overall study is regarded as being more robust, generalisable and testable. Many of the advantages of the multiple case study design are dependent on replication logic. That is, each case serves as a distinct experiment that stands on its own as an analytical unit. If similar results, or predictable differences, are found in repeated case studies, then we develop greater confidence in the findings (De Vaus, 2006). The cross-case findings then serve as a replication, contrast and extension to the emerging theory, making multiple case studies a stronger base for theory building research (Yin, 1984; Eisenhardt, 1989). The research design for this study will follow the format described in Figure 4.3.
Figure 4.3: Multiple Case Study Methodology (adapted from Yin, 1984)

1. Develop Theory
2. Select Cases
3. Develop Data Collection Protocol
4. Conduct 1st Case Study
5. Write Individual Case Report
6. Draw Cross-Case Conclusions
7. Modify Theory
8. Develop Policy Implications
9. Conduct 2nd Case Study
10. Write Individual Case Report
11. Write Cross-Case Report
12. Conduct Remaining Case Studies
13. Write Individual Case Report
14. Draw Cross-Case Conclusions
4.3 Method Used in this study: Multiple Case Design Settings

According to Figure 4.3, multiple case design begins with the development of theory. The preceding chapters have identified the gaps in the existing literature in regards to developing collaborative behaviours between cross-functional specialists during the NPD process. Trust climates were also examined within the existing NPD literature as well as across other disciplines. This led to the development of a conceptual framework (Figure 3.2) and propositions pertaining to the role of trust climates in developing the desired collaborative behaviours required for successful NPD.

The conceptual framework (Figure 3.2) considers the climate of trust as measured by the level of swift trust and the relative perceived risk associated with NPD in the organisation. This climate is further affected by the level of trust at an NPD level as a function of the collective perceptions of the NPD team in relation to their faith in management and the NPD process as a whole (cognitive), and their organisational identification (affective). It further suggests that a climate of trust has a positive impact on the collaborative behaviours achieved between the individuals involved in NPD that have been shown to lead to NPD success.

These constructs are tested using a number of factors at both a management and NPD level previously associated with integration and NPD success in order to gauge their propensity to achieve the desired climate and collaborative behaviours believed to be a higher order than mere integration.

The framework proposes that a high level of faith in management is more likely to create a climate of trust within NPD. The factors considered to impact on the overall perceptions of the individuals’ “faith” in management include:

- management's attitude towards risk;
- the nature of the rewards and incentives offered;
- their tolerance for failure (blame placing);
- their conflict handling procedures;
- the priority given to NPD;
- their resource allocation; and
- the amount of “structural flux” or changes specific to top management...
The next proposition is that the more faith the individuals have in the process, the higher the climate of trust within NPD. The factors considered to impact on the overall perceptions of the individuals’ “faith” in the NPD process include:

- the formalisation of the process;
- the type of decision making;
- level of ownership;
- their commitment to shared goals; and
- the amount of “structural flux” or change within the NPD process and personnel.

The framework further proposes that climate of trust will be higher within NPD if individuals identify more with the organisation or NPD team than with their functional areas.

A high climate of trust is believed to be achieved if there is high ”swift” trust and low perceived risk by the individuals involved in NPD in reference to the NPD team.

The final proposition is that the development of a climate of trust will further impact on collaborative behaviours and positive NPD outcomes in the form of:

- Greater bi-directional communication;
- Greater mutual accommodation;
- Greater functional (as opposed to dysfunctional) conflict; and
- Successful NPD.

The above conditions are resultant from the theoretical development from chapter 3 and underpin the questions in the interview protocol used in the case studies (see appendix 1). This “conceptual” strategy is considered the most appropriate in this study as it gives the inexperienced researcher some orienting constructs that can be tested and observed in the field (Miles and Huberman, 1994).

A traditional concern of case study analysis is their validity. Easterby-Smith et al (2002) acknowledges these reservations but believes that it is a valuable notion for all researchers, “provided the researcher is committed to providing a faithful description of others’ understandings and perceptions” (Easterby-Smith et al, 2002, p89). Previous case study
researchers have attempted to allay these concerns by adjusting positivist validity criteria of construct validity, internal validity, external validity and reliability to case study research (Beverland and Lindgreen, 2010). These issues are addressed in this study as follows:

- Construct validity is supported by the use of multiple interviews within each organisation with individuals from different functions as well as different hierarchical levels to achieve triangulation. Readers are also provided with a chain of evidence through cross-cases tables and quotes from informants.
- Internal validity is addressed through matching concepts across cases. Finding that existing literature supports the findings of the case study research, and vice versa also supports internal validity.
- External validity is achieved through the use of replication logic with diversity of the organisations being analysed further supporting the generalisation of the theory.
- Reliability is based on the standardised interview protocol and analysis techniques used. All constructs being examined are well defined and grounded in extant literature.

The final result of this process is to elaborate on the existing theories to determine a framework for the development of a climate of trust within NPD.

4.3.1 Selecting the Cases

The next stage of multiple case design is selecting the cases. The sampling method used in multiple case design highlights one of the main differences between a quantitative survey design and the qualitative multiple case design. Where the former relies on “sampling” logic to obtain the optimum results, the other relies on “replication” logic. Replication logic predicates that each case must be selected so that it either (a) predicts similar results or (b) produces contrary results but for predictable reasons. While quantitative research design uses random or stratified sampling to reflect the entire “universe” or pool of potential respondents, in multiple case design cases are selected according to their contribution to the theoretical framework that has been developed for the study (Eisenhardt and Graebner, 2007). Theoretical contributions can include: replication; extension of theory; contrary replication; and elimination of alternative explanations (Yin, 1984; Eisenhardt and Graebner, 2007). Therefore, it is imperative in theoretical sampling that a rich theoretical framework is
developed that states the conditions under which a particular phenomenon is likely to occur (Yin, 1984). The theoretical sampling approach used in the current study examines “typical” cases with the view to discovering clear pattern recognition of the central constructs, relationships and logic of the given framework.

The cases chosen for the study are Australian manufacturing companies that use cross-functional teams in their new product development process. The new product development process is assumed to include at least these five elements: opportunity identification and selection; concept generation; concept evaluation; development; and launch (Crawford and Di Benedetto, 2010). The cases are considered “typical” in that the reasons for the perceptions individuals have of the process within the organisation will be similar despite the size or type of organisation. The four cases represent a variety of products and industry sectors: heavy industrial manufacturing; heavy vehicles; consumer food and beverages; and building products. They are also diverse in the size and scope of their operation from a small, single market operation of less than $13 million where the Managing Director has a central impact on all aspects of the organisation, to a multi-national, with total revenues of $3.5 billion with a multitude of products and brands all with their own NPD projects. The cases also vary in the competitive forces within their industries. The building products industry for example has a limited number of competitors and new product development is a slow process requiring highly technical expertise. The food and beverage industry on the other hand is highly competitive requiring quick to market NPD processes. Market orientation is another point of difference. The size and cost of expenditure in the heavy vehicle industry means that new products are often customised to suit the needs of particular customers as opposed to the heavy industrial manufacturing industry in which new products can be the result of process refinements and are developed prior to establishing a market for them. This range of cases further enables the study to consider the impact, if applicable of the size and scope of the organisation and, therefore of the NPD process on the perceptions of the individuals involved. Table 4.1 provides a summary of the cases used.

As the new product development process within organisations tends to be episodic and infrequent, the primary data source is in-depth interviews as they are the most efficient way to gather, rich empirical data under these circumstances (Eisenhardt and Graebner, 2007). The interviews were carried out over a six month period. To limit bias and ensure diverse perspectives, the interviews were undertaken with a number of functional specialists at
various levels in the organisation that were involved in the new products process. For each case study, a minimum number of five face-to-face interviews were conducted at each of the company premises, with the exception of one in which one telephone interview was conducted with a participant in a different state. The choice of interviewee was dependent on the nature of the NPD process and the type of functional involvement present, but in all four cases specialists from marketing, R&D and operations functions were included. Participants were determined by the senior manager who consented to the organisations’ involvement in the study. All interviews were conducted by the same interviewer reducing bias. By conducting the interviews at the company premises, some observation could also take place.

Table 4.1: Summary of the four cases analysed

<table>
<thead>
<tr>
<th>Case</th>
<th>Industry</th>
<th>Approximate Number of employees</th>
<th>Approximate Total Annual Revenue ($Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heavy Industrial Manufacturing</td>
<td>40</td>
<td>$15 - $20</td>
</tr>
<tr>
<td>2</td>
<td>Heavy Vehicle Manufacturing</td>
<td>750</td>
<td>$750</td>
</tr>
<tr>
<td>3</td>
<td>Consumer Food and Beverage Manufacturing</td>
<td>5,000</td>
<td>$3,500</td>
</tr>
<tr>
<td>4</td>
<td>Building Products Manufacturing</td>
<td>850</td>
<td>$450</td>
</tr>
</tbody>
</table>

Questions asked were based on the interview protocol (Appendix 1), although this initial protocol was constantly revised and refined throughout the data collection process to better reflect the constructs and propositions developed in the theoretical framework. These questions were mostly taken from scales used within the existing literature, with others questions specific to the theoretical framework added. Each interview began with the question, “if you had the power of “God”, what would you change about NPD in your organisation?” The response to this question provided a focus and direction for the remainder of the interview. All questions were opened-ended and subject to further probing as necessary. Therefore, the order and length of time spent on each question changed according to the responses of the interviewees. As a result, interviews ranged from forty minutes to one and a half hours. The interview protocol was further refined between cases to reflect the
importance or otherwise of the various factors to the development of a climate of trust. All interviews were digitally recorded and then transcribed. Table 4.2 provides a summary of the number of interviews conducted and the functional roles involved.

Table 4.2: Summary of in-depth interviews conducted

<table>
<thead>
<tr>
<th>Case</th>
<th>Position</th>
<th>Length (mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Managing Director (New Products Manager)</td>
<td>58.19</td>
</tr>
<tr>
<td>1</td>
<td>Sales/Marketing</td>
<td>35.5</td>
</tr>
<tr>
<td>1</td>
<td>Chemical Engineer (R&amp;D)</td>
<td>34</td>
</tr>
<tr>
<td>1</td>
<td>Environmental and Technical Superintendent (R&amp;D)</td>
<td>31.42</td>
</tr>
<tr>
<td>1</td>
<td>Engineering Manager (Operations)</td>
<td>49</td>
</tr>
<tr>
<td>1</td>
<td>Finance Director</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>TOTAL NUMBER OF INTERVIEWS FOR CASE 1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>TOTAL LENGTH OF INTERVIEWS FOR CASE 1 (MINS)</td>
<td>255.11</td>
</tr>
<tr>
<td>2</td>
<td>Product Development manager</td>
<td>78.21</td>
</tr>
<tr>
<td>2</td>
<td>Marketing/Sales</td>
<td>52.65</td>
</tr>
<tr>
<td>2</td>
<td>Chief Engineer (R&amp;D)</td>
<td>44.28</td>
</tr>
<tr>
<td>2</td>
<td>Plant Manager (operations)</td>
<td>56.42</td>
</tr>
<tr>
<td>2</td>
<td>Financial Controller</td>
<td>36.05</td>
</tr>
<tr>
<td></td>
<td>TOTAL NUMBER OF INTERVIEWS FOR CASE 2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>TOTAL LENGTH OF INTERVIEWS FOR CASE 2 (MINS)</td>
<td>267.51</td>
</tr>
<tr>
<td>3</td>
<td>Marketing Manager International</td>
<td>83.44</td>
</tr>
<tr>
<td>3</td>
<td>R&amp;D Manager for the Technology Strategy</td>
<td>39.38</td>
</tr>
<tr>
<td>3</td>
<td>General Manager Technology &amp; Innovation (R&amp;D)</td>
<td>48.31</td>
</tr>
<tr>
<td>3</td>
<td>Food Technologist Juice (R&amp;D)</td>
<td>51.34</td>
</tr>
<tr>
<td>3</td>
<td>Special operations manager for specialty cheese.</td>
<td>42.13</td>
</tr>
<tr>
<td></td>
<td>TOTAL NUMBER OF INTERVIEWS FOR CASE 3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>TOTAL LENGTH OF INTERVIEWS FOR CASE 3 (MINS)</td>
<td>264.60</td>
</tr>
<tr>
<td>4</td>
<td>Manager of new products and technology</td>
<td>77.13</td>
</tr>
<tr>
<td>4</td>
<td>National Product Manager (Marketing)</td>
<td>67.16</td>
</tr>
<tr>
<td>4</td>
<td>Senior Research Officer (R&amp;D)</td>
<td>81.21</td>
</tr>
<tr>
<td>4</td>
<td>Technical Officer (R&amp;D)</td>
<td>40.25</td>
</tr>
<tr>
<td>4</td>
<td>National Technical Manager (R&amp;D)</td>
<td>60</td>
</tr>
<tr>
<td>4</td>
<td>Operations Manager</td>
<td>40.44</td>
</tr>
<tr>
<td></td>
<td>TOTAL NUMBER OF INTERVIEWS FOR CASE 4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>TOTAL LENGTH OF INTERVIEWS FOR CASE 4 (MINS)</td>
<td>366.19</td>
</tr>
<tr>
<td></td>
<td>TOTAL NUMBER OF INTERVIEWS CONDUCTED</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>TOTAL LENGTH OF INTERVIEWS</td>
<td>1153.41</td>
</tr>
</tbody>
</table>
NVivo data analysis software was used to code the transcripts. NVivo allowed me to organise the data more efficiently and minimise the chance of human error (Welsh, 2002). Codes were developed based on the theoretical framework and propositions previously mentioned. Each interview transcript was then coded electronically. This allowed me to more accurately and efficiently find all the relevant information for each code (construct or factor) for individual cases or across all the data collected, aiding in both my individual and cross-case analysis. Content analysis was then carried out. The aim of the content analysis was to produce common or contradictory themes or patterns from the data (Perks, Cooper, Jones, 2005).

Analysis was conducted according to the multiple case study analysis method described by Yin, 1984 (Figure 4.3). Firstly, individual cases were analysed in relation to the propositions developed in the theoretical framework. The various organisational factors were also considered as to their affect on faith in management; faith in the NPD process, the level of organisational identification and the overall climate of trust achieved. The interview protocol was refined with each case to reflect the importance or otherwise of particular questions or factors in the development of a climate of trust. Many of the advantages of the multiple case study technique are dependent on replication logic (Yin, 1984; Eisenhardt, 1989). Therefore, the second stage of analysis is cross-case analysis to establish similarities and differences between the cases in order to determine the strongest match between the data and the propositions. Finally the model was reviewed and extended to reflect the findings from the research.
CHAPTER 5:  INDIVIDUAL CASE STUDY RESULTS

5.1 Introduction

Case studies from four Australian manufacturing firms are analysed. They represent a variety of products and industry sectors and are also diverse in the size and scope of their operations. To ensure confidentiality, the names of the businesses are changed to reflect their industries and ensure that the businesses in the analysis are easy to follow. Each case is analysed using a “conceptual” strategy (Miles and Huberman, 1994) where the evidence is considered in regards to its degree of support for, or contradiction of, the theoretical framework developed in Chapter 3 (Figure 3.2). This framework considers organisational trust and its antecedents as important explanatory variables in the development of collaborative behaviours required for NPD success. Therefore, the first priority of the case analysis is to establish the salience of a “climate of trust” between the functional specialists involved in NPD and the potential organisational drivers for the development of such a climate. The second aim of the case study analysis is to examine whether the presence of a climate of trust within NPD actually enhances the collaborative behaviours of the functional specialists’ involved and therefore overall NPD success, or conversely whether its absence has a negative impact on these behaviours.

5.2 Case 1 (INMAN)

5.2.1 Description:

Case 1, referred to as “INMAN”, is a small industrial manufacturing firm located in south east New South Wales employing approximately 40 people with annual revenue of between $15-20 million dollars. It is a division of a larger Australian corporation that is in turn part of an international industrial services group that is listed on the London Stock Exchange with headquarters in the UK and operations in Australia, South Africa, Asia Pacific and the United States. The primary function of INMAN is to process zinc by-products and residues generated both internally (within the group’s galvanizing operations) and externally (from other companies using zinc for coating applications or producing zinc metal products). The facility in the case study produces a range of primary and secondary zinc alloys including
nickel-zinc, aluminium-zinc and aluminium-zinc alloys that are used in the galvanizing industry and die-casting industry and also a range of zinc oxide products used in the production of zinc based chemicals and fertilizers. Their sales are approximately 98 percent industrial, with a very small percentage being sold directly to consumers, and then only if ordered in large quantities. INMAN’s export orientation has grown in recent years and at the time of the interviews was estimated to be approximately 30 percent.

INMAN’s new product development efforts tend to be related to improving processes to either improve the efficiency of their operations, the quality of their existing products or to develop new products for new markets. Due to the specialist nature of the processes used, and as one of only a few secondary base metal processing operations in Australia, it is often difficult for INMAN to source readymade equipment. As a result they are forced to modify existing equipment or develop new equipment or processes in house for the purpose of NPD. Their innovations are sometimes customer driven improvements, though other new product developments have been brought about by economic considerations. For example, in the late 1990s they negotiated to supply 4,000 tonnes a year of die-cast alloy which at that time had never been produced locally, customers being forced to import the product. In taking on this contract INMAN had to develop both the product and the process and are now experts in the field. Other new products have been the result of incorporating new technologies from other fields into their processes to improve existing or develop new products. At the time of the interviews INMAN were negotiating the sale of a new technology for zinc oxide purification. This NPD project uses new technology to create a new to world product that could be used to replace existing products in markets that INMAN have never before been able to enter.

All of the functional specialists involved in NPD are based at the NSW site. Six people were interviewed for this case study. The first is the Managing Director (MD), who came into the company in this role nineteen years ago. During his time in this position he feels that he has been encouraged to look for new opportunities and supported in any entrepreneurial endeavours and has worked on numerous NPD projects. The MD seems to be the champion of most, if not all of the NPD projects in the organisation. The next longest serving interviewee was the Engineering Manager in charge of operations. He has an engineering background and a recent MBA and has been in the role for six years where he has worked on approximately six NPD projects. He appears to have a thorough understanding of most
aspects of the organisation. The Marketing/Sales Manager also comes from an engineering background. He has been with the company for five years, four of which were in an R&D capacity before being given his current role. He believes the marketing functions are shared between himself and the managing director. During his time with the company he has worked on two projects, one in an R&D role, and one in marketing. The Finance Director has also been involved in two major NPD projects in his three years with the business. The Environmental Technical Engineer been in this role for three years and has also worked on two major NPD projects. The Chemical Engineer was brought in specifically for an NPD project and has been in the role for one year. Table 5.1 below shows each interviewees’ position or function, the code that is used to describe them during the gathering of evidence and analysis of the firm, their time with the company and in their current role and the number of NPD projects they have been involved with.

<table>
<thead>
<tr>
<th>Position/function</th>
<th>Name given to function for Analysis</th>
<th>Time in Role (years)</th>
<th>Time With Co. (years)</th>
<th>Number of NPD projects involved in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing Director</td>
<td>MD</td>
<td>19</td>
<td>19</td>
<td>Numerous</td>
</tr>
<tr>
<td>Engineering /Project/ Capital Investment Manager (Operation)</td>
<td>Operations</td>
<td>6</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Marketing/Sales Manager</td>
<td>Marketing</td>
<td>1.5</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Finance Director</td>
<td>Finance</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Environmental/technical Engineer</td>
<td>R&amp;D Tech</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Chemical Engineer</td>
<td>R&amp;D Chem</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

5.2.2 Gathering the evidence

This section discusses the content of all the interviews following the protocol of the interview questions. The findings from the evidence are then used for analysis in Section 5.2.3 to determine the salience of the propositions being examined.

The first interview in this case is with the managing director (MD). He has worked for the company in this position for nearly 20 years and believes that he has had an enormous impact on the firm, its people and its processes.

“You have to drive that culture by ensuring that people do get along well and that starts at selection process, I do not employ the first person because
they are well qualified ...it doesn’t matter how well qualified they are, if I don't think they are going to fit in with the culture of this place, they don't get employed. Once you have got them on board, you have to ensure that they do fit in with the culture and you have to work on that. It is little things and then you have got to give them rewards for having that good culture, so you have to drive that culture when you are in there.”

The influence MD has on the organisation and subsequently NPD and its climate is evident through the rest of the interviews. For example, Marketing makes this suggestion when asked why there is initial trust between individuals.

“Probably because of the type of people we are ...they employed all the same sort of people to a certain degree I suppose.”

Only Operations has a more skeptical view. He has been with the company for the longest, apart from MD and is also considered the 2nd in charge. As such, he has a deeper understanding regarding the benefits of these techniques as management devices.

“I believe (MD) demonstrates an interest in people and their livelihood and how they are feeling and all that but really (MD) has a job to do and needs to get the most out of the people and that’s the way he manipulates them to get that effort out.”

As the interviews progressed, the questions became more specific to NPD. Initially, respondents were asked to gauge their perception of NPD priority within the organisation. In this case, all respondents agree that NPD is a priority in the organisation.

“It has been very high in the last couple of years, well you can say out of the five years I have been here, probably four of those years have had a significant priority.”(Marketing)

“I think it is because with certain markets closing and others opening all the time in this industry that we definitely need to look at other markets all the time and keep ahead of the game.”(R&D Tech)

This priority is evidenced early in the interview with MD who considers himself as the NPD champion in the organisation.
“I was encouraged to continue to develop new opportunities the whole time, even when other divisions were asked to cool it for a while, I was pulled aside and asked to continue to look at the entrepreneurial side of the business and grow the business ... I have got control and I am driving it the best way I know how.”

This is confirmed when asked which function dominates the NPD process, to which he responds:

“I think it is probably me ... Because I want to grow the business, it is a need to grow the business. You can't allow a business to sit still; if it sits still it will die.”

This is supported by all other respondents who agree that rather than a particular function dominating the NPD process, it is MD himself.

“I would say that is upper management, definitely (MD) influences a lot and he is the one that is saying things need to, always focusing on things like that, on new products” (R&D Tech)

MD clearly emerges as pivotal in the NPD process. As such, specific questions were then asked of him about the decision making process, whether it is centralised or whether more autonomy is given to the individuals involved in NPD. MD’s perceptions are quite different to those of the other individuals involved. He reports:

“They had a lot of authority ... I would set guidelines of where we wanted to go but then how they got there was really their business, so a lot of autonomy and by giving them that autonomy, we have come up with some brilliant ideas which we would have never had done if we had structured how they had to do it too tightly.”

Even within this quote it is evident that he maintains rather tight controls with the setting of “weekly guidelines”. Therefore, it is not surprising to find that all other respondents believe that the decision making is centralised – rather than autonomous.

“With regards to product development, it is probably really driven, centralised by (MD).” (Marketing)

When this question is posed to Operations, “So there is quite a bit of centralisation I guess in the decision making when it comes to NPD”, he responds:
“That would be a very nice way of putting it”.

Operations goes on to suggest that the frequency of the meetings is what stifles the autonomy. He believes that longer term goals would increase the autonomy within NPD.

“On a day to day basis, they are working autonomously but probably on a weekly review basis, their priorities are getting changed from the top which is unfortunate in terms of the priorities should be set longer term, this is what I want you to work on and this is where you need to go, to give those people that autonomy.

He further suggests that the fact that MD is the only one who understands the end goals makes it difficult as they can appear to change on a weekly basis according to his whims.

“So people can really be autonomous over that period but at the moment it is like that is what you are working on this week and then we come back the week after ... depending on what the hot priority, will change the priorities to suit his requirements.... So they do a lot of stop, start, jumping around, which is inefficient.”

This theme of a need for a more formalised NPD process with committed resources is repeated regularly in Operations’ responses.

“They give it support in terms of go ahead and look at that, in terms of spend some money ... but not fully supportive in terms of well let’s get the team together and put that together as a project. ... he will have a broad idea of what people are working on and therefore might say to me generally, I want you to run with this, not fully comprehending what I have got on at the time.”

Other individuals are less critical of these factors, though it is clear from their responses that they have a much shorter term outlook than Operations. For example, in relation to the fair allocation of resources, rather than considering the long term benefits of planned resource allocation to NPD, their responses tend to be in relation to resources being available to them personally as required during the NPD process.

“Yes they are fairly allocated. You have to justify if you need that resource but if you need it, because it takes such a high priority, that new product development, then resources are allocated accordingly.” (R&D Tech)
“Resources required in the past couple of years have been very supportive, you know if new components are required, it is done and that is because of the priority put on the innovation of the new product.” (Marketing)

A similar situation is evident in relation to setting collective goals for NPD. Where Operations believes in long term goal setting to allow the NPD team to work more autonomously, most individuals respond from a personal perspective.

“I think we run individual objectives ... and then one of those objectives may be in relation to the new project.” (Marketing)

Interestingly, it is the centralised management style that is viewed as ensuring that the individual goals led to the desired collective result.

“(MD) is very good at controlling and directing how the project is going or getting the information back and driving the project that way.” (Finance)

Rewards and incentives are also considered on the basis of whether they are individual or part of a collective NPD team reward. Though MD takes pride in “rewarding” his people, all respondents agree that rewards and incentives are given on a personal rather than a group or team level. Marketing summarises this in the following statement, explaining the importance of making an incentive “substantial” enough to be “prioritised”.

“If you put it in the scheme of things, we all have strategic objectives and the R&D/New product development of it, maybe one out of 12 other objectives, so as a weighting point of view, I mean those things then go onto to reflect your bonus or whatever it is at the end of the day. It is only worth 1/12 out of the possible, so you have all these other issues and they are all business related but they are all external to the new product, you have to throw your weight behind those. So when I say it is has to be sizeable, substantial enough, if you want it to occur, it has to be substantial enough to be prioritised.” (Marketing).

“I guess we have strategic objectives that are assigned, they are assigned person by person basis, and in there, there are certain parts for new product development I guess but in terms of just rewards for developing new things, I don't think there is anything specific.” (R&D Tech)
When asked whether a team incentive would impact on the behaviour of individuals involved in NPD, the responses again suggest that the management style coupled with the size of the business means that it would not make a difference.

“Not really because the group of people and the way they work here is pretty good, communication is fairly good between people with certain skills or whatever are needed, people go and ask and MD does drive, keeps the focus level there” (Finance)

A further interesting insight is that even though the decision making process is considered to be centralised, a degree of “ownership” of the NPD project is still perceived, particularly by the R&D Tech respondents.

“Yes I guess there is a bit of ownership in anything that you develop; you do get recognition for that”

When asked about changes within NPD strategy, responses varied greatly depending on the length of time with the organisation. As the longest standing employee, and the initiator of many of the firm’s current strategies, MD sees strategic changes as being positive.

“So I think there has been a big change that in the 18 or 19 years I have been with the company we have gone from a tin pot show if you like, although some smart ideas, things evolved and sometimes they worked but to a more structured approach and how you are going to get it.”

Operations has a dissenting view. Having not been involved with the company at the early stages, he still believes there are major improvements to be made to NPD strategy:

“the frustrating part is just the lack of planning and the going over of old grounds and really, not that (MD) takes full responsibility but he takes a major portion of that responsibility for not changing how we do things. Because I think he has seen that we have been quite successful in the past but I don't think he understands the additional benefits we could do by doing it faster and doing it more efficient.”

The respondents with less experience within the company seem to have too short term a view of strategic changes to add any real insight.

“But from what I knew coming into my role and what they had done beforehand then I think strategically it hasn’t changed.” (R&D Chem)
“Well there has been a strong focus on updating of the OH&S to meet a new standard, 1401 standard on site, so in terms of that there has been a push I guess, externally the group as a group, the company, has a new head who has come in and is pushing safety as a big issue.” (R&D Tech)

The changes in top management prompted considerably more discussion as there have been fairly recent changes in top management, with a new CEO being appointed at the National corporation level. Interviewees perceived that this change will have a potentially large impact on NPD at the firm with regards to NPD support, priority and resource allocation. This perception is largely due to the fact that over the last three years, the company has been working on developing new technology to produce a product that would open several new markets to them. This project was recently discontinued by this new regime in top management. This has brought some negativity to the firm, particularly in respect to new product development. Some of MD’s concerns include:

“Whereas the new guy ...has got a single management style and he does not know, he tries to run all businesses using the same management style ... He has a very narrow and I think very successful management style in the types of businesses that he is running.”

When asked if he believes this has impacted on NPD at INMAN, he responds:

“Oh yes, shot it down ... Without him, I think this would have been delayed rather than destroyed.”

Operations shares his concerns over the change in top management: He believes that the National organisation, headed by the new CEO, does not see value in the benefits offered by their firm, particularly in relation to NPD.

“So it was never a formal company set up to create new products, it was company set up to treat a waste product ... so it would make their process a bit more efficient ... I don't believe that our corporate understand our business and I don't believe they want to support it in the future from what has happened in the last year... and as a result I don't think we get the support from them which would allow us to improve our processes.”
Although other respondents are aware that their current project has been stopped, their short term perspective of the business again shows less insight into the potential impact on future NPD projects.

**MD** further believes that the loss of this project will have a negative impact on the NPD climate overall:

> "they would be disappointed at the moment, there would be an element of disappointment that we have come up with a successful process, and it stands up financially, why on earth you would not go ahead with it. So they are scratching their head."

However, although some respondents mention the end of this project, the overall response to how they feel about NPD remains positive.

> “I think with the major projects on hold there has been a bit of disappointment from a lot of people that that hasn’t gone forward ... the minor projects have taken a little bit more focus now because they were sort of put on hold until this project was finished or finalised. So there is still a lot of opportunity for new products, so I would say it is pretty good.” *(R&D Tech)*

Some of the newer members of the firm have even more positive responses when asked about NPD.

> “It's exciting, it is good too, I am very that way anyway, technically based and experimental scientist type of thing, so for me it is exciting.” *(R&D Chem)*

Although these initial questions relating to climate are fairly positive, there are many complexities involved in the definition of climate, as discussed in chapter 3. In order to determine the climate within NPD at INMAN and whether or not it is a trust climate, questions are asked in an effort to gauge the respondents’ perceptions from both a cognitive perspective, such as their faith in the NPD process and organisation, and an affective perspective, such as their organisational identification as well as the level of personal risk they associated with NPD.
Not surprisingly when asked whether he has faith in the NPD process, MD responds that he does. It is interesting to note that all other respondents answer that they too have faith in the process, though perhaps with some reservations.

“Yes, although it is long winded. But I think the success has been proven over the number of years and things that we have done. Although I believe there are a lot of gains that can be had.” (Operations)

“Yes, I think we got there in the end” (Finance)

“Yes” (Marketing)

These responses are a little surprising as the first question asked at each interview is, “if you had the ‘power of God’ what would you change about NPD?”. Several responses to this question related to improvements to the process.

“Possibly the need to have a clearly defined and a better controlled timeline of deliverables, if that makes sense?” (Marketing)

As usual it is Operations who has the most to say in regards to improving the current process. The issues he mentions in this initial response are reiterated throughout his interview.

“The planning phase... in terms of setting the project up, like a proper project with milestones and dates and stuff like that. What tends to happen is that we come up with an idea and that ... really meanders its own course rather than a direct course. Probably due to some resource issues, in terms of not having resources dedicated solely to the development of that product or process. So without those resources and that planning phase, it tends to take longer than I deem being the right time.” (Operations)

These responses suggest that although several individuals can see areas for improvement in the NPD process, it does not mean that they have lost faith in the process that currently exists.

In relation to organisational identification, again MD is convinced that it is high.

“Do they ever, from the shop floor up, don't take our label from us, we are who we are.”

The rest of the responses seem to reflect that organisational identification is positively related to the length of time in the business with only the newest serving employees suggesting that
they identify more with their function than their organisation and Finance, an employee of three years, describing himself as “50/50”.

“That’s a good question, that’s very probing. I think I am a part of the organisation from the fact that I have been here this long, ... if I didn’t think I felt part of the organisation and I wasn’t contributing to it, then I certainly would have just got up and left. So probably an [INMAN] person.” (Operations-10 years)

“Probably I am an [INMAN] person.”(Marketing-5 years)

“More at this stage probably an [INMAN] environmental scientist.” (R&D Tech-5 years)

“Probably a bit 50/50.” (Finance- 3 years)

“I guess, I mean having been here only 12 months it is probably not, I still see myself just a chemical engineer, although I do feel some loyalty to this company definitely after the time I have spent here.” (R&D Chem-1 year)

Perceived risk is also low with all respondents agreeing that they do not feel any personal risk when working on NPD.

“No, there is not a blaming culture. It's a real healthy environment and so if something goes wrong then you kind of take a step back and then okay how are we going to sort this out and then we kind of move on from there. So personal risk, no”(R&D Tech).

Several questions revolve around trust in an effort to assess not only if trust exists, but what type of trust, why it exists and how it can be generated. Initially it is clear that there is a high level of competency based trust that is trust that people are capable of doing their job.

“I guess we trust that everybody is doing everything to the standard that we expect from them.”(R&D Chem).

There is also evidence of experience based trust, which is trust in people based on previous experience.

“past experience I suppose. Developing the relationship over time with that person, getting to know them and how they work and how they are going to contribute and what they contribute.”(R&D Tech)
However, the purpose of this study is to discuss the development of trust at an organisational level rather than an individual one. To this end, questions are asked in relation to initial or “swift” trust between individuals. These foster some interesting answers including the one I mentioned earlier in regards to MDs management style.

“Probably because of the type of people we are, when we were all employed ... they employed all the same sort of people to a certain degree I suppose” (Marketing).

Operations also acknowledges a certain level of initial trust that exists within the firm. 

“Yes, I suppose there is an open level of trust at the start and if that is breached then obviously you would have to look at that a bit more seriously. I don't know how you foster that in the environment, I don't know why there is that level of trust here.”

Further probing for organisational trust leads to questions relating to trust in the quality and quantity of information. For example when asked whether or not they trust that they are given all the information relevant to NPD, all respondents answer that they do. Interestingly, it is Operations, often the more sceptical of the respondents, who suggests that this is due to organisational rather than simply individual factors.

“Because they have had limited exposure to political games and backstabbing from people. Because it is again, a reflection of the size of the business and the people’s constant communication with each other, there is no real avenue for them to go behind peoples back and whinge and start that mistrust type activities.”

This “constant communication” is another aspect heavily influenced by MD and his management style. He proudly spoke in some detail of their communal lunch and morning teas as incorporating both work and social orientations.

“Yes, we have daily meetings, in fact that is why you waited in the foyer, we were just coming out of that, which is the time we have a cup of tea and everything and anything is discussed in there ... providing it is not confidential ... Morning tea we talk work and there is a bit of other stuff goes on but it is basically work and that is the way I have driven it for many years. It goes for 20 minutes, short sharp, what's happening and if there are
no big issues in operations, it might come out in engineering, it might come out in R&D, it might come out in laboratory, I insist that the finance people are down there, so that they hear what is going on, so there is no excuse that I didn’t know that they were going to do this or that. Everybody is on the same plane ... Of lunchtime though, we all sit together and we all have lunch together, all our management staff and it is more social and that’s where you need the thick skin. But the last five minutes we might just touch on work if there is some issue.”

These meetings are also viewed positively by the other respondents who all agree that communication is open.

“Initially when you first get here and the morning tea situation where everybody sits around and discusses work for 15/20 minutes, sometimes it goes for even half an hour, so just to make sure that everything around site is going as it should be and functioning like that, is quite a good atmosphere ... No one is out of bounds, the door is always open all that sort of stuff.”

The one dissenting voice again comes from Operations. However, even though he does not believe that communication is perhaps as open as others have suggested, the reasons he cites are practical rather than political.

“If you ask for something you get it, there is nothing sinister about hiding the information, the fact is we try to keep the meetings practical ... It is more sort of again in that dictator sort of style, well we need to concentrate on this and get an answer back by next Wednesday because we are putting the financial model together.”

The involvement of MD is again evident in relation to conflict handling. As is evident by this response:

“There is no doubt there has been discussion and at times could get a little heated but it has been thrashed out in a group meeting rather than someone being forced to go down a path that they object to. That hasn’t happened. Look I will be honest and say there has been conflict here but not a lot. I went away two years ago and I came back and I thought the place was about to blow up, you could cut the air with a knife and it is never like this at this
place and it was something that had gone in the office and you had people against each other and I just came in very heavy handed and said not on. It's funny, it stopped pretty much straight away ... If you let issues continue to burn away, they will burn a hole in you, whatever you are doing. Just don't let those issues continue.” (MD)

There was much probing during the interviews as to the source of conflict within NPD, including a discussion on inter-functional rivalry and whether or not it exists at INMAN. Both R&D Tech and Operations acknowledge some degree of rivalry. Operations simple states:

“Yes, operations and engineering there is always rivalry.”

R&D Tech offers more insight with:

“if we want resources we have to take them from operations and then obviously they are left short or something like that.”

He goes on to say,

‘I think they understand that the R&D and the new product development is important as well and so they just have to put up with it.”

However, the rest of the interviewees, particularly the managing director, seem to be quite unaware that conflict exists. They do, however, acknowledge that there is sometimes conflict within NPD and that it is most likely to exist between the operations and R&D functions.

“Yes, it is like operational conflict versus engineering in terms of a concept design whatever and there is some conflict of what operation says, you know that is not going to work because of these reasons and there might be a redesign process to take into account their feelings”.

Despite the existence of this rivalry and subsequent conflict, all respondents agreed that MD settles conflicts before they are able to get out of hand. There is also general agreement that things are not taken personally.

“(MD) or I will get involved if necessary to help sort it out . .. you do occasionally in the new product development, people have conflicts, I am just trying to think how to explain, there is no real formal way of handling it
but nothing has really got out of hand, if you know what I mean, nothing has
got personal, it is all kept to a work level.” (Operations)

The final outcome discussed in the interviews is NPD success. The final question asks the
respondents’ perceptions of NPD success within their firm and how they would measure it.
These responses vary: from success being measured by sales;

“I suppose eventually through sales. In measuring success, we can
successfully make it until the cows come home but if it just sits out the back
...”  (Marketing)

To others by intellectual property;

“Well it adds a lot of intellectual property to the company and just general
intelligence in, and that information is always handy for other processes
around site as well. So it is not just strictly about sales.”  (R&D Tech)

However, these responses again show a rather short term view of NPD and have been
coloured by the recent shelving of their latest project.  MD summarises their success thus.

“We can produce a high quality product and financially it stands up, so you
have to say that is successful. Yes we have had few failures and you will
always get those failures because that is the nature of the game but it has
been the success of this company. So without that the company probably
wouldn’t be here.”

5.2.3 Analysis: Does a Climate of Trust Exist at INMAN?

This analysis utilises the evidence offered in the preceding section to determine the salience
of the propositions in relation to INMAN. The analysis is divided according to the
theoretical framework developed in chapter 3 and considers the development of a climate of
thrust through the collective perceptions of the members of the NPD project team in relation to
(i) their faith in management;  (ii) their faith in the NPD process; and (iii) their organisational
identification. The management and process factors believed to influence these perceptions
are examined as is the impact of the climate of trust achieved on the collaborative behaviours
of the individuals involved in NPD. The aim of the analysis is to provide the first test of the
framework developed for this study and to offer any initial support or otherwise to the four
propositions arising from this framework (Table 5.2).
Table 5.2: Propositions from Theoretical Framework developed in Chapter 3.

<table>
<thead>
<tr>
<th>No</th>
<th>Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>A high level of faith in management leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td>P2</td>
<td>A high level of faith in the NPD process leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td>P3</td>
<td>A high level of organisational identification leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td>P4</td>
<td>A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.</td>
</tr>
</tbody>
</table>

5.2.4 Faith in Management at INMAN

*P1: A high level of faith in management leads to a higher climate of trust within NPD*

A contribution of this thesis is the examination of whether faith in management is a valid way to assess the extent to which individuals perceive management actions to reflect fairness and competence in NPD related matters. The theoretical framework presented in chapter 3 suggests the factors most likely to impact on the individuals’ faith in management include support by top management in the form of the priority of NPD, the rewards and incentives offered, fair resource allocation, conflict handling procedures and tolerance for failure (blame placing). Importantly, uncertainty caused by factors referred to in the literature as structural flux, in the form of changes in NPD strategy, personnel and top management is also relevant in this case.

The first organisational factor identified to have an impact on faith in management is the priority given to NPD within INMAN. Although several respondents question the degree of understanding of this priority and subsequent support by top management, there is no doubt that within the firm NPD is considered a priority by all respondents as “important for survival now”. It is reiterated in their discussions on resource allocations. Even though resources are allocated on a project by project basis under the centralised control of MD, most believe that because of “the priority put on the innovation of a new product”, resources are “allocated accordingly”. However, Operations believes that dedicated resources, so that NPD is “put together as a project” would better support the priority given to NPD. The one dissenting
view from *Operations* does not negate the perceived priority of NPD within the business but rather suggests that there could be an improvement to the method of resource allocation to better reflect his.

Faith in management is further reinforced when examining conflict management within NPD. All respondents agree that “*there has been conflict here but not a lot*”. A level of conflict does appear to exist between operations and R&D, specifically in relation to resources. This could explain *Operations* need for the specific allocation of resources for NPD. However, most other respondents were not even aware of it. This is testament to how well conflicts are managed between these functions where “*nothing has really got out of hand ...nothing has got personal, it’s all kept at a work level*”.

A further contributor to faith in management is the acknowledgment that it is not a “*blaming culture*” at INMAN. This factor was mentioned specifically in relation to perceived personal risk, which is a major contributor to the level of trust within the NPD climate.

However, according to the framework, there are other factors believed to impact on faith in management that are not evident at INMAN. Firstly, it is interesting to note that the high priority of NPD is not evidenced through the allocation of rewards and incentives for NPD. All respondents agree that the strategic objectives are assigned on a “*person by person basis*”, rather than an NPD project level. Although some functions have NPD as one of maybe 12 personal objectives, the fact that it only accounts for 1/12 of their potential incentive, it lacks the priority to make a difference to their behaviour. When asked whether there was any incentive to work on NPD, *R&D chem.* simply answers “*no, not really*”. Although the framework suggests that this may reduce faith in management, when asked whether a team incentive would impact on their behaviour within NPD, all respondents agree that it would not make a difference “*because the people and the way they work here is pretty good*”. This suggests that NPD specific rewards and incentives are not particularly relevant to faith in management in this case.

A further factor to potentially reduce faith in management at INMAN is the existence of a centralised decision making structure within the firm generally and also in relation to NPD. *MD* sees himself as the driving force for NPD in the organisation and feels that he was supported in his efforts, until recently, by the National organisation. All respondents agree
that he is the dominating influence on NPD. Although centralised decision making is not usually associated with the development of collaborative behaviours, it may not necessarily be relevant in this case. The relatively small size of the business means that although MD is seen as the central decision maker, he is also viewed as the driver of NPD priority and responsible for the positive aspects of conflict handling and blame placing, again neutralising the impact of his decision making style on faith in management.

The recent change in top management, with a new CEO being appointed at the National corporation level, provides another potentially negative contributor to a trusting climate. Those respondents with a more strategic perspective (MD and Operations) believe that the new regime does not “understand” their business or the importance of NPD to its survival. This is specifically significant at the time of the interviews as a major NPD project had recently been stopped by this manager. MD strongly believes that under the previous management regime, the project would have been “delayed rather than destroyed”. Therefore, it appears that in this case, that structural flux in relation to the changes in top management is a negative and not conducive to the development of a climate of trust.

This examination of the case study evidence in regards to the factors believed to impact on faith in management indicates that there are potentially both positive and negative contributors at INMAN as seen in Table 5.3. In summary, priority for NPD at INMAN is high, with conflicts within NPD well-handled without getting personal or casting blame. There are no specific rewards or incentives for NPD performance or behaviours, though all respondents agree that they are unnecessary, leading to the conclusion that the positive factors in this case (i.e. conflict handling and lack of blame placing) neutralise this issue. The centralised management structure is not in itself completely negative either, with the centralised decision maker (MD) also perceived as being responsible for the positive factors mentioned about, neutralising this issue as well. This leads me to conclude that the only entirely negative factor in relation to faith in management is the changes in top management. This is seen as negative by all respondents in regards to top management support in the form of NPD priority and resource allocation.

These results lead me to conclude that overall faith in management is moderate to high at INMAN. According to P1, high faith in management is believed to have a positive effect and improve the likelihood of the development of a climate of trust. Therefore, what impact does
a moderate degree of faith in management have? I believe that in this case, the effect on the climate of trust is still positive. I will discuss the climate of trust believed to be evident at INMAN in detail in section 5.2.7

**Table 5.3: Faith in Management and its contributing factors at INMAN**

<table>
<thead>
<tr>
<th>Overall Faith in Management</th>
<th>Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing Factors</td>
<td>Positive</td>
</tr>
<tr>
<td>NPD Priority</td>
<td>Perceived as “important to survival now” and supported by MD who is also seen as the driver.</td>
</tr>
<tr>
<td>Fair Resource Allocation</td>
<td>Perceived to be “allocated accordingly” to the priority given to NPD. Operations believes this could be improved with dedicated NPD resources</td>
</tr>
<tr>
<td>Conflict Handling</td>
<td>Perceived to be well managed with nothing getting “out of hand” or “personal”, but always “kept at a work level”.</td>
</tr>
<tr>
<td>Tolerance for Failure</td>
<td>Not perceived as a “blaming culture”</td>
</tr>
<tr>
<td>(Blame Placing)</td>
<td></td>
</tr>
<tr>
<td>Rewards and Incentives</td>
<td>There are no NPD specific rewards or incentives offered. Individual objectives are assigned on a “person by person” basis. All agree that “team” incentives would not impact on their behaviours within NPD</td>
</tr>
<tr>
<td>Changes in Top Management</td>
<td>The new regime of the parent company is perceived to not “understand” their business or the importance of NPD to its survival.</td>
</tr>
</tbody>
</table>
5.2.5 Faith in the NPD Process at INMAN

*P2:* A high level of faith in the NPD process leads to a higher climate of trust within NPD

According to P2, the next element to be considered in relation to the development of a climate of trust is faith in the NPD process at INMAN. According to the framework developed in chapter 3, the most significant elements associated with faith in the NPD process at INMAN are the degree of formalisation of the process, the type of decision making and their commitment to shared goals. Activities such as the amount of change within the NPD process and personnel are also contributing factors to faith in the NPD process at INMAN where both personnel and process have remained stable over many years.

The NPD process was widely discussed with many respondents mentioning it when answering the first question about what they would change in the organisation. The NPD process at INMAN is definitely “more informal than formal”. Several respondents suggest that this is a major issue for NPD at INMAN that can potentially be improved with better “planning ... in terms of setting the project up, like a proper project with milestones and dates”. The perceptions are that a more structured approach would ensure “a better controlled timeline of deliverables”. Without these structures in place, the process is thought to “meander” its course. These perceptions are in line with the conceptual framework that suggests that a more formalised NPD process is more likely to lead to faith in the process overall.

At INMAN, the lack of a formal NPD process means that the individuals involved in NPD rely on *MD* for direction. This obviously suits the centralised decision making previously discussed. Even though *MD* believes “they had a lot of authority”, most other respondents believe that the decisions are “driven”, centrally by *MD*. *Operations* in particular feels quite strongly that by dedicating resources to specific NPD projects INMAN could improve the formality of the project as well as the autonomy of the individuals involved in it.

It is not surprising that within the existing process, the only interviewee with an overall view of the ultimate end goal is *MD*. Although he communicates these goals to the rest of the individuals involved through frequent meetings, it is acknowledged that goals and objectives...
can change on a weekly basis. As such, they can hardly be viewed as “collective” which is yet another negative indicator for faith in the process.

The interesting paradox ensues when, despite these concerns, all respondents report that they do have faith in the process, with all suggesting that they “get there in the end” even though there “are a lot of gains that can be had”. The ultimate success of the new products is the main reason given for their positive attitudes. I believe that another contributing factor is MD himself. As was the case with the analysis on faith in management, I believe the overall size of the business minimises the potentially negative impact of the centralised decision making and lack of autonomy, with MD being seen more as project leader – and a relatively good one.

“(MD) sort of keeps an overall Birdseye view of what’s happening and he is very good at controlling and directing how the project is going or getting the information back and driving the project that way” (Finance)

This issue will be considered further in the following cases to determine whether or not it is a viable explanation for the apparent faith in the process when all factors indicate that faith in the NPD process should be low.

**Table 5.4: Faith in the NPD Process and its contributing factors at INMAN**

<table>
<thead>
<tr>
<th>Overall Faith in the NPD Process</th>
<th>Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formally NPD Process</td>
<td>Considered to be “more informal than formal”. Many respondents believe it can be improved with better “planning”.</td>
</tr>
<tr>
<td>Autonomous decision making within NPD</td>
<td>NPD decisions “driven” centrally by MD</td>
</tr>
<tr>
<td>Commitment to shared or “collective” goals</td>
<td>Only MD has an overall view. Goals and objectives can change on a weekly basis, though they are communicated regularly.</td>
</tr>
<tr>
<td>Contributing Factors</td>
<td>Positive</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Changes to NPD process</td>
<td>There have been no significant changes to the NPD process in recent times, making this factor irrelevant for this case.</td>
</tr>
<tr>
<td>Changes to NPD personnel</td>
<td>There have been no significant changes to NPD personnel in recent times, making this factor irrelevant for this case.</td>
</tr>
</tbody>
</table>

The examination of the evidence in regards to faith in the NPD process at INMAN leads to a significant dilemma in my analysis. As is evident in Table 5.4, most factors believed to impact on faith in the NPD process appear to be negative. However, when specifically asked about their perceived faith in the process, the interviewees’ responses are generally positive. As a result, I conclude that faith in the NPD process at INMAN is also moderate, with the likelihood that there are other factors, not considered here, that are relevant to the level of faith in the process achieved. According to P2, the higher the faith in the NPD process, the higher the likelihood of the development of a climate of trust. I believe that at INMAN the level of faith in the process is closely related to the level of faith in management, largely due to the impact that the MD has on both. Therefore, I believe that the effect on the climate of trust will still be positive.

### 5.2.6 Organisational Identification at INMAN

**P3: A high level of organisational identification leads to a higher climate of trust within NPD**

The third proposition relates to the individuals’ identification with the organisation rather than their functional role. The theoretical development in chapter 3 has shown that the extent of an individual’s identification with an organisation or a group within it has a positive effect on both climates and trust, leading to more open communication and reduced inter-functional conflict. Therefore, the level of the individuals’ organisational identification will also be considered in relation to the development of a climate of trust. The framework proposes that
the climate of trust will be higher within NPD if individuals identify more with the organisation or NPD team than with their functional areas.

All respondents were asked whether they identified more with their function or the organisation. The responses ranged from “probably a bit 50/50” to “probably an (INMAN) person”. The level of identification increases according to the length of time employed, with **R&D Chem**, who has been with INMAN for only one year, being the only respondent who still identifies more with his function. This suggests that the nature of the firm develops this sense of identification. It is interesting to note that even **Operations** who is consistently the most critical respondent still sees himself as an “[INMAN] person”.

Table 5.5: Organisational Identification at INMAN

<table>
<thead>
<tr>
<th>Overall Organisational Identification</th>
<th>Relatively High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Organisational Identification</td>
</tr>
<tr>
<td><strong>MD</strong>—19 yrs with co</td>
<td><em>Feels very strongly that all employees identify with the organisation</em>. “Do they ever, from the shop floor up, don't take our label from us, we are who we are.”</td>
</tr>
<tr>
<td><strong>Operations</strong>—10 yrs with co</td>
<td>Believes that it is the reason he has stayed with the business as long as he has: “if I didn’t think I felt part of the organisation and I wasn’t contributing to it, then I certainly would have just got up and left. So probably an (INMAN) person.”</td>
</tr>
<tr>
<td><strong>Marketing</strong>—5 yrs with co</td>
<td><em>Shows less identification than those who have been in the business longer.</em> “Probably I am an (INMAN) person.” (R&amp;D Tech-5 years)</td>
</tr>
<tr>
<td></td>
<td>Organisational Identification</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>R&amp;D Tech</strong>-5 yrs with co</td>
<td>Also shows less conviction in his organisational identification than longer serving employees. “More at this stage probably an (INMAN) environmental scientist.”</td>
</tr>
<tr>
<td><strong>Finance</strong>-3 yrs with co</td>
<td>Further evidence of declining organisational identification due to the time with the business. “Probably a bit 50/50.” (Finance- 3 years)</td>
</tr>
<tr>
<td><strong>R&amp;D Chem</strong>- 1 yr with co</td>
<td>Although he is the only respondent to feel more functional than organisational identification, he still talks about “loyalty”: “I still see myself just a chemical engineer, although I do feel some loyalty to this company definitely after the time I have spent here.”</td>
</tr>
</tbody>
</table>

The examination of the evidence leads me to believe that organisational identification is relatively high at INMAN and increases in line with the time spent at the organisation. According to P3, this too is a positive indicator for the development of a climate of trust.

### 5.2.7 Is there are Climate of Trust at INMAN?

Based on the preceding analysis and propositions it would appear that following situations exist at INMAN:

1. Faith in management is moderate to high largely due to the influence of the MD. Recent changes in top management have the potential to change this perception.

2. Faith in the process is moderate though the influence of the MD again seems to counter any potentially negative factors.

3. Organisational identification is high and increases with the amount of time spent with the organisation.
The moderate nature of two of the three conceptualised determinants of the development of a climate of trust, suggest that further analysis is required in order to draw a conclusion regarding the climate of trust achieved within NPD at INMAN. The following section will aim to determine this by examining the individuals’ perceptions specifically as they relate to both climate and trust within NPD.

Specific questions relating to both climates and trust within NPD were asked in an attempt to gain an insight into the climate of trust that currently exists at INMAN. As discussed in chapter 3, individuals are not clear on the meaning of “climate” and as such struggle to answer a question specifically asking about the climate within NPD. In this case, many responses are simply “good” or “positive”. Further probing was required to gain some insight into the actual climate that exists at INMAN.

*MD* is the first to suggest that there is a “positive” climate at INMAN. He suggests that it is due to the employees being chosen based on their “fit” with the organisation. This is supported by several respondents who mention “the type of people we are” and “the way they work here” as being conducive to trust and reducing the need for major incentives.

These relationships are developed and encouraged through daily meetings that are both formal, in that “everything and anything is discussed”, and informal, incorporating morning tea and lunch. The morning tea “we talk work ... it goes for 20 minutes, sort sharp, what’s happening ... I insist that the finance people are down there ... Everybody is on the same plane”. This “constant communication” though seen by *Operations* as a hindrance to an efficient and autonomous NPD process, is viewed by all other respondents as providing “a really healthy environment” and a “good atmosphere” where issues are discussed openly between all functions and conflicts resolved before they “get out of hand”. In fact it is *Operations* again who suggests that the frequency of the communications means that there is no real avenue for people to “go behind peoples back and whinge and start mistrust type activities”.

Similar challenges are true when specifically asking about trust. As discussed in chapter 3, the development and measurement of trust is quite complex. The purpose of this study is to examine the development of a climate of trust at an NPD process level. Therefore, it considers the organisational factors that impact on the level of trust within NPD, rather than
the personal or individual factors. Though some responses deal with individual issues such as competency-based and experience-based trust, they also acknowledge that there is “an open level of trust at the start”. This idea of “swift” or “institution-based” trust suggests trust perceptions are based on beliefs and attitudes towards particular groups or functions within the organisation rather than individual merits. These are precisely the attitudes and beliefs that this study deems to be necessary to develop a climate of trust within NPD. However, even the respondents cannot explain why this level of trust exists, further supporting the importance of the examination of trust in this context.

The theoretical development has determined that one component consistently shown to impact on trust is risk. Therefore, in order to further understand the level of trust within NPD, questions are specifically asked in relation to the individuals’ perceived personal risk. In this case there is agreement that there is no personal risk associated with NPD. Any issues associated with mistakes or conflicts within NPD are all viewed as a business risk rather than a personal one. The respondents attribute this to a “healthy environment” where conflicts are resolved quickly with no “blaming” and everything is “kept to a work level”. This further supports the finding that a climate of trust does exist at INMAN and that it is developed through a number of organisational factors.

Overall the “atmosphere”, “environment” and “climate” are all viewed as “positive” and with “an open level of trust at the start”, leading me to conclude that there is a relatively high climate of trust at INMAN.

These finding suggests that although faith in management and faith in the NPD process were both found to be moderate, the positive indicators for each of these (such as the priority given to NPD and conflict handling procedures that ensure that things are not taken personally or lead to blame placing), must outweigh the negative factors such as the lack of formalisation and structure within the process and the centralised goal setting and decision making. Many of these influences are the direct result of the management style of the current MD, suggesting that the climate of trust might not be as positive at INMAN if he were to leave the company.
Table 5.6: Climate of Trust at INMAN

<table>
<thead>
<tr>
<th>Climate of Trust</th>
<th>Relatively High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Propositions</strong></td>
<td></td>
</tr>
<tr>
<td><em>Faith in Management</em></td>
<td>Moderate to High</td>
</tr>
<tr>
<td><em>Faith in the NPD Process</em></td>
<td>Moderate</td>
</tr>
<tr>
<td><em>Organisational Identification</em></td>
<td>High</td>
</tr>
<tr>
<td><strong>Supporting Evidence</strong></td>
<td></td>
</tr>
<tr>
<td>Organisational (“swift”) Trust</td>
<td></td>
</tr>
<tr>
<td>Supporting Evidence Positive</td>
<td>Trust appears to exist independently of individual relationships as evidenced by, “there is an open level of trust at the start”</td>
</tr>
<tr>
<td>Perceived Personal Risk</td>
<td></td>
</tr>
<tr>
<td>Supporting Evidence Negative</td>
<td>There is no perceived risk associated with NPD at INMAN. Mistakes or conflicts are viewed as a business risk not a personal one.</td>
</tr>
</tbody>
</table>

The final stage in the analysis will be to consider whether the development of a climate of trust impacts on individual behaviours and ultimately NPD success.

### 5.2.8 NPD Outcomes at INMAN

*P4: A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.*

A further objective of this study is to expand previous research and shift the focus from “integration” as a desired outcome of cross-functional relationships within the NPD process to “collaboration” and collaborative behaviours such as bi-directional communication, mutual accommodation and functional, as opposed to dysfunctional conflict. Therefore, it is these collaborative behaviours that will be considered as well as overall perceived NPD success.

It has already been determined that there is frequent communication within the firm. Bi-directional refers to information flowing freely between all functions. Although in this case
much of the communication is directed by **MD** in a centralised manner, all respondents agree that it is positive to have “opportunities for communication” and feel that they offer the “*chance and respect to put forward their views*”. These responses suggest that bi-directional communication does exist within NPD at this organisation.

In regards to mutual accommodation, all respondents agreed that the environment is “*pretty cooperative*” and that each function is sensitive to the needs of others.

When considering functional conflict, although all respondents acknowledge that conflict did sometimes occur within NPD, the consensus is that even without a formal conflict handling system, “*nothing has really got out of hand ... nothing has got personal:*”. They further acknowledge that there is both the “*chance and respect to put forward their views*”. This suggests that the individuals involved in NPD perceive that even conflicting views can be communicated and that it will not have personal ramifications for them. This provides evidence that conflict is functional rather than dysfunctional at INMAN.

The existence of the behaviours of bi-directional communication, mutual accommodation and functional conflict lead me to conclude that collaborative behaviours are apparent in this case, supporting P4.

Perceived NPD success differed depending on the function. Although there is a level of disappointment with the closure of their latest project by top management, overall respondents feel that the future of the company depends on NPD and have a positive outlook on the overall success of their NPD as “*without that the company probably wouldn’t be here*”.

Overall it appears that level of collaborative behaviours is relatively high within NPD in this organisation. NPD success is a little more difficult to define, though the perception is certainly positive in regards to their continued ability to develop new products in order to remain viable supporting P4.
### Table 5.7: Collaborative Behaviours at INMAN

<table>
<thead>
<tr>
<th>Collaborative Behaviours</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bi-directional Communication</td>
<td>Perceived to have plenty of “opportunities for communication” and more importantly the “chance and respect to put forward their views”</td>
<td></td>
</tr>
<tr>
<td>Mutual Accommodation</td>
<td>Perceived as a “pretty cooperative” workplace where individuals are sensitive to the needs of others.</td>
<td></td>
</tr>
<tr>
<td>Functional Conflict</td>
<td>There are two components to this issue. Firstly in relation to conflict it is perceived that “nothing has really got out of hand ... nothing has got personal.” Secondly, in regards to behaviours, they feel that they have the “chance and respect to put forward their views”.</td>
<td></td>
</tr>
</tbody>
</table>

### 5.2.9 INMAN Summary

### Table 5.8: Findings from the INMAN analysis

<table>
<thead>
<tr>
<th>Propositions</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1: Level of Faith in Management</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>P2: Level of Faith in the NPD Process</td>
<td>Moderate</td>
</tr>
<tr>
<td>P3: Level of Organisational Identification</td>
<td>Relatively High</td>
</tr>
<tr>
<td>Climate of Trust</td>
<td>Relatively High</td>
</tr>
<tr>
<td>P4: Level of Collaborative Behaviours</td>
<td>Relatively High</td>
</tr>
</tbody>
</table>
It is clear from the evidence presented and the preceding analysis that a climate of trust does exist at INMAN. This is represented in this case despite limited support for some of the propositions. First is a high faith in management. Although recent changes in top management are viewed as potentially negative for NPD, at the time of the interviews this had not impacted on the level of priority given to NPD within the firm which is perceived to be high. This can be largely attributed to the Managing Director who is viewed as the main driver of NPD at the firm. His management style, although quite centralised and potentially a negative, is perceived to be quite positive, particularly in regards to his conflict handling techniques. Conflicts are resolved at a project level, with no blame placing or personal risk. Centralised decision making is not traditionally associated with the development of collaborative behaviours. The exception in this case may be due to the size of the business, being relatively small, so that the managing director can be personally involved with all aspects of the business and as such act more as a project leader in regards to NPD.

The NPD process is considered a central issue at INMAN leading to a finding of only moderate faith in the process overall. This is largely due to the lack of a structured NPD process within the firm. This coupled with the centralised rather than autonomous decision making within the NPD process, means that the individuals involved are not always sure of the goals and objectives of an NPD project. Only the managing director has an overall view of NPD within the business. This is not conducive to collective goal setting and autonomous decision making which are thought to impact on collaborative behaviours. The reason faith in the process is not rated lower is that, despite these issues, all individuals still respond that they do have some level of faith in the process. This suggests that as the managing director is also the “project leader” of NPD at INMAN, the faith they have in his management style has filtered in to their faith in the process he leads.

The size of the organisation may also impact on the level of organisational identification at INMAN. It appears that the longer individuals are associated with the organisation, the more they identify with it, rather than their function, suggesting a strong corporate identity.

In line with the propositions, these perceptions also impact on the behaviours of the individuals involved in NPD. There is a level of respect and cooperation that is evident in their responses in regards to their methods of communication, sensitivity to the needs of others within the team and lack of significant conflict at a functional or NPD level.
Therefore, although there are improvements that can be made to the NPD process at INMAN, this analysis suggests that in line with the suggested propositions, their current practices are well positioned for the development of a climate of trust within NPD and at the firm overall. However, as much of the success centres around the management practices of the current MD, it would be in the company’s interest to improve some of the organisational components found to be negative contributors to the development of a climate of trust in anticipation of changes in management in the future.

The size and structure of INMAN may have a significant impact on the results shown here. Subsequent case studies will endeavour to examine whether this is the case. For example, in larger companies where the MD cannot be personally involved in all aspects of the NPD process will the contributing factors have a larger impact on the level of faith in management and process achieved? Specifically as more layers exist within a companies’ structure, is project leadership a contributing factor and if so is it more or less significant than those identified in the framework? Finally, what will be the impact of organisational identification in larger organisations? Is length of service the only contributor to organisational identification as it appears to be at INMAN?
5.3 Case 2 (HEVIS)

5.3.1 Description:

Case 2, which will henceforth be known as HEVIS, is a medium sized industrial manufacturing firm in the heavy vehicle industry. They are a subsidiary of one of the world’s largest manufacturers of heavy-duty vehicles giving them access to worldwide technical resources and expertise. They employ approximately 750 people, and have annual revenue of approximately $750M. They mainly service the Australian market, but also export to New Zealand and Papua New Guinea. The entire Australian market base is relatively small. This is a double edged sword for HEVIS. On one hand it has allowed them to establish close relationships with all of their customers. On the other hand, being such a small player in the global scene creates challenges particularly in regards to justifying resources from their international parent organisation. The needs of Australian industry are also unique including some of the harshest conditions in the world for heavy duty vehicles. This uniqueness has enabled them to establish a premium position and market leadership in the industry as the only company who designs and manufacture these types of vehicles locally. They hold an approximately 24% share of the Australian market, with their closest competitor holding only around 10%. Their detailed knowledge of both the market requirements and customer demands leads to mainly customised solutions in their new product developments.

HEVIS parent organisation builds commercial vehicles for sale in the US, Canada, Mexico and Australia for export throughout the world. They sell the products in more than 100 countries through an extensive dealer network of nearly 1800 locations. The company also provides customised financial services, information technology and parts related to its principal business. A notable aspect of the firm is its cleanliness. For a manufacturer of heavy industrial vehicles, the offices and plant are kept in pristine condition. Apparently there are regular inspections by top management to control this and it is seen as instilling pride in the workplace.

HEVIS new products manager described their new product development as more product “evolution” than “development” as their core product remains fairly consistent. New products are either a results of a customer need (that is market driven) or external forces such as legislation. Their ability to satisfy their changing customer needs and maintain their leading
position within the market place is largely due to the excellent relationship marketing practices within the firm. They have various formal and informal methods to gain feedback from both their direct customers and the end users of their products. With the addition of a dedicated new product development (NPD) resource in the form of a “New Product Development Manager”, the organisation is aiming to satisfy “best practice” pressures from their US parent organisation. This role is seen as the first step in developing a more formalised planning and development process linking sales and marketing information to the organisation’s planning process.

Five people involved in NPD were interviewed. All these functional specialists were located at the same site, on the same floor, in the same building. All are members of the “product committee”. As mentioned, the role of NPD manager is relatively new to the organisation. The individual in this role has only been in this position for a short time, but has been with the company for many years. He has an engineering background but has mainly worked in a customer service role making him suited for this role of linking their markets to their organisational processes. The Chief Engineer interviewed was probably the dominant player in NPD prior to the addition of the NPD manager’s role, with over twenty years’ experience in the company. The plant manager also has an engineering background and has been with the company for more than ten years. The financial controller reports directly to an operations controller in the United States and feels very responsible for the outcomes at the Australian site. He is considered to be the second in charge and has also been with the company for ten years as well. The only person interviewed with less than ten years in the company was the marketing manager who has only been in his role for approximately eighteen months. Table 5.8 below is a summary of the positions interviewed, the codes used for each of the individuals within the gathering of evidence and analysis, their time with the company and in their current position as well as the number of NPD projects they have been associated with.
Table 5.9: Individuals interviewed for HEVIS case study

<table>
<thead>
<tr>
<th>Position/function</th>
<th>Name given to function for Analysis</th>
<th>Time in Role (years)</th>
<th>Time With Company (years)</th>
<th>Number of NPD projects involved in</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPD Manager</td>
<td>NPD Mgr</td>
<td>1</td>
<td>16</td>
<td>Too many to estimate</td>
</tr>
<tr>
<td>Chief Engineer</td>
<td>R&amp;D</td>
<td>10</td>
<td>21</td>
<td>Numerous small/4 large</td>
</tr>
<tr>
<td>Plant Manager (Operations)</td>
<td>Operations</td>
<td>2.5</td>
<td>11</td>
<td>Numerous small/4 large</td>
</tr>
<tr>
<td>Financial Controller</td>
<td>Finance</td>
<td>3.5</td>
<td>10</td>
<td>Numerous/4 large</td>
</tr>
<tr>
<td>Marketing Manager</td>
<td>Marketing</td>
<td>1.5</td>
<td>1.5</td>
<td>4 small/2 large</td>
</tr>
</tbody>
</table>

5.3.2 Gathering the Evidence

In line with the protocol used in the previous case, each of the interviews will be discussed in this section following the format of the interview questions. The analysis of the findings from the evidence will be given in the following section, 5.3.3 to determine whether a climate of trust exists at HEVIS.

The first question asked is what would you change about NPD in your organisation? In this case the answers vary considerably and relate more specifically to the function that in the INMAN case. For example, R&D wants to see improvements in the design phase or “front end” of the process;

“I would change the front end. We typically design and get all the way through the end and we find out that we haven’t quite got the correct spec that they wanted, there were a few things extra or we design something that really wasn’t required, so therefore the fundamental design spec for the new model wasn’t quite right.”

Finance sees a need for a more formalised process.

“Probably putting more checks and balances into the design area.” (Finance)
Operations on the other hand thinks that having dedicated resources for NPD will improve the process.

“I guess dedicated resources I think is a big one rather than just trying to piece-meal resources half a day here or a days out of the week there rather dedicating those resources.”

Marketing feels there is a need for improvement in obtaining better market information.

“I guess for me if there is anything that could improve the process, would be access to information, market information.”

And the newly appointed NPD Mgr feels that justifying resources is the biggest challenge.

“I mean at the end of the day the Australian market is 12, 13 thousand (units). If we had a 100% market share which is we think impossible ... we’ve only got 13,000 units which is nothing when you come to investing ... it really comes down to how much investment can you justify based on a maximum possible return of 13,000 (units).”

These responses indicate that there is not a single outstanding issue of concern within NPD at this firm. Each person’s major concerns are specific to their functions. Therefore it is necessary to draw out other universal concerns which when coupled with these can be used to determine the overall climate within NPD.

The products manufactured by HEVIS are perceived in the marketplace as being the “premium” products in the Australian market. This perception has led to an enviable leadership position and market share. It is this position that influences the respondents when considering the importance of NPD to the organisation. R&D considers NPD to be crucial in maintaining their perception of being a premium product manufacturer.

“Extremely important because we’re the premium (unit) ... we’re a custom (unit) builder and we have to be moving the whole time.”

Marketing sees NPD as essential in maintaining their competitive advantage and market share leadership position.

“I think it is critical, I think without any sort of new product development effort then we are left standing still. Our competitors in this market, (HEVIS) compete against global R&D budgets ... and our competitors are
not restricted by new product development initiatives and we need to be right up to date with innovative thinking and launching new products and keeping ahead of the market, not just the follow of the leader.”

Finance also agrees that the importance of NPD is “huge” while Operations sees it is “critical” in an age of omission trading, etc. The importance placed on NPD as a means of protecting the company’s position within the market place has led to positive changes being made in an attempt to improve the NPD process.

One of the most significant issues associated with this firm relates to changes in personnel. Their current managing director (MD) has only been in the role for a couple of years. His predecessor had been there since the company began its operations in Australia. Almost all respondents have worked under both MDs so can offer considerable insight into the differences between the two and their impact on NPD within the organisation. The new MD is generally perceived as being more “collaborative” than his predecessor.

“Our former managing director... had a very good flare for the sales and a feel for the customer base and good relationships ... (the current MD) I guess has got a different approach you know ... he wants to make sure decisions are made collaboratively and there is a process for trying to understand the market better and having buy-in from all parties and so there’s more of a democratic approach to how we should identify opportunities ... so that we’re all on the same page. I think ultimately that’s where he’s trying to model or get essentially me to model how we go about things” (NPD Mgr)

R&D agrees that the previous MD had a more centralised approach to management, gathering all the information himself and then guiding all the NPD decisions, not unlike the MD at INMAN. The new MD relies much more on his subordinates supplying him with the information that is required in order to make an informed, collaborative decision at the product committee level.

“Previously we had a very, what would you call him, dominating managing director who had a good eye for what we needed next and did a lot of travelling ... he’d come back and basically raise the issue discuss it in the product committee and launch it...So that’s now gone to (current MD)
wanting a system in place where he comes along to a meeting and gets all
the information fed to him ... enough for him to make a decision or the group
to make a decision”

This change in management style leads to not only changes in personnel, but changes in the
behaviour of the individuals involved in NPD.

and we go forward and that’s now encumbered on (NPD Mgr) and the rest
of us to make sure we’ve collected enough data from the field to be able to
make the right decision on whether we’re going to do it or not.”

**Operations** feels particularly positive about the more inclusive nature of the new MD.

“I think operations is having more of a voice ... Previously I think it was
almost a secondary thought of the process of how we’ll actually build the
product, whereas now we’re involved and speaking up and engineering are
listening more ... And probably if I could add there probably improved
relations now then perhaps with other previous managers”

As is evident from these descriptions there are both positive and negative associations made
in regards to the new MD. While his management style is certainly seen as a more
democratic approach, requiring more input from the various functions involved in NPD, he is
also seen as being less in touch with the market himself and therefore more reliant on the
information he is receiving from his team. This is nicely defined by **NPD Mgr**.

“No one likes being told this is what we’re doing I don’t care what you
think. Now everyone wants to have an input and yet some days when you got
the opportunity to have an input you think ... it was just easier when we were
told.”

The other significant change to personnel is the introduction of the role of NPD manager
which came about as a result of the new MDs more consultative approach to NPD. As
discussed earlier, the individual in this role has a long history with the company in both
engineering and sales so seems ideally placed in the role of coordinating the NPD efforts
within the company. His earlier quote suggests that he sees his role as a way to get better
“buy-in” from all parties involved in NPD to make the process from idea to market more
efficient. This purpose of this role is supported by **R&D** who sees it as a method of
addressing one of his key concerns with NPD in the organisation.
“I would change the front end. We typically design and get all the way through the end and we find out that we haven’t quite got the correct spec that they wanted ... (NPD Mgr)’s brand new to it and the reason (NPD Mgr)’s put into this job is to try to help rectify that ... We haven’t seen the fruits of it yet, because he’s only been at it for 12 months.”

There are several other perceived benefits stemming from the addition of this role to NPD in the organisation. One is to improve the perception as to the priority of NPD within the firm.

“It’s given R&D the separate focus that it needs rather than being a branch of engineering.” (Finance)

“Oh yes. The whole company knows that this is our bread and butter.” (R&D)

“I would say at this point in the company it is definitely a priority.” (Operation)

**Marketing** offers further insight as to the impact of the NPD manager on the perceived priority.

“I think it is more than lip service, the fact that we actually have a product development manager as part of the senior management team here too, who sits on our senior management ... I think there is a demonstration that it is serious about new product development.”

As well as ensuring the priority given to NPD within the company, this role is also viewed as the champion of NPD for the company on a more global scene, with links that go beyond their internal relationships to include a “voice” in the ear of top management in the US.

“Being a very small player in Australia, being a small piece of the pie, we’re trying to get in there via (NPD Mgr) mainly and making sure that the ... configuration and the size meets our requirements as much as it does some of the bigger markets. That’s always a challenge to make sure you have a voice in there.” (Operations)

One of the ways that the NPD manager will try to improve the efficiency of NPD and address some of the concerns of the other functions is to formalise their NPD process. The more formalised system is relatively new to the organisation and is being viewed with some
caution. **R&D** sees that it will potentially address his concern of producing the right product the first time.

“It should be a much cleaner build than what we used to do in our previous life. *In other words a lot more thought has gone into that first prototype and a lot more thought probably gone into all the other options that will go into that model than previously. Previously we would have just got probably the fundamentals done and then we’d run along behind that as customers wanted it. We’re hoping to get a lot more done on that ... first design integration.”* (R&D)

However, there is also a level of caution involved even from **R&D** who is concerned with “over-formalising” the system so that, rather than gaining efficiency, the process actually becomes restrictive.

“It’s about to get more formalised with (NPD Mgr) for a larger project and we’re trying desperately to keep it less formal for the smaller projects ... if say a project is going to take us less than 10 hours we would basically let the engineer run with that one.” (R&D)

The main NPD concern for **Finance** is the need for more “checks and balances” in the system, yet he too supports a level of caution in how formalised the process should become.

“But the trouble is you’re constantly battling between being flexible and quick to market which is why we do very well and then doing all this good stuff to put the controls in to make sure ... you go to market with the best possible products.”

**NPD Mgr** is aware of all these concerns and acknowledges the challenges that lay ahead in trying to address these to create the optimum process for the firm.

“Yeah, more formalised and ... would I say we’re there yet?... and the answer is no because when you’ve been doing something for 30 years or more and now there’s someone trying to formalise what is not necessarily been formalised”

The nature of the new MD and the creation of the NPD manager’s role shows a tendency to decentralise the decision making within NPD. **R&D** who had primary responsibility for NPD prior to the recruitment of the NPD manager has confidence in the decision making process at
least within the R&D area. He concedes that many decision can be made by individuals or himself within R&D and that most others can certainly be made at the product committee level, which is inherently the NPD team.

“Engineering can make almost ... All the way through to anything that’s aesthetic to the (vehicle) ...That has to go all the way to the product committee.”

The financial officer supports this view of the decision making process.

“It depends on how big the issue is. If it’s a significant entry in terms of concept or design it will generally go higher to at least the Chief Engineer (R&D) and often the Managing Director. If it’s just a, you know, a simple behind the scenes means of attaching two bits together in terms of production then it won’t go anywhere near that high.... I think they feel comfortable with what they should be calling themselves as opposed to handing it up the line.”

Marketing also agrees that decision making is kept within the bounds of at least the product committee.

“I guess it depends, generally speaking though it goes up to the product committee for approval ...predominately it is a consultative process which the members of the committee come together and make a decision ... I think there is a good degree of empowerment amongst the members of the group to make decisions around new product development....it has a fair bit of power in terms of decision making and plotting the course of the future.”

The newness of his role has led to some ambiguity as to the actual amount of autonomy the NPD manager has. At this stage, he too sees the Chief Engineer as having the most decision making autonomy while acknowledging that there is potential for more autonomy within his role down the track.

“(R&D) will make several decisions potentially a day that affect the development of the product. ... within his role as the Chief Engineer he certainly has a level of authority to just look after the product. I’m kind of sort of running a parallel to his role in that it’s probably more now that I would influence him to exercise that authority.”
The newness of the role of NPD manager means that functions of it are still evolving, including the authority associated with it.

“That’s pretty much just because the role is new and it’s not probably as clear. A lot of people here wonder what authority my role has, like is it a sort of more of a planning type role but because of my nature and my background I’m probably trying to wrestle more authority than I’m probably supposed to have. So no I wouldn’t categorically say I feel I have any autonomy to make decisions, but I certainly feel as though I have a lot of influence on decisions in general”

It evident from these responses that even though the introduction of the new role of NPD manager means changes in the NPD process, most respondents feel that the Product Committee is relatively autonomous in its decision making capabilities already.

The Product Committee itself has also been heavily influenced by the introduction of the new NPD manager. Although cross-functional committees were previously used in regards to NPD, he has pared back the committee to include only the functional heads that are, in turn, responsible for ensuring they have gathered the relevant information from the rest of their team to take to the meeting. This is seen as making the committee more efficient.

“None the less the committee got to a point where you know things were sitting there for months…. it bounced around for bloody 12 months … so one of the things I did is I somewhat reluctantly assumed control of the product committee as far as chairing and I pealed it back and said right no one is coming to this meeting except the relevant department heads. … what I did is... make it the responsibility of the department head to gain any feedback ... and bring it in as one voice not 50 voices.” (NPD Mgr)

NPD Mgr has also streamlined the processes within the committee. Acting as a “gate keeper” of the information that is presented at the committee, he ensures that only relevant issues that decisions can be made on are brought to the table.

“We meet fortnightly and any proposal big or small or otherwise comes in via my desk and I screen them and push them back. Just because you wrote it on a piece of paper doesn’t mean to say it’s viable ... if you can’t sell it to me that it’s something that we should be doing, or if I think your proposal
has got holes in it left, right and centre I'll just keep pushing it back on you and go make you do some more homework and answer some more questions. Because the whole idea is when I get into that room I want to be in that position where a decision can be made not just another hundred questions asked.”

This has been seen as an improvement to the overall NPD process as supported by Marketing.

“I have noticed one. When I arrived the product committee was a very unwieldy group of people from all parts of the business, the size of the team was greater than 30, so it became a very difficult minutes driven, inflexible slow to react way of driving product development in the business. That was then changed to become a smaller group of people who had in their own areas of responsibility, cross functioning scope and that group now is much quicker to make decisions around products or even to convene meetings, together and talk. You don't have to wait and plan months and months ahead…. A very positive change.”

These responses suggest that even though NPD Mgr is uncertain as to the actual autonomy of decision making within his role, his position as head of the product committee ensures his influence on the decision making for NPD overall.

An advantage of the more formal NPD process and streamlined product committee is that the process is now considered to be more objective and “goal driven” with the goals being determined collectively by the product committee.

“Well I think the new structure is very much goal driven, is very much objective; there’s a set of criteria that must be ticked off, check lists that must be completed and so that is much more goal driven. Whereas before it was very much subjective when do we move on to the next stage” (Operations)

“we rely on the product committee to manage and lead, those goals are shared.” (Marketing)

Although goals and objectives are considered “collective”, rewards and incentives are still seen as individual. For example, one of the more prestigious awards available within the
company is only available to engineers. R&D takes great pride in describing the “chairman’s award” that is a global award for engineering excellence.

“We won the chairman’s award a couple of times and we’ve come second a couple of times … we (a) little division in Australia has won so that gets a bit of a buzz. So every year we get to submit an invention and we get to submit a project and that’s typically a new model.”

He did concede however that these were “engineering” awards and were not open to the NPD team as a whole to enter. Finance also mentioned these awards, but they are definitely considered “engineering” awards not NPD ones.

In regards to internal organisational incentives and rewards, these too are set at an individual level. As is evident by the rewards described below, individuals can be rewarded for particular behaviours. However, none of these have related to NPD to date.

“what about … the $500 bonus they gave you last Christmas because we had a fantastic … Christmas. What about the … gift vouchers they give you for not having a sick day, what about the benefits you’ve had with clients … so I would say over my opinion the company generally has the concerns of its people at heart.”

The same can be said for internal organisational incentives. Whereas NPD Mgr has key performance indicators (KPIs) based around NPD, R&D, Operations and Marketing do not. They all concede that there are no collective KPI’s for NPD. When asked whether they believed that this type of incentive would have any impact on the behaviours involved, most believed that it was not necessary as the people involved recognised the importance of NPD to the business and were unlikely to need incentives to be involved.

“Haven’t thought about it much but as a first pass answer I don’t think so. I can’t see it. I don’t see … anyone obstructing it or not contributing to it enough to think how can I incentivise it.”(NPD Mgr)

Although many of the aspects of the product committee are viewed as positive, it is also evident that a certain level of inter-functional conflict exists within the committee.

“sales … seems to think production have hindered their progress in selling (units) and also engineering won’t help. Engineering think that production
are useless because they won’t put the passing on properly that they’ve obviously designed perfectly. And production hate engineering and sales because engineering fully don’t design the bars right. And sales won’t offer too many options for them to build.” (NPD Mgr)

**R&D** agrees and suggests that the engineers are actually caught in the middle. The “price book” referred to hear is a type of catalogue of all their existing products.

> “Production would love to be making every (unit) the same … Sales and marketing want everything that’s not in that price book usually … sometimes I don’t think they even look in the price book … and engineering is in the middle, trying to balance it.”

**Finance** also sees these conflicts.

> “the most common would be conflict between production vs. engineering or production vs. sales and in simple terms that means I know this is what the customer wants and I … know this is what engineering want to build but I’ve got to build it down in the factory and I’m under all sorts of other restrictions to keep my line.”

Despite the overwhelming evidence that inter-functional conflict exists within the production committee at HEVIS, there is also consensus that the conflict is usually well managed at the committee level and rarely needs any further intervention.

> “Usually it’s sorted out well before it gets... it would never get to (MD) it would get to me or it would get to (Operations) or (Marketing) and then we would sort it out at that level.” (R&D)

Even **Operations**, who is often described as a central player in the conflict, agrees that it is well managed.

> “Well there’s always robust discussion but at this point ... I’ve never really been involved where we haven’t been able to come to some sort of compromise or negotiation. It’s usually worked out within the team dynamic itself.”

**Finance** also agrees, commenting that only rarely does a conflict need to be resolved by the MD.
“If there’s a conflict the team will normally negotiate and come to an agreement, in the highly unlikely event that that wouldn’t happen the managing director will make the call.” (Finance)

The new NPD manager’s role has the potential to take more responsibility for conflict handling in the future. Again, the newness of his role means that there is still some ambiguity as to the responsibilities that are expected of him.

“That’s where there is still a lot of learning to be done on all sides of where that role fits into it and am I just a chair who’s facilitating the conversation or do I start to assume some of that authority thing and say righto, thanks for your input but this is what I’m taking to management”

Blame placing is another important organisational factor discussed. In this case, it is interesting to note that most respondents agree that there is some level of blame placing. However it is not seen as particularly negative but more as a means of identifying the problem so that improvements can be made. R&D concedes that even after an individual has been identified, that the “engineers” as a whole will take the blame rather than incriminate an individual.

“I would say yes engineering did make an error and this is what we’re doing in the future to prevent it and this is what changes we’ve made ...the person needs to know he’s made a mistake and usually as soon as you tell them that, that’s enough; you don’t have to go and sort of put them on show like that.” (R&D)

Finance agrees that though people are held responsible for their actions to a degree, the company does not make too big an issue of it so as to minimise its effect on the individual.

“it’s more finding the root cause of the problem, which is a polite way of saying blame placing ...we do go back and find who or what is responsible for whatever happened. Now that doesn’t mean we run around and point the finger and so on but you know people cop that on the chin and move on I guess.” (Finance)

“So individually sure ... like any place you get your barbs and individuals but no I think as a company in general just get on with it.” (NPD Mgr)

Marketing, as the newest member of the product committee offers this description.
“I didn’t see a lot of blame; I saw more of a constructive way of looking at that to see what we can do better for the next time and the sorts of questions or considerations that you should make when you do your new product development.”

Despite this agreement that “blame placing” does exist to an extent at least to the degree of finding the root cause of problems or issues, it is not perceived as having a negative effect on individuals’ behaviours in terms of making them risk averse.

“If there’s a mistake made it’s you know a mistake is a mistake and they wouldn’t of sort of set out to say I’m definitely not going to do this because although it’s great for the company there’s a high chance I’m going to stuff something up. They wouldn’t do that.” (Finance)

Despite evidence that conflict exits within the product committee and even that blame placing is evident, this does not seem to extend to inter-functional rivalry. When asked specifically about rivalry, the responses are fairly consistent.

“Only in so far as ... I mentioned before ... but I wouldn’t say there’s rivalry in terms of somebody’s trying to get ahead of somebody else; I think there is an element of people looking after their own departments.” (Finance)

“Generally, you know there’s always push back on various departments for different things but I don’t think there’s much rivalry.” (Operations)

“I might be naive but I really don’t.” (Marketing)

The non-competitive nature of the production committee is further supported by the response to which function dominates NPD. Each function sees this differently with engineering describing it as market driven, Finance and Operations believing it is engineering and Marketing suggesting it is operations. These responses support the idea that no one function actually dominates the NPD process and that it is well balanced between all the functional specialists involved. Is this conducive to the development of a climate of trust?

The initial questions regarding their perceptions on the climate within NPD at the firm are mixed. Both Finance and Marketing have a very customer focused approach and have positive perceptions about NPD within the firm.
“Yeah definitely extremely positive. It’s everybody here knows that’s our bread and butter because we generally come up with better things for the Australian market far quicker than others do.” (Finance)

“Yes it is very constructive. I think this company’s hierarchy has been built on doing things differently from its competitors and responding very quickly to the needs of its market. So it is almost a cultural trait that it has to continually to reassess its products ... we only build to a customer’s specification and that specification is different and they are all unique, they are all requiring a different set of problem solving and so I think it is inherent within (HEVIS) Australia that the new product process is really part of the philosophy of doing work here.” (Marketing)

Other respondents describe a degree of “frustration” with NPD, though for varying reasons. NPD Mgr again notes the allocation of resources (particularly from the US) as a “frustration” when discussing NPD climate. The uncertainty associated with his new position is a further source of frustration as he struggles to identify his role within NPD.

“(I) enjoy the idea of what it can be, what it could be and if I lived in my perfect world of having all the funding I needed I think it would be awesome. ... it’s frustrating. At the end of the day it’s a kind of job that I didn’t know this until I sat in the job. Most jobs you get a daily yard stick or measure of whether you’re doing a good job ... when your job is all about planning five years out and your ability to get the five years out is depended upon getting funding available ... It’s a long time before you kick your goal or whether you ever see that goal materialised and I think that is for me personally it’s been frustrating. And I never even ... vaguely forecast it before I went into it.”

R&D also perceives a level of “frustration” stemming from the addition of the NPD manager’s position and the changes associated with it that will potentially slow down the NPD process.

“I think there’s a fair bit of anxiety about the fact that this whole new system is slowing things down. So in other words we’ve got to do a lot more checks at various goal set points on the way. So in other words you shouldn’t progress any further beyond a certain point. And what can be happening is
the engineer wants to go to the next phase and he’s been held up with information from another department.”

Although the frustrations mentioned here are typical of a stage/gate approach, this frustration may also be due to the fact that NPD have previously been R&D driven. **R&D** goes on to say,

“Before he would just keep going and he would regard it as it came along but now he’s saying stop... So there would be not only the engineer gets to the toll gate, the whole lot should get to that toll gate together and they should all have activities they should have done before it goes to next level. So the engineers probably more likely because he’s the one that has to get his work at an earlier point other than the tooling design. And he’s the one that’s probably in front, and he gets to the toll gate he’s got to wait for everyone else a bit frustrating.”

These generic feelings are broken into more specific components of climate in order to gain more insight into the overall perceptions relating to NPD. Interestingly, **NPD Mgr**, despite his frustration with the allocation of resources and long term perspective of his role, still shows faith in the overall NPD process.

“Do I have faith, yeah. Well yeah. Yeah like I say I think by hook or by crook we always get to where we ... Our outcome is generally the right outcome”

**R&D** also sees beyond his frustration with the new system to remain positive, so when asked whether he has faith in the process he too responds:

“Yep it’s going to have some rocky road but yes I do.”

**Finance** actually sees the new structure as being positive as well.

“Yes I do because it’s proven itself over several years but I’ll be much more comfortable with it when we continue to implement more checks and balances and so on.”

Both **Marketing** and **Operations** are more cautious in their perceptions as to whether they have complete faith in the process. **Marketing** is positive about the more objective nature of the new process.
“It is not bad, there is a process within there, I think it can be improved and we are looking overseas for how they have done it in other ... parts of the world. But no, I think it is a fairly robust process ... decisions are made around fact and data, never made around gut feel or anecdotal, you know strong market information is presented.” (Marketing)

Operations is the least positive and is not happy to speculate about his faith in the process until it has been proven successful or otherwise.

“Yeah that’s not proven yet so I wouldn’t say there’s 100% faith in the process. I think there’s a level of understanding that it appears to be a good process but until we’ve actually completed a few projects I think that total faith in the process needs to be earned.”

It is interesting to note that even though the process is in a stage of evolution and has not yet been proven to be successful, most respondents remain positive as to its potential. So, as was the case with INMAN, it seems that most individuals involved in NPD have faith in the continued improvement of the NPD process within the firm, even though there are quite opposing views on how it should be improved.

The other components of climate that are explored include whether they identify themselves more with their function or with the organisation. It is interesting to note that most people respond in relation to how the “engineers” see themselves.

“Look I think engineering is probably more siloed than some other areas ... That doesn’t necessarily apply ... to senior management but as a group, there may be a tendency in engineering to you know do their bit but not necessarily think about the next person along the line” (Finance)

“At the moment I would say that they’re they have a sense of more of... they have a sense of what they’re doing is stretches outside of their department but at the moment they’re probably I would say focused more on being engineers at this point.” (Operations)

Again, this is probably due to the fact that the engineers were historically responsible for NPD. The change in process is seen to have had a positive effect on their functional identification.
“that situation is dramatically improving in the last year or so. It’s definitely heading the right way but historically and we have still got some of the old thing to get rid of there is probably more (functional) mentality in engineering.” (Finance)

This is supported by R&D, who of course is the chief engineer. He has quite a different view suggesting strong organisational identification among his engineers.

“I think of myself as a [HEVIS] engineer ... I think there’s definitely a [HEVIS] sort of stamped into you it seems to be in your blood, that’s why people stay here.” (R&D)

NPD Mgr offers a reasonable summation of these thoughts.

“we do all understand that we’re here for the benefit of the company. Which does not mean at any stage the pressures of the day don’t make that a little hard for you to see through the fog sometimes and you get a bit stuck on your own agendas”

It was unclear from these responses whether organisational identification was high or not at HEVIS, so further probing was required.

Questions were also asked referring to loyalty and motivation. What emerges from these is that there is a strong sense of pride in the company and its products. When R&D is asked what he thinks motivates people’s behaviours, his response is that it is having the premium product and the leading position in the market place.

“Market share leadership I think. Even though we don’t aim for that we want to be the premium (unit). A lot of people look at how well we’re going; for us to be the premium (unit) and to be the market share leaders ...Normally you would not have the premium product being the market share leader. I think that drives a lot of people’s passion.”

Finance also believes that people feel a strong affiliation with the product, particularly the brand.

“No they are immensely proud of the badge on the product ...it is like a Harley Davidson or a Ferrari or something like that, it’s got a following.” (Finance)
Probably the most telling in regards to organisational identification comes from Operations who suggests that people are proud to tell their friends and family that they work for HEVIS.

“Well I think the product always is very high, people take a lot of pride in the product ... The brand ... is known through all their families and friends. And they take great pride to say that they work in HEVIS”

He is also the first to comment on the length of time people stay with the business. As I found at INMAN, it would seem that the longer a person is with an organisation the more likely they are to identify with that organisation.

“You know I think it’s the people as well, I’ve lost count of the number of times when you know attending 10, 15, 20, 25 year service awards and people say it’s the people that I enjoy the most and working with those people is why I come every day. So that would be the common thread I hear in my service presentations.”

These strong feelings towards the company and its product are bound to have a positive impact on the NPD climate.

The next questions on climate related to perceived personal risk. As discussed earlier, there is an element of, not “blame placing”, but drilling down to identify the root cause of issues. Based on this evidence, it is interesting to note the respondents’ perceptions on personal risk. R&D clearly perceives that risks are personal rather than NPD team based.

“No I think there’s personal risk as well because you still have ... the engineers and the manufacturing engineers and industrial engineers still having to make their designs ... there are certain aspects of what they’re doing they gets checked but it still comes down to a personal accuracy approach. So yes I think there is ... Yeah probably more so than the team.”

The financial controller believes that the risks are more of a team risk, perhaps being focused down to a functional level.

“In general I would probably say team but probably not to the same extent because if the risk is if something goes wrong that that wrong will always be tracked back to one particular discipline”.

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Most interestingly, several respondents consider the fact that individuals are responsible for the actions as a positive thing as along with risk comes the possibility of personal benefits.

“\textit{I don’t know I personally don’t … probably not downside risk but there’s more upside risk and more upside opportunity if they do well rather than down side risk of failure.}” (Operations)

\textbf{R\&D} when asked about personal gains agreed with this.

\textit{“Oh emotionally and pride satisfaction yes.”}

Up to this point the cognitive and affective components of the climate have been considered, but further probing is still required in order to determine whether or not the climate is a trusting one. When initially asked whether they trusted each other, most simply respond with “yes”. For the purpose of this study it is necessary to look beyond their personal trust issues to see if any organisational factors contribute to the trust that is evident within NPD. Therefore, it is interesting to note that when asked “why” they trusted other members of the committee, most respondents did not refer to individual, but organisational factors. \textbf{R\&D} and \textbf{Marketing} suggest that “collaborative” decision making and collective “goals” are important in developing trust.

“\textit{I think yes we all trust each other and I think there’s a collaborative decision that’s made and then we stick to it.”} (R\&D)

“\textit{Because there’s a … genuine understanding and belief that we all know what’s made this product successful in the past and we all believe that fundamentally that’s what will make it successful in the future. And so everybody’s going to work towards the best overall goal.”} (Finance)

\textbf{Marketing} believes that pride in the product and its position also contributes to trust.

“\textit{Yes I do. I haven’t seen any time where that has actually ever been challenged. I think everyone has their heart in the right place when it comes to product development and like I said before, the (HEVIS) Australia business became the market leader because of the way it pursued product development and the way it was the first to market, to develop unique products for customers applications and I think that is very strongly ingrained in this companies DNA.”} (Marketing)
**NPD Mgr**, by responding that he has never even questioned trust, actually suggests that a level of “institution-based” or “swift” trust probably already exists within HEVIS.

“not something that I really sort of found myself questioning in the place to know to consider that.” (NPD Mgr)

These responses led nicely into discussions on the desired behavioural outcomes for NPD success, being “collaborative” behaviours. **Operations** simply states that the group is “effective” and “collaborative”.

“Yeah I do I think the group we have at the moment is an effective group as we’ve had since I’ve been around anyway, yeah. And it’s much more collaborative...”(Operations)

**Marketing** offers a little more insight into why the team is considered to be collaborative. The idea of “supporting one another” suggests that mutual accommodation exits within NPD.

“I think it is probably one of the better functioning teams that I have been in. It is very a-political and I think there is a strong sense of supporting one another and not seeing people fall.” (Marketing)

**Finance** also talks about functions “assisting” one another to build “positive relationships”.

“By one department assisting another with something ... that they need to get done, so for example, you know if somebody in engineering or sales needs an urgent costing done they’ll come to our area and if we get it done then it helps build a positive relationship, and that could happen it could be going in any direction.” (Finance)

**NPD Mgr** also sees his new role as contributing to the mutual accommodation of the product committee by making sure that all functional issues are understood and dealt with at the committee level.

“I would see my role in being outside of a meeting process, someone who’s scouting around all the different parts of the company to help present the issues of the other department or understand the issues of that department so I can communicate it within. I think that’s helped a lot ... by having someone kind of independent ... that’s the way (MD) wanted this job.... the only reason why I report the managing director directly instead of say the Chief Engineer here is because he didn’t want this role to be ...biased in any way
he wanted to be an independent planner representing the best interest of the entire company.”

Other collaborative behaviours considered to be a positive outcome of a trusting climate include bi-directional communication and functional (as opposed to dysfunctional) conflict. In regards to communication, the product committee formally meets fortnightly, but communication can be even more frequent than this with many respondents agreeing that considerable communication takes place outside of the actual product committee.

“The way the political system works and a lot of the time by the time it gets to that meeting it’s been discussed heavily outside of that meeting.” (NPD Mgr)

“There has to be if you want to get things happening in it, so that people come to the meeting and hear things that don’t surprise them. Then we use that meeting basically as a rubber stamping exercise.” (Marketing)

Marketing goes on to suggest that it is actually the communication outside of the committee that is most important.

“I think the informal network is stronger and more powerful than the actual formal meetings that we go to and it has to be, otherwise it becomes pretty dysfunctional.” (Marketing)

These responses suggest that communication is frequent but do not indicate whether or not it is “bi-directional”, that is that it flows freely between all functions. To find this out, respondents are asked how “open” they believe communication is. All respondents agree that it is open.

“They’re all department heads they’re in the product (I keep forgetting what they’re called) Product Committee; yeah, yeah there’s no real secrets there.” (NPD Mgr)

“Information is available, readily available I would probably say readily available it’s there if you ask for it. It’s probably not often ... you (have to) ask for it.” (Operations)

R&D’s response further suggests that the open communication goes beyond the product committee.
“It’s actually a pretty open community really. Like I’ll often have someone from sales or someone else in the organisation, even people from the production line, will come in here with their ideas. So it’s pretty open.”

(R&D)

There has already been some discussion on conflict between functions and how it is handled. Though we already know that there is some functional conflict within the product committee, none of the respondents are particularly negative when asked specifically about conflict, suggesting that it is more functional than dysfunctional. All the responses suggest that it is usually quickly resolved at the committee level and is not taken personally.

“Well healthy debate doesn’t mean I hate you, it’s just because I don’t agree with you doesn’t mean to say you know we don’t like one another; you can always go and talk about the footy later” (NPD Mgr).

“Maybe once a month there might be a little bit of a topic that comes up that causes some frustration. But nothing that definitely isn’t resolved before we depart, reasonably quickly.” (Operations)

“So I think the organisation is mature enough, it’s good conflict.” (R&D)

The final topic discussed is always NPD success and how it is perceived by the interviewees. Typically the responses vary according to functional issues. NPD Mgr feels that while it has been successful to date, his role is to ensure its success into the future.

“Well I guess if you looked at the market performance you’d have to say really good. ... But I think we will have to rise to the challenge more in the next sort of five and ten years”

R&D measures success according to their speed to market as well as their ability to move quickly to correct issues.

“Oh look I give it I think we’re pretty good....Because we’re fast and I think we’ve got the experience. I’d rate us pretty up in the top 20% I suppose... I think we’re small enough and nimble enough compared to our bigger divisions to do it quickly and more accurately and rectify any oversights quickly because of the synergy of the team.”
Operations also see success in their speed to market as well as their ability to produce the most appropriate products for the Australian market. They feel strongly that the local element is what best maintains the firm’s competitive advantage.

“for all its flaws ... we were still first to market, we still had the biggest model range that was available to the customer base.... So from that perspective I’d give it a 7 ½ but from an actual implementation perspective ....Yeah and process perspective I’d probably you know give it a six, I think there is some room for improvement there next time around”(Operations)

Finance sees the end product as their greatest success as its premium quality and position in the market place allows them to gain optimum returns.

“In terms of the product we end up with I would say it’s excellent. In terms of the way we get there plenty of room for improvement....Because of I guess we, we are able because our product for Australian conditions is so far ahead of our competition and that’s evidence in our market share numbers and the premium we charge.”

Marketing sees the maintenance of the leadership position and market share as the best sign of NPD success.

“I have seen some mixed results but overall I would say that the company does it successfully and I would see that in the uptake of new innovations, I would see that in maintaining our market share....Yes it is nice working for the market leaders that's for sure but you have more to lose”

Despite their functional differences, all respondents agree that their local manufacturing is a benefit to the NPD success with their ability to customise to the needs of their market and get it to market more quickly than there competition. It is hard to argue that a company that produces what is considered the premium product for the market and holds a leadership position with almost one quarter of the market share is anything but successful.

5.3.3 Analysis: Does a Climate of Trust Exist at HEVIS?

The structure for the analysis will be consistent for each of the individual cases. This analysis, as with the previous case of INMAN, will utilise the evidence offered in the preceding section to determine whether or not a climate of trust exists at HEVIS. The
analysis is divided according to the theoretical framework developed in chapter 3 and will consider the development of a climate of trust through the collective perceptions of the members of the NPD project team in relation to (i) their faith in management; (ii) faith in the NPD process; and (iii) their organisational identification. It will further consider whether or not the climate achieved impacts on the collaborative behaviours of the individuals involved in NPD. The aim of the analysis is to offer support or otherwise to the four propositions arising from this framework (Table 5.2)

5.3.4 Faith in Management at HEVIS

PI: A high level of faith in management leads to a higher climate of trust within NPD

The theoretical framework suggests the organisational factors most likely to impact on the individuals’ faith in management include support by top management through the priority of NPD, the rewards and incentives offered, fair resource allocation, conflict handling procedures and tolerance for failure (blame placing). There have been significant changes in recent times that potentially impact on NPD at HEVIS. Firstly, is the retirement of their founding managing director. Secondly, is the addition of the NPD manager’s role to oversee and coordinate all NPD activities within the firm and finally the introduction of a more structured “stage-gate” type of process to NPD. Therefore, the following analysis will also consider structural flux to see whether these significant changes have led to a reduction in the individuals’ faith in management at HEVIS.

The first factor to be considered is the perceived priority of NPD within the business. This is largely impacted by the actions of top management. The current managing director (MD) has been in his position for only a couple of years, his predecessor having begun the company’s Australian operations. Most of the respondents have worked under both MDs. There is no doubt that from the descriptions given of the former MD he was perceived as somewhat of a “visionary” with a “flare for sales, a feel for the customer base and good relationships”. Conversely, he was also seen as “dominating” with centralised decision making practices of telling people what to do with little or no consultation. The new MDs management style is described as almost diametrically opposed to this, which is nicely summarised by NPD Mgr.
“he wants to make sure decisions are made collaboratively ... and having buy-in from all parties ... so that we’re all on the same page”

It is clear from this comment that he encourages more decentralised decision making within the business overall. In order to facilitate the new MDs more decentralised approach, he has added the NPD manager’s role, making the role responsible for setting up processes to collect data from all relevant functions and disseminate it so that informed decisions can be made at the product committee level. Being a new role within the firm, there is still some ambiguity as to the actual responsibilities of this role and it is acknowledged that “we haven’t seen the fruits of it yet”. Overall, it is being viewed positively by all respondents who agree that it has improved the perception of the priority of NPD within the firm, as well as their perception regarding support by top management overall by showing that NPD “is more than lip service ...a demonstration that it is serious about new product development.”

One of the major issues for NPD at HEVIS, particularly from NPD Mgr’s perspective, is the allocation of resources to NPD. As a very small player within the global market he feels that it is difficult to justify expenditure for NPD in the Australian market alone. The addition of his role as a dedicated NPD resource and a “voice” in the global organisation is considered by all respondents to be a positive move towards addressing this issue.

Conflict handling is also viewed positively at HEVIS. All respondents agree that there is a level of conflict between various functions, mainly between operations and the other functions involved such as marketing or R&D. However, they also all agree that though there may be “robust discussion” it is usually “worked out within the team dynamic”.

The impact of blame placing on NPD is particularly interesting at HEVIS. All respondents agree that there is some level of blame placing within NPD. This would usually be considered to have a negative impact on the development of a climate of trust. However, most people also agree that though they do get to the individual source of a problem, it is seen as a “more constructive way of looking at that to see what we can do better for the next time” and it does not change the behaviour of the individuals in relation to NPD. This is supported by the fact that they believe there to be more personal benefit than risk associated with NPD.

There are no specific evaluation criteria related to NPD at HEVIS. Rewards and incentives are still perceived to be individual and are based on individual performances and behaviours.
This is mainly due to the fact that the key performance indicators (KPIs) for each of the functions are set individually and some of the functions involved in NPD do not even have KPIs specific to their NPD performance. There are no collective incentives for NPD behaviour or performance.

Overall for HEVIS it appears that several organisational factors have impacted on the perceptions of the individuals involved in NPD. There is a strong perception of NPD priority largely brought about by the new MD’s addition of a dedicated NPD resource in the form of the NPD manager. This has also improved perceptions regarding the fair allocation of resources. These coupled with well-regarded conflict handling procedures are positive indicators of faith in management at HEVIS. Even blame placing which would usually be a negative contributor is viewed positively in this firm. Rather than being viewed as “blame”, the individuals see it as “getting to the bottom” of things and feel positive about the individual benefits they can gain through their performance during NPD. The only potentially negative factor is the lack of NPD specific KPI’s and related incentives and rewards. These findings suggest faith in management is relatively high, which is a positive indicator for the development of a climate of trust in support of P1.

**Table 5.10: Faith in Management and its contributing factors at HEVIS**

<table>
<thead>
<tr>
<th>Overall Faith in Management</th>
<th>Relatively High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing Factors</td>
<td>Positive</td>
</tr>
<tr>
<td>NPD Priority</td>
<td>NPD is perceived as “more than lip service” and is seen to be demonstrated through management actions</td>
</tr>
<tr>
<td>Fair Resource Allocation</td>
<td>The addition of an NPD Manager is perceived as “a demonstration that it is serious about new product development.”</td>
</tr>
<tr>
<td>Conflict Handling</td>
<td>Usually “worked out within the team dynamic” without being escalated.</td>
</tr>
<tr>
<td>Contributing Factors</td>
<td>Positive</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Tolerance for Failure (Blame Placing)</td>
<td>Blame placing is seen as a “more constructive way of looking at that to see what we can do better for the next time”. Therefore, rather than it creating perceptions of individual risk and risk averse behaviours, it is seen as a means of deriving personal benefits from NPD.</td>
</tr>
<tr>
<td>Rewards and Incentives Offered (NPD specific)</td>
<td></td>
</tr>
<tr>
<td>Changes in Top Management</td>
<td><em>The recent change of MD has meant a change from a somewhat centralised approach to one where “decisions are made collaboratively … and having buy-in from all parties … so that we’re all on the same page”</em></td>
</tr>
</tbody>
</table>

### 5.3.5 Faith in the NPD Process at HEVIS

**P2: A high level of faith in the NPD process leads to a higher climate of trust within NPD**

The most significant elements associated with faith in the NPD process at HEVIS include the degree of formalisation of the process, the type of decision making as well as their commitment to shared goals. As was the case in the analysis of the level of faith in management, external activities such as the amount of change within the NPD process and personnel are again significant.
It is important to note at this point that it was difficult to gauge the faith in the process at HEVIS at the time of these interviews. The introduction of the new role of NPD manager means that the process was in a state of change. As such, there is considerable caution in responses regarding the NPD process overall and whether or not they have faith in it. Conversely, these may be ideal circumstances in which to make these enquiries as respondents may offer insight into not only their faith in the process, but also their attitude towards structural flux and changing NPD strategies, both of which may potentially impact on the development of a climate of trust.

I will begin with an examination of the changes in strategy brought about as a result of the addition of the NPD manager. One of the responsibilities of this role is to change the current NPD strategies to not only facilitate decentralised decision making as discussed earlier but also to improve efficiencies. Some of the changes put into place have been to formalise the NPD process. The NPD process being introduced by the NPD manager aims to offer more structure through a stage-gate approach. All respondents agree that there are potential benefits to a certain amount of formalisation in creating a “much cleaner build” with more “checks and balances”.

However, R&D believes there is a caveat to the potentially positive impact of the new process. He acknowledges that it could potentially solve one of their biggest NPD issues of clarifying the “front end” of NPD and ensuring the specifications are correct before beginning design and production. However, he is concerned that too much structure may impact on the firm’s competitive advantage of being “quick to market” by slowing down the entire process. As an example, he describes the “frustration” of getting to the stage gate first and then having to wait for everyone else to get there before continuing. His aim is to try to implement a continuum of NPD processes from “less formal for the smaller projects” to more formal for larger NPD activities. Prior to the introduction of the NPD manager’s role, R&D were seen as the dominating function in NPD. It is not surprising therefore that it is R&D who is most cautious as to the introduction of a more structured process.

A further change to the process since the introduction of the NPD manager has been to the size and structure of the product committee. He has reduced the size of the committee so that now only functional heads (those interviewed) are involved. He has made it the responsibility of the heads to gather all the relevant information from their function to be presented to the
committee. As chair of the committee, all NPD information comes through him before it is presented at the committee so that he can ensure that by the time it gets to the committee “a decision can be made”. This has been viewed as “a very positive change”. It has improved the efficiency of the process as “you don’t have to wait and plan months and months ahead” and most importantly the autonomy of the committee that now has “a fair bit of power in terms of decision making and plotting the course of the future.”

A further advantage of the more formalised NPD process and streamlined product committee is that the process is now considered to be more objective with goals being determined “collectively” at the committee level.

In summary, the actions of the new NPD manager in formalising the NPD process and streamlining the product committee are perceived to have improved the autonomy of the product committee, and led to more collective goal setting, both of which are positive contributors to faith in the process overall.

It is also positive to note that despite their personal challenges and frustrations, both NPD Mgr and R&D maintain that they do have faith in the process.

“Do I have faith, yeah ... I think by hook or by crook we always get to where we ... our outcome is generally the right outcome” (NPD Mgr)

“Yep... yes I do” (R&D)

These sentiments of faith that the process “has proven itself over several years” and “is fairly robust” but “can be improved” are also shared by Finance and Marketing, showing that they not only have faith in the process, but with its continuous improvement. Only Operations believe that though “it appears to be a good process ... total faith in the process needs to be earned”. Though not as openly supportive of the process as the other functions, this response is not actually negative, just non-committal.

Table 5.11 shows that all of the factors thought to impact on faith in the NPD process at HEVIS are viewed positively, though sometimes with an element of caution by all respondents. This coupled with the fact that most functions also respond that they do have overall faith in the process suggests a moderate to high faith in the process, a further element in the development of a climate of trust supporting P2.
<table>
<thead>
<tr>
<th>Contributing Factors</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formalised NPD process</td>
<td>The newly appointed NPD manager is currently implementing a more formal stage-gate process. Respondents perceive that there are potential benefits to a certain amount of formalisation in creating a “much cleaner build” with more “checks and balances”. R&amp; D would like to implement a continuum of NPD processes dependent on the scale of NPD activity to avoid the new structure slowing down the process unnecessarily.</td>
<td></td>
</tr>
<tr>
<td>Autonomous decision making within NPD</td>
<td>The NPD committee that has been significantly reduced in number under the newly appointed NPD manager is perceived to have “a fair bit of power in terms of decision making and plotting the course of the future.”</td>
<td></td>
</tr>
<tr>
<td>Commitment to shared or “collective” goals</td>
<td>Goals are perceived to be determined “collectively” at the committee level.</td>
<td></td>
</tr>
<tr>
<td>Changes in NPD process</td>
<td>The more formalised process is perceived to lead to a “cleaner build” though there remains some caution regarding over-formalisation.</td>
<td></td>
</tr>
<tr>
<td>Changes in NPD personnel</td>
<td>The new NPD Manager’s position is perceived as improving the autonomy of the NPD committee and has led to more collective goal setting.</td>
<td></td>
</tr>
</tbody>
</table>
5.3.6 Organisational Identification at HEVIS

**P3: A high level of organisational identification leads to a higher climate of trust within NPD**

The extent of an individual’s identification with an organisation or a group within it has been shown to have a positive effect on both climates and trust, leading to more open communication and reduced inter-functional conflict. Therefore, the level of the individuals’ organisational identification will also be considered in relation to the development of a climate of trust. The framework proposes that the climate of trust will be higher within NPD if individuals identify more with the organisation or NPD team than with their functional areas.

In considering identification within the organisation, the initial responses are not particularly helpful as rather than discussing their own organisational identification, most respondents comment on the engineers at the firm, suggesting that their functional identification is the highest. Interestingly, the response from engineering is quite the opposite, suggesting that they actually identify more with their organisation, seeing themselves as HEVIS engineers. These responses suggest that further probing is needed to determine the level of organisational identification overall.

What is uncovered is a fierce loyalty to the organisation and in particular its major brand. All respondents agree that there is considerable “passion” and “pride” in working for a “premium” product, “known through all their family and friends” with a “following” compared to that of Ferrari or Harley Davidson.

These findings suggest that although organisational identification may be a little ambiguous at HEVIS, brand identification is strong. It will be interesting to note whether this type of identification will have a similar positive impact on a climate of trust that organisational identification is believed to have according to P3.
Table 5.12: Organisational Identification at HEVIS

<table>
<thead>
<tr>
<th>Overall BRAND Identification</th>
<th>Organisational Identification</th>
<th>Relatively High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NPD Mgr – 16 yrs with co</strong></td>
<td>Acknowledges that most employees believe they are here for “the benefit of the company”</td>
<td></td>
</tr>
<tr>
<td><strong>R&amp;D – 21 yrs with co</strong></td>
<td>As the longest serving employee, not surprisingly shows the strongest identification: “I think there’s definitely a (HEVIS) sort of stamped into you it seems to be in your blood, that’s why people stay here.” Also believes that the strength of the brand increase loyalty to the business</td>
<td></td>
</tr>
<tr>
<td><strong>Operations – 11 yrs with co</strong></td>
<td>Believes that length of time with the organisation is an indicator of people’s feelings about the organisation. Also shows more identification with the major brand, than the organisation as a whole: “The brand ... is known through all their families and friends. And they take great pride to say that they work in HEVIS”</td>
<td>Believes there is a reasonable level of functional identification at HEVIS, particularly in regards to the engineers.</td>
</tr>
<tr>
<td><strong>Finance – 10 yrs with co</strong></td>
<td>Acknowledges that the brand plays a role in people’s identification with the organisation, “they are immensely proud of the badge on the product”</td>
<td>Also believes that functional identification exists.</td>
</tr>
</tbody>
</table>
5.3.7 Is there a Climate of trust at HEVIS?

Based on the preceding analysis and propositions it would appear that following situations exist at HEVIS:

- Faith in management is relatively high with the addition of the NPD Manager’s role by the new MD perceived positively by all respondents in regards to his support of the priority of NPD within the organisation and its subsequent resource allocation. Conflicts are also well managed at a team level with even the allocation of blame being viewed positively as a means of improvement.

- Faith in the process is moderate to high despite major changes to both personnel and process. The introduction of a more structured, formalised approach by the NPD Manager as well as his streamlined NPD committee are both seen to potentially improve the autonomy and collective nature of NPD at HEVIS.

- Identification at HEVIS seems to be related more to their major iconic brand than to the overall organisation. Length of service again seems to improve the level of organisational, or in this case brand identification.

These situations suggest that in line with the propositions, the climate of trust will be relatively high at HEVIS. Specific questions relating to both climates and trust within NPD are asked to determine the current climate within NPD at HEVIS.

As discussed in chapter 3, individuals are not clear on the meaning of “climate” and as such struggles to answer a question specifically asking about the climate within NPD. In this case, the responses to questions on climate are influenced by their functional areas. Both Finance and Marketing respond with a customer focused perspective and see the climate as positive with NPD viewed as their “bread and butter” and “part of the philosophy of doing work here”. NPD Mgr and R&D have a more internal perspective and describe a degree of “frustration” with the climate. NPD Mgr’s frustration is with defining the parameters of his own role, while R&D’s relates to the effect of recent changes on NPD processes. Clearly these responses alone are not sufficient to determine the climate within NPD at HEVIS, therefore other indicators are necessary in order to confirm the propositions and will be discussed below.
Further questions are asked specifically relating to trust within NPD. These responses also provide interesting insights. When initially asked whether or not they trust the other members of the product committee, most responses are simply “yes”. Clearly this again is not sufficient to establish whether any element of organisational trust exists and how it is developed and maintained. Further probing as to “why” they trust the other individuals draws out organisational factors such as collaborative decision making, collective goal setting and pride in their product as impacting on the way people feel about NPD overall and the people involved in it. The fact that it is organisational, rather than personal factors that are said to impact on trust within NPD, suggests that a level of organisational trust exists.

A further component of trust considered in this study is the level of perceived risk felt by individuals involved in NPD. This also proved difficult to assess. A number of respondents acknowledge that there is some level of “blame placing” at least to the point of issues being “tracked back” to a particular discipline if not individual. However, when specifically asked if they feel any individual risk in regards to NPD, their responses indicate that though the accuracy of their personal decisions are at stake, there are more “upside risk” of acknowledging “pride and satisfaction” in their work than “downside risk” of failure. These show that the level of personal benefit is higher than the level of personal risk within this firm which should have a positive impact on the development of a climate of trust.

These results of this case study suggest that the perceived individual risk and relatively high climate of trust within NPD at HEVIS may be a result of high faith in management, high faith in the process and high brand identification. This appears to support propositions 1 and 2. However Proposition 3 is not supported in this case where brand identification appears to be a more important variable than organizational identification. This will be noted and examined further in the remaining cases. The final stage in the analysis will be to consider whether the development of a climate of trust impacts on individual behaviours and ultimately NPD success.
Table 5.13: Climate of Trust at HEVIS

<table>
<thead>
<tr>
<th>Climate of Trust</th>
<th>Relatively High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propositions</td>
<td></td>
</tr>
<tr>
<td>Faith in Management</td>
<td>Relatively High</td>
</tr>
<tr>
<td>Faith in the NPD Process</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>Organisational Identification</td>
<td>N/A</td>
</tr>
<tr>
<td>Brand Identification</td>
<td>Relatively High</td>
</tr>
<tr>
<td>Supporting Evidence</td>
<td>Positive</td>
</tr>
<tr>
<td>Organisational (“swift”) Trust</td>
<td>Organisational Factors such as collaborative decision making, collective goal setting and pride in their product, rather than individual characteristics are described as the reasons that people trust the other individuals involved in NPD at HEVIS.</td>
</tr>
<tr>
<td>Perceived Personal Risk</td>
<td>Individuals are perceived to be responsible for their contributions within NPD. However, rather than viewing this as a “downside risk”, it is seen as more of an “upside risk” of acknowledging “pride and satisfaction” in their work.</td>
</tr>
</tbody>
</table>

5.3.8 NPD Outcomes at HEVIS

**P4:** A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.

One of the objectives of this study is to expand previous research and shift the focus from “integration” as a desired outcome of cross-functional relationships within the NPD process to “collaboration” and collaborative behaviours such as bi-directional communication, mutual accommodation and functional, as opposed to dysfunctional conflict. Therefore, it is these collaborative behaviours that will be considered as well as overall perceived NPD success.
There is considerable evidence to show that there is frequent communication at HEVIS with all respondents agreeing that there is considerable informal communication outside of the weekly formal communications for the product committee. However, frequent communication in itself does not reflect collaborative behaviours. To be considered collaborative the communication must freely flow between functions. This also seems to be the case at HEVIS where it is suggested that information is “readily available” with “no real secrets there”.

There is also further evidence of the collaborative nature of the product committee at HEVIS. Operations actually describes it as “effective” and “collaborative”. Marketing offers a little more insight into what makes it “collaborative” by describing their “strong sense of supporting one another and not seeing people fall”. This offers the best indicator that mutual accommodation exists within NPD. It also appears that the new NPD manager’s role again plays a part in influencing this behaviour.

“I would say my role is .... Scouting around all the different parts of the company to help present the issues of the other department or understand the issues of that department so I can communicate it within”

Conflict has already been discussed and it is evident that though it exists it is well managed within the product committee. This suggest that conflict is functional rather than dysfunctional which is supported by this comment from R&D.

“So I think the organisation is mature enough, it’s good conflict”.

Perceived NPD success, as was the case with INMAN, differed according to the function asked. NPD Mgr feels the pressure of his job to ensure the long term success of NPD within the company, where R&D and Operations gauge their success as being first to market with new products. Finance sees success in being considered the premium product in the market and therefore being able to charge a premium rate and Marketing gauges their success by their ability to maintain the market leaders’ position and almost a quarter of the market share.

Overall, the evidence suggests that collaborative behaviours do exist within NPD at HEVIS. Though the actual definition of NPD success is difficult to define, you would have to consider NPD a success in a company producing what is perceived to be the premium product in the market in which it has consistently been the market leader with a substantial share. This
finding supports P4 that a climate of trust increases the likelihood of collaborative behaviours and NPD success

Table 5.14: Collaborative Behaviours at HEVIS

<table>
<thead>
<tr>
<th>Climate of Trust</th>
<th>Collaborative Behaviours</th>
<th>Relatively High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Bi-directional Communication</td>
<td>There is regular communication both formally through weekly meetings and informally. Information is perceived to be “readily available” with “no real secrets there”.</td>
<td></td>
</tr>
<tr>
<td>Mutual Accommodation</td>
<td>Perceived to have a “strong sense of supporting one another and not seeing people fall”. Supported by NPD Managers’ role who is seen to communicate issues between departments.</td>
<td></td>
</tr>
<tr>
<td>Functional Conflict</td>
<td>It is already acknowledged that conflict exists and is well managed within the NPD project team. It is perceived to be “good conflict”</td>
<td></td>
</tr>
</tbody>
</table>
5.3.9 HEVIS Summary

Table 5.15: Findings from the HEVIS analysis

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1: Level of Faith in Management</td>
<td>Relatively High</td>
</tr>
<tr>
<td>P2: Level of Faith in the NPD Process</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>P3: Level of Organisational Identification</td>
<td>Relatively High</td>
</tr>
<tr>
<td>Climate of Trust</td>
<td>Relatively High</td>
</tr>
<tr>
<td>P4: Level of Collaborative Behaviours</td>
<td>Relatively High</td>
</tr>
</tbody>
</table>

It is clear from the evidence presented and the preceding analysis that a climate of trust does exist at HEVIS. This is represented in this case with the support of all four propositions. Many of the positive aspects associated with the climate can be attributed to changes in top management at HEVIS, specifically the new Managing Director. His management style coupled with the addition of a dedicated resource in the shape of the NPD Manager to coordinate NPD activities impacts on several of the components considered for this study and overall encourages collaborative behaviours within NPD.

In relation to their faith in management, the appointment of the new NPD manager has improved individual perceptions regarding support for NPD by top management through the perceived priority given to NPD at HEVIS, as well as the perception that NPD resources will be well defined and therefore more likely to be allocated.

From a faith in process perspective, the NPD Managers’ changes to strategy such as formalising the NPD process and streamlining the product committee are seen to have improved the autonomy of NPD as well as leading to more collective goal setting at a committee level.

Overall it is evident that although there is significant structural flux at HEVIS in relation to changes in management, personnel, strategy and process, it has had a positive effect on the climate of trust within NPD. This in itself is an interesting finding as structural flux is
traditionally viewed as contrary to collaborative behaviours. The evidence at HEVIS suggests that it is not change in and of itself, but the TYPE of change that impacts on individual perceptions and their behaviours.

Other points of interest at HEVIS include the fact that although blame placing exists, it is viewed positively by all respondents as a means of “getting to the bottom” of things rather than “finger pointing”. This perception reflects the overall positivity of the climate at HEVIS and further supports the findings that a climate of trust exists.

This is further manifested in the individuals’ perceptions regarding risk. Although all respondents agree that there are personal elements associated with their involvement in NPD at HEVIS, it is not perceived as a personal risk but rather as an opportunity for personal gain. This positive perspective of another trait that can be viewed as negative in other organisations is a further indicator of the positive influence of developing a climate of trust such as that which exists at HEVIS.

The outcome of all these positive perceptions is collaborative behaviours where information is openly shared, functions are supportive of each other and conflicts are handled within the product committee. It is not surprising therefore that the HEVIS employees interviewed have such pride in their company and that it manages to maintain their significant market share and leadership position in the marketplace.

A further point of interest is the significant contrast to the influence of the Managing Director in this case when compared to the previous case, INMAN. In their case the Managing Director is viewed as the main driver of NPD. The size and scope of INMAN means that he can be personally involved with all aspects of the business. His management style, although quite centralised is perceived to be positive, particularly in regards to his conflict handling techniques that mean that conflicts are resolved at a project level, with no blame placing or personal risk. As the managing director is also the “project leader” of NPD at INMAN, the faith they have in his management style has also filtered in to their faith in the process he leads. Therefore, despite the lack of structure or any form of collective goal setting, they achieve a relatively high climate of trust. However, as much of their perceptions centre around the management practices of their Managing Director, INMAN is not particularly well placed to maintain this positive climate under a new management regime.
In contrast, the new HEVIS Managing Director has a much more decentralised approach in his management style. He has made organisational changes that improve the perceptions of the respondents regarding almost all the factors thought to be associated with the development of a climate of trust, one of which is to allocate a dedicated resource in the form of the NPD manager to facilitate NPD activities. This role means that the “project leadership” of NPD can shift from his shoulders to that of the NPD manager. As such, it would appear that HEVIS is more able to maintain its climate, assuming the factors remain in force, even after he departs.
5.4 Case 3 (FOODIS)

5.4.1 Description:

Case 3, to be known as FOODIS, is the largest of the four cases examined for this study and the only one with products marketed directly to consumers. It is one of Australia’s largest food and beverage companies manufacturing the products for some of our most well-known brands of milk, dairy foods, juice, soy beverages and specialty cheeses. It began as a merger between several dairy and food businesses and more recently expanded into the juice market through a merger in 2005. It is currently the market leader in a number of its product categories and employs approximately 5,000 people with annual revenues of approximately $3.5 billion. As many of their products are perishable, their export orientation is very small at about 1% (not including New Zealand which is considered domestic). It is a fully owned subsidiary of another large Australian beverages organisation, which in turn is owned by a Japanese corporation with holdings throughout Asia and Oceania, the USA and Europe.

FOODIS rapid expansion, largely through acquisition, into new and varied markets has posed many challenges to the organisation in regards to, among other things, their NPD activities. In particular, this has meant that they have had to integrate not only NPD personnel from various companies, but also their NPD processes. The number and type of products manufactured, leads to most of their NPD resources being occupied by small, incremental changes to existing products. They do not have dedicated resources allocated for “blue sky” NPD. NPD is carried out in cross-functional teams led by project managers who are usually from marketing. A further aspect of FOODIS that is unique to the cases examined is that the nature of the products manufactured means that the R&D specialists are scientists rather than engineers.

The interviews took place with individuals involved in all aspects of NPD, from different divisions such as juice, cheese and international, giving an overall perception of cross-functional relationships within the organisation as a whole rather than the narrow perspective of one team. Table 5.14 provides a summary of the interviewees. All but one of whom were located in the one building, though on separate floors. The General Manager R&D oversees all NPD from a strategic business perspective. The R&D Manager’s role is to examine the NPD process and how it can be improved overall. This respondent was particularly candid.
Table 5.16: Individuals interviewed for FOODIS case study

<table>
<thead>
<tr>
<th>Position/function</th>
<th>Name given to function for Analysis</th>
<th>Time in Role (years)</th>
<th>Time with Company (years)</th>
<th>Number of NPD projects involved in</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Manager R&amp;D</td>
<td>GM R&amp;D</td>
<td>2</td>
<td>2</td>
<td>Too many to estimate</td>
</tr>
<tr>
<td>Manager R&amp;D – Technology Strategy</td>
<td>Mgr R&amp;D</td>
<td>0.5</td>
<td>3</td>
<td>“A lot”</td>
</tr>
<tr>
<td>Food Technologist– Juice (R&amp;D scientist)</td>
<td>R&amp;D</td>
<td>1.5</td>
<td>6</td>
<td>Approx. 80</td>
</tr>
<tr>
<td>Operations Manager – Specialty Cheese</td>
<td>Operations</td>
<td>0.5</td>
<td>19</td>
<td>20-30</td>
</tr>
<tr>
<td>Marketing Manager – Food International</td>
<td>Marketing</td>
<td>3.5</td>
<td>3.5</td>
<td>Approx. 12</td>
</tr>
<tr>
<td>Manager Consumer Innovation Insights</td>
<td>Consumer Insights</td>
<td>1.5</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The Food Technologist is actually involved in the development of new products in the juice division. These three roles represent a hierarchy within R&D in the company. The Operations Manager is the only person interviewed who was not on site. The size and scale of the organisation means that FOODIS have manufacturing plants across Australia and that most operational personnel are located at the plants. The Marketing manager interviewed is responsible for all food products. The Manager Consumer Innovation Insights is involved with the early idea phase of NPD, bringing consumer insights to the NPD team. These last two both offer a market perspective to the case. A major difference between the interviewees at FOODIS and the other case studies was the length of time in the business with all except operations being with the company for only 2 – 6 years. Also note the number of NPD projects that each respondent has been involved in. It is considerable more than the other cases due mainly to the fact that their NPD is mostly small, incremental changes.

5.4.2 Gathering the Evidence

This section will discuss the evidence gathered through the interviews. In line with the protocol used in the previous cases, each of the interviews will be discussed following a particular format, delving first into organisational factors as they are believed to be the
antecedents to the individual perceptions that impact on the climate of trust and the behavioural outcomes that are achieved. The analysis of the findings from the evidence will then take place in the following section, 5.4.3 to determine whether a climate of trust exists at FOODIS.

As always, the first question posed to each interviewee is “what would you change” in regards to NPD in the organisation. The main issue drawn out from the question in this case is the need to improve their “blue sky” innovations. **GM R&D** defines this as:

“One of the key ... failings in a lot of people's eyes would be that the front end of the NPD process is not delivering sufficiently ... have we got the great ideas to start with? Yeah we can manage them effectively through the stage gate process but are we just managing average ideas or are we managing great ideas?”

**Marketing** also sees this as an issue and suggests the implementation of two “streams of innovation”.

“I quite like the idea of almost having two types of innovation streams; one as you’re doing the business you are currently doing which is what our innovation process is pretty well set up for, and you’re doing tweaks ... and that sort of thing. The thing we’re not very good at FOODIS ... is you know radical innovation and all that so we really probably need to do something”

**Mgr R&D** simply talks about the need for a more “fluid” process. This is particularly interesting as her role is to look at the continuous improvement of their NPD process, which is currently a very formal, stage-gate process. The Stage-Gate model, originally designed by Dr. Robert G. Cooper, is an extremely useful and powerful tool in product development. It splits progress into a series of “Stages” and “Gates” to give a well organised and structured flow to the project.

“I would change the philosophy that it is actually a process ... because I think when people actually say process they you know it’s all about administration or ticking boxes, anything to make it more fluid and easier... and giving them the freedom to actually create and work together.”

**Consumer Insights** acknowledges the same issue, though still wants to initiate a “formal” process to address it.
“One of the frustrations here... is that we don’t have a formalised process of capturing ideas ... So idea generation often (is) less about ... formalised planning ... and more about you know gee we need some ideas or let’s get some ideas, or let’s do a brain storm. You know it could happen any time of the year and it’s not necessarily planned or strategically planned.”

Although R&D doesn’t mention it as the most important issue in NPD, she also acknowledges it as an issue.

“A new idea a big new idea it’s probably once every two to three years which is a bit disappointing and then they usually don’t last in the market place because it’s either too new you know or consumers don’t accept them.”

Operations too makes mention of this issue.

“We need to do the bigger projects and you know look for the more type stuff, where’s the next big step. I think we’re doing a lot for little steps”

The need for more innovative NPD has apparently been noted by top management as well. GM R&D, who works closely with the group executive, acknowledges that NPD has recently been identified as a business risk.

“Failure to deliver to our NPD growth requirement has been identified as one of those top 19 (risks)”

As already mentioned, the “failure to deliver” is not in regards to incremental changes to products, but relates mainly to the more “radical” NPD projects.

“Look we’ve got a robust stage gate process in place and that’s been in operation for a number of years, you know we continue to fine tune it to improve it. But I think one of the I guess the endorsements we’ve just recently got now from the group executive is facing into the fact that we’ve only been addressing a small part of what we need to do if (we) truly want to be innovative in the Product Development space. ... We get great ideas but we also need to have portfolio management culture in place and how we manage across that portfolio and allocate our resources. And also... around cultural and leadership within the business.”
These responses suggest that despite the size and resources of FOODIS, the NPD concerns are still in line with the other smaller cases considered. That is, what are the resources and processes necessary to improve the “front end” of the NPD process in order to create a more innovative environment for NPD.

All respondents agree that NPD is important for the long term success of the organisation,

“To keep growing and to maintain your number one status is very important to keep recreating new things.” (Mgr R&D)

“It’s very important. We’re a company of branded products so we know that product innovation is very important to the growth of those products. So yeah I think it’s extremely important.” (GM R&D)

“Culturally it’s very important for us. But we’re not very good at it.” (Consumer Insights)

“If we didn’t have those (new) products we’d be struggling from a sustainability point of view” (Operations)

Despite this, Marketing suggests that top management seem to be focused on short-term gains rather than the long term strategic benefits of more innovative NPD.

“I feel like the NPD process domestically is very much trying to get quick and easy wins “

This concern with the short-term perspective of the management team is also shared by Consumer Insights.

“There’s probably a degree of impatience around from management to say why aren’t we doing better than what we have.”

As a result, the actual priority given to NPD remains ambiguous. Previously, growth was perceived to be the main priority based on the company’s strategy of “acquisition and integration”. Marketing reflects on this acknowledging that the priority should change as the acquisitions slow down.

“Not at the moment but I would say it’s about to become a huge priority for them in the next 12 months because ... There isn’t any immediate acquisitions on the horizon ... So FOODIS will have the spotlight on them I guess ... the Japanese will say oh ok now what, how you going to grow, how
are you going to get more money, how you going to improve your margins. And then all of a sudden the board or the managers in the board will start saying you know we’re going to innovate yeah, yeah.”

Mgr R&D has similar perceptions as to the priority of NPD

“They know it has to happen but I believe they think it’s a priority but I don’t think they know how to make it happen.”

R&D, who is the furthest removed from the executive, however, still feels no change in their priority, suggesting that the importance of NPD and its priority has not yet filtered through all relevant functions in the organisation.

“Probably honestly not a high priority, it is one of the things that we try and say we’re doing. But there’s always cost downs at the moment cost downs are coming above New Product Development and just product maintenance.”

Only Operations feels that NPD is already a priority

“I think overall generically New Product Development is a priority.”

One of the ways used to encourage the development of more innovative idea generation is through an ideas bank, though GM R&D acknowledges that it has not been very successful to date. The role of the Consumer Insight Manager is also seen as a method of addressing the issue of innovation. However, it is also noted that though an “idea pack” was launched with great “fanfare”, it has since “fizzled” out. Marketing suggests that as project managers, people have come to rely on marketing to come up with ideas.

“I think here it’s like marketers are tasked with coming up with great ideas and to a certain degree probably helps every other department as well because they can sort of say well you know given that we haven’t got a great track record at success in NPD and marketers have got to come up the next ideas; I don’t have to stick my neck out ... and if it fails I can just keep saying bloody marketing useless guys... So I think there might also be a bit of that.”

This quote gives some indication that perceived personal risk is probably higher at FOODIS than in the cases previously examined.
One aspect of NPD that is in line with the other cases analysed to date is the individual nature of the incentive system. The current incentive system at FOODIS relies on key performance indicators (KPIs) that are set at an individual level, which if reached may impact on your individual salary. One of the methods Marketing believes will encourage people to be more involved in idea generation is to include in these KPIs a significant incentive that directly relates to NPD.

“There’s no bonuses so there’s like an annual performance review and you set your own KPI all that sort of thing and you’ve got to achieve these things. But you know it might affect your salary whether you get 5% or 6%, or 4% but there’s no, like you know, everyone must have 20% of their KPI innovation. And at the end of the year we’ll have a bonus which could be up to 20% of your salary based on the new sales that we generate. There’s none of that there’s no strategic levers in the background.”

However, this view is not shared by all functions involved in NPD. When asked whether an incentive specific to NPD would impact on people’s behaviour, both the Mgr R&D and Consumer Insights think that it will not.

“I personally don’t think so. Other people may run on that I’d prefer ...a project to run smoothly and get on the shelf ... that’s my incentive ... it’s great to have an incentive but to have your product on the shelf and to work on a great team should I think should be ... enough.” (Mgr R&D)

“I think there’s a willingness within this business to embrace and really drive NPD anyway. So I don’t know whether incentivising people would change things.” (Consumer Insights)

Interestingly, when it is taken down a level to R&D, the actual person working on the new products within the team, the response is more positive.

“But yeah incentives are always good and always makes you work that little bit harder.”

There is a general rewards programme known as “reach”, where anyone can get nominated for a reward. It can also be individual or team nominations. In fact, an NPD team has recently won the award. However, this programme is seen to reward individuals or teams for
going “over and above” the call of duty, rather than rewarding them for NPD achievement or innovation.

“There is a lot of rewards system within (FOODIS) whether it be … our reach awards... and it looks at people that go above and beyond. So potentially they could stand as a group or ... they do another reach awards where the prizes are $1000 donation to any of the charities that that group agree to give to. So they do look at teams that have excelled. So yeah within all those there is …reward and recognition but I wouldn’t say it’s specific to New Products, but there’s no reason why that wouldn’t be.” (Operations)

Although this reward programme is not specific to NPD, there is certainly potential for it be used to reward positive NPD behaviours and success if it is believed that this will improve the climate within NPD.

It is reasonable to assume that a major advantage brought about by the size of this organisation is its resource allocation. They do not have the issues of the other cases of having to justify resources. As one of the largest companies in Australia, they have a “pot of resources” whose allocation is considered to be “quite fluid”. However, it is evident that despite this, there are still a number of resource issues within NPD.

Several respondents believe that though development is well resourced, there is inadequate resourcing for the launch and immediately following to ensure the success of the new product.

“I found we do everything in our power to get a new product to launch and it’s not supported, like the funds aren’t there to support the actual launch. So consumers don’t know it’s there, it’s hidden on the shelf. And because it’s not supported it dies … If we get the brief from marketing and we actually have one of these massive blue sky ideas … there’s no issues we get funds for trials and the business supports it. But once it hits the market then there’s no funds to actually support it. So usually the outtake is if it lasts six months then we’ll start supporting it but in a lot of cases it doesn’t, so the funds are cut and it’s dead.” (R&D)

Consumer Insights also sees the lack of resources post launch as an issue regarding NPD success.
“Resources are poor and focus goes somewhere else. We have got a graveyard full of products that were launched and deleted probably within six months.”

Many of these issues are also reflected in the discussions on structural flux. The company’s continuous acquisition and integration has led to numerous changes in NPD. Operations acknowledge them but suggest that it has little impact on operations.

“Look we’ve just had change after change after change not small change or insignificant massive you know. If you look at operations ... generally overall 85% of operations has continued to do what it’s always done. If you look at say sales and even marketing you know they’ve changed constantly every six months and probably had very high turnover and that may lead to sort of fair amount of disengagement.”

GM R&D supports the view that both marketing and R&D have seen significant changes in personnel involved in NPD.

“Look just from that NPD process you know we’ve had enormous amounts of change in both the marketing and the R & D teams as a result of particularly the integration process that we’ve just gone through.”

Mgr R&D agrees that integration is a major issue, not only in regards to NPD personnel, but also for NPD processes.

“Absolutely we’ve increased 50% in the last six months ... It was mainly due to the integration ... you wouldn’t know each other’s style, you wouldn’t know each other’s personality. Within the management team ... we’ve got three new people so there’s a lot of change as well as processes are changed.”

R&D supports this view talking about the loss of valuable knowledge on one hand and the gaining of new experience on the other.

“Yes huge lately. Mainly because of the merger ... our team’s doubled in size and staff have turned over quite a lot too ... I guess it gives us the chance to amend or make changes if we need to. Which I guess is happening, because now the new process has started to get in place and better systems. Which is good because then you get a new lot of knowledge
in. You do lose a lot of knowledge with people leaving but then also you gain experience from new people coming in and they might have a bright idea how to fix something, which is always happening.”

These quotes by Mgr R&D and R&D also allude to how integration has created changes in NPD strategies. This is supported by GM R&D.

“Yes as we’re continuing to ... work through it. And absolutely that has an impact because you’re bringing in together two business that while we had a commonality in the way we approached NPD there were definitely differences so that’s causing some, I wouldn’t say friction, but it causes you to ... evaluate ... can we make sure we’re not losing good stuff out of both processes as we bring them together but it also means you’ve got a bunch of new people. ... So you’ve got a whole bunch of new people in, you know, key departments suddenly not knowing the business processes, not knowing how we’ve done NPD. And that has an impact you, you know.”

Mgr R&D further supports this confusion about the NPD strategy.

“If you actually told me what our NPD strategy is in the business I couldn’t give it to you...which is a major concern ... we want to be a $6 billion business by 2015 but you can’t actually say of that growth what is actually in NPD ... so you couldn’t tell our strategies in an elevator you know, you couldn’t.”

Operations’ main concern about the changes is that they slow down the NPD process.

“I think it’s just in some cases may have made it, I think it’s given a more rigor, but at the same time may have slowed the process.”

Given the significant changes that have taken place with the acquisition and integration of smaller companies, their NPD processes and strategies, coupled with the ambiguity of NPD priority in the firm, it is not surprising then that there is a certain level of conflict, “frustration” and/or “friction” between individuals involved in NPD.

“I guess its frustration yes, if you call that conflict.” (Mgr R&D)

“Yes there’s always conflict about something, usually around claims that marketing want to make and then my job is to be the fun police and tell them
that they can’t have that because it’s unrealistic or something like that. “(R&D)

“I think because there’s ... admission that we’re not as effective as we need to be on multiple levels ... That’s frustrating and disappointing. ... It’s also frustrating because I think we spin our wheels too much ...we waste a lot of time but the end point never seems to shift so that creates a lot of frustration and a lot of friction.” (GM R&D)

This is supported by Marketing,

“The whole tone in the meetings are quite conflictual it’s quite sad ... some people feel like they’re constantly getting beaten up in the process.... Just that the feeling ... it’s not an inherent strong you know conflict it’s just the tone of the meeting it feels a bit conflicted.”

The following quote provides a description of where Marketing believes the conflict lies. As we see, it is not specific to a particular function, but relevant to many of the functions involved in NPD.

“there is conflict within the work groups, like the marketers want to do something and R&D are saying, hey, the time frame is far too short and then we’ve got the rest of the department who are saying you can’t claim that, you can’t claim this, you can’t claim that and legal are no, no you can’t do this you can’t do that. ... And then you’ve got the (operations) going your volume is too small, my factories are being set up now after 10 years of cost cutting and operational only do big size runs we’re not interested in mucking around with the NPD sort of thing.”

It is only Consumer Insights who has a dissenting view.

“Generally not, because we have a culture within this business of being very supportive collaborative ... I would think that sets this business apart from other businesses that I’ve worked in. It appears people have a genuine desire to make NPD work and will go the extra mile to try and find ways to overcome obstacles and barriers that they might get in their functional area.” (Consumer Insights)
Much of the “friction” described is directed at the marketing function. Most NPD project managers come out of the marketing department and, as such they are seen as the dominating function in NPD.

“quite often it’s directed towards the marketing group because I guess they’re often the ones saying that the end point can’t change because we’re locked in we’ve committed to our retailers and it’s committed in our budget that you know we got to deliver this at that point in time.” (GM R&D)

Marketing also acknowledge this friction.

“So there’s a bit of constant almost sort of like a friction and I’ve just got to … try and overcome it … it’s almost like a reluctance … to come to these meetings and to follow up all the actions “

Mgr R&D suggests a further reason for the “friction” within NPD.

“People just tend to go in a shell and not give their opinion then…Because they’ll get shot down.”

When asked “by whom” they respond:

“Generally the Project leader (who’s generally marketing) Yep”.

The leadership of the project is actually an issue for most respondents, again highlighting the conflict between marketing and the other functions. Mgr R&D openly states that marketing are the wrong people to lead an NPD project.

“Absolutely I don’t think that marketing actually … have the structure to lead a project. They have the creativity and they have the business (sense) … but on the whole one of our major flaws is we don’t have structure. We are not good project managers. So nobody knows the overall core roles and responsibilities so you have that tension straight away. Timelines aren’t there.”

Operations too feels the project management is a weakness.

“we don’t project manage it very well … we probably have some very good work around development of new products and how we’re going to put them to market and what they’re going to look like and what they’re going to taste like and how much we’re going to sell. And even from engineering, how are
we going to make it. But the person that ties it all together ... it falls back to the marketer and I don’t think that’s realistic ... I think we should ... have some purpose based project people to run those types of things.”

**R&D** agrees and further speculates that marketing “couldn’t cope” with another function heading NPD.

“Yes, marketing couldn’t cope. Honestly because any project that I’ve ever tried to initiate it’s hard to get their support and to try to push it through they’re very resistant because the idea hasn’t come from them, that’s what I found, so, I’m usually quite happy to let them ride the bus so. Drive the bus and be in charge and yeah.”

This response suggests some competition, or rivalry, between marketing and R&D in regards to NPD leadership.

There is also evidence that another area of conflict comes from the issue of operations having competing key performance indicators (KPIs) to the other functions.

“It could be you know we want to implement a product that you know is actually frankly a pain in the arse to manufacture, to make... Which you know competes with their (KPIs) or you know doing things in the most efficient way.” (GM R&D)

**Operations** expands on this further.

“You know we got multiple (KPIs) but we still need to be a high performer in conversion cost and efficiencies and safeties ... so the impact of some of these products are although they look good from a financial perspective but from ... an operation performance and a safety performance it may not be.”

Further probing is carried out in relation to how these conflicts are managed within NPD. Though the aim is to manage the conflicts that do arise between functions at the project level, it sometimes escalates to at least a functional heads level.

“Typically how it’s handled is if it can’t get managed within that project team itself or can’t get resolved within the project team itself... it would get typically escalated through the functional sort of groups. So you know if it can’t get resolved by the leaders of the project team and then they would go
to sort of their line managers and you know there would be a discussion held at that sort of next level of seniority.” (GM R&D)

The level of escalation seems to depend on the individual project managers who, as mentioned are usually from marketing.

“It depends on the situation and again it comes back to the strength of the leadership of that project team. And that varies significantly so you know if the project team leader is able to you know hammer out an agreement within the group that’s obviously the best way to do it, but if that can’t be done then it does get escalated.” (GM R&D)

It is not particularly surprising to note that this “friction” leads to a certain amount of blame placing within NPD at FOODIS. However, the following responses suggest that although there is blame placing, it happens at a functional, rather than a personal level.

“Yeah oh blame placing yes. Not so much even (the) person that did it - tends to be the head of that area.” (Marketing)

“Obviously R&D will get blamed for technical failure.” (Mgr R&D)

“Obviously if I was at fault then it would be my manager I’m sure I would find out about it, but I haven’t … been in that situation.” (R&D)

These perceptions of blame placing seem to be most prevalent within marketing and R&D functions. Operations do not believe that blame placing is an issue at FOODIS.

“There may be some blame placing on particular items for instance you know packaging, packaging hasn’t arrived or your art work is not approved at the required time. So there may be some blaming you know but … you know a lot of the time its acknowledgement there’s been a problem in the process. I don’t think too much finger pointing as it’s your fault that this has … yeah, I don’t see much of that.” (Operations)

Consumer Insights appears to take a more “politically correct” approach to this question, suggesting that rather than placing blame, mistakes are seen as “learning” experiences.

“No significant blame from what I’ve seen and we’ve had a lot of NPD go wrong. It’s a bit of a copout to say you try and learn from your mistakes and we’ve definitely got a process where you document well what did go wrong.
What do we think the learning’s from this project have been with a view to let’s not make the same mistakes. But and that’s the culture we tried to, I think we tried to, install from the top down, let’s learn from this. You got to try stuff and not everything’s going to work.”

This view is not supported by any other respondents, suggesting that perhaps the “culture” she is referring to has not yet filtered down to those actually working on NPD projects.

It is clear from these responses that there is conflict and a level of blame placing between functions. There is also evidence of some competition, at least between marketing and R&D in regards to project leadership. This led to further probing to try to determine whether these issues led to inter-functional rivalry within NPD. Interestingly, this does not appear to be the case. **Mgr R&D** believes that NPD is more cooperative than competitive.

> No absolutely not this isn’t a business that actually promotes it (rivalry) and I’m from [company x] who actually heavily promote that and they kind of employ people that are actually quite competitive. This is a great place to work because effectively everybody wants to get it done. We just don’t know what we need to do.”

**R&D** agrees that it is not a competitive environment.

> “Don’t think so not usually. Because you’re all there for a reason. Everyone has a different role and responsibility so you can’t really be in competition for something if you’re not really. It’s not really your function so there’s no point in being in competition”

A further factor discussed is whether goals are set collectively by the project team. **GM R&D** believes that there are collective team goals.

> “Oh no there’s absolutely team goals that are in place, yep.” (GM R&D)

However, further probing suggests that the only “collective goal” in place is actually the launch date.

> “Generally yes they’re working for the same goal ...A lot of the time the goal is the launch of that new product.” (Operations)

"The only goal is the launch date that’s the only thing in a team that you’d actually focus on” (Mgr R&D)
Although some decisions are made at the NPD level such as conflict handling and launch dates, the highly formalised nature of the NPD process appears to slow down the decision making process overall by taking much of the decision making power away from the NPD project team.

“We can’t make quick decisions that yeah you have to wait for your monthly meeting unless you walk around the paper work, which is not encouraged so there’s no quick decisions and there’s no quick answers, it’s yeah it does take quite a while.” (R&D)

“it goes to general managers first and they sort of sign pieces of paper and then it goes up ... you know I feel like Penny Wong trying to get the emissions trading scheme through parliament. It’s that many signatories and people need to sign on.” (Marketing)

“I think it’s (decision making) a little bit slower than it used to be. I still don’t think there is any blocker to encouraging people to make decisions quickly but you got a lot more red tape if you want to call it that to get through.” (Operations)

This formal structure also leads to minimal autonomy in decision making overall.

“To be honest I’m not sure that they’re particularly empowered.” (GM R&D)

“It’s (decision making’s) done in a higher level I think” (Operations)

**Consumer Insights** is the only function with a differing view.

Yeah I think from all the cross functional project teams I’ve been in, that everyone is in power within the team to either offer up an idea even not within their own area, so yeah. They can... make decisions fairly quickly.”

She goes further to support her view.

“Autonomy, well yeah ... working within the team there’s autonomy. You do still need to meet certain stages in or gates within that development so as to follow a process but within that process the autonomy to you know look at better ways to manufacture cheaper you know, ingredient sourcing, ...
you’re empowered to explore or look for those opportunities or make those decisions.”

Mgr R&D believes that this lack of autonomy has impacted on the overall climate within NPD.

“Look [FOODIS] is a great place to work. We all want the same thing. The biggest issue is we’re not comfortable or the tension actually come from that we’re not actually given a lot of autonomy. So you can’t just get in and do something and make the decision. So you’re actually even second guessing yourself even if you got a lot of experience. Because it’s like oh well you know is this the right thing to do even though you’re quite willing to take ... the responsibility. But it’s like ok well I’m now going to have to go and get it approved by somebody else who then has to get it approved by somebody else, which is a ludicrous way of working. “

Even Consumer Insights, who up to this point has been the most optimistic of the respondents, agrees that the climate is “challenging”.

“The climate, it’s tough. It’s hard, it’s hard to pick the winners, it’s hard to you know it’s hard to uncover the next big thing. It’s hard to prioritise it’s yeah and we’ve been burnt a bit lately and I don’t know whether that’s necessarily making us risk averse but we’re certainly taking our time in terms of you know the process now of working through what will be our NPD strategy going forward”

R&D also acknowledges that NPD is stifled at the moment.

“It’s just still we’re just tinkering along and just doing you know rotates and just maintenance stuff rather than getting in there and actually doing something that’s going to rock Australia.”

These comments on climate begin to uncover a lack of faith in the NPD process at FOODIS. It is evidenced throughout the interviews that the actual process of developing a new product once it has been decided upon is quite structured. However, it is not seen as being conducive to truly innovative NPD.
It is at the “front end” of the process that faith is wavering. GM R&D acknowledges the need to improve their idea generation process by incorporating consumer insights and then linking it to the stage gate process.

“I think there’s still a view that the NPD process is too bureaucratic … that’s one of the … actions that we’ve got at the moment is to actually overhaul now a whole front end ideation program and understand how it links in to the stage gate process. And actually move from quite an ad hoc approach of ideation and you know developing consumer insights … we want to have lots of ideas that you have to pick and choose …We’ve got a lot of work to do … There’s not that collaboration up front.”

Not surprisingly, Consumer Insights also acknowledges the need to incorporate consumer insights (hence her role) into the NPD process.

“Yeah the other area of frustration I suppose in around the use of consumer insights and consumer knowledge within the process. That’s an embryonic journey that we’re on at the moment in terms of giving people or arming people with tools and capability through training to be able to uncover penetrating insights, consumer insights that can be then used to springboard … opportunities from.”

Operations has faith in certain aspects of the process, but suggests that it is the lack of skills in the management of the project that impacts on his faith.

“I think they have faith at the type of level like the business case you know we’ve all seen the document and we’ve all signed it so we do have some faith in that. I think where we lose a bit of faith is in the actual execution/implementation of the project again so it goes back down to you know, is the artwork going to be approved, is it going to turn up on time, you know? …we all participate as team members and we all take on you know but I think there’s a bit missing of who tied that together overall.”

R&D shows the most faith.

“Yeah I think so it’s usually a pretty good process. Works for most cases.”

The level of perceived blame placing also seems to have impacted on the level of perceived personal risk.
“Yes, it’s a big one it is. I actually feel that to a certain degree there’s more risk in pushing things out then there is just playing it safe ... which is a shame.” (GM R&D)

**R&D** also concedes that there is a degree of personal risk and that it does impact on behaviour.

“There’s a degree of personal risk with people that sign off on documents ... I know there’s been cases where my manager’s been uncomfortable in signing things for a particular reason and then it get elevated up to her manager ... we were going to go out with this you know brand new great idea for the Asian market and now that’s pretty much been bumped on the head because my manager wasn’t willing to sign off on the concept and her manager wasn’t willing to sign off on a concept so now it’s gone back to just the basic ... rather than being this whizz bang thing.”

**Mgr R&D** agrees, suggesting that the level of perceived personal risk actually increases as you progress within the company. When asked whether people feel a personal risk she responds:

“The more experience people have absolutely ... I guess what’s happened is people got burnt so many times that you end up killing you know, you end up overdosing in documentation and you know having to tick boxes to say that I’ve spoken to somebody so I guess that’s where the trust falls down.”

Even **Consumer Insights** agrees that there is a level of perceived personal risk.

“Yeah good question. I would like to think that it’s a team carried risk but certainly I think people would feel a degree of personal risk as well, if it’s coming from their functional area.”

Further probing uncovers that although risks are considered individual not team risks, the benefits are shared by the team, rather than individuals.

“No it’s definitely not seen as a team risk and that’s where I suppose sometimes you don’t make decisions as a team and that is very prominent.” (Mgr R&D)

However when asked whether gains are “team wins or gains” as opposed to individual the responses are quite the opposite.
“No, that’s not individual ... it’s the team that actually does that.” (Mgr R&D)

Operations has a completely dissenting view. In line with his feelings in regards to blame placing on learning from his mistakes, he sees risks as team risks and gains as team gains. As was seen in INMAN, the level of organisational identification can differ substantially from what the more senior people believe to be true. It would be reasonable to assume that the significant changes within the organisation as well as the relatively short length of time that most people being interviewed have been with the organisation, that organisational identification would be quite low. However, GM R&D believes it to be high.

“I think most people identify... if you’re talking about externally [FOODIS] first.” (GM R&D)

It is not surprising that Consumer Insights agrees.

“Wow that’s a good question. I can only talk for myself actually ... I live and breathe the company so you live and breathe the brands you buy the brands when you’re in the supermarket. You know you become completely absorbed by the company I suppose. And I like that I feel like then I have a sense of belonging and that you’re giving something back and they pay me to do a job and I can buy the products and if I can talk about the company in a positive like to others that’s a good thing and talk to them about products that’s a good thing so ...Yeah I’m a [FOODIS] person “

Operations has been with the company the longest and as such should have the highest organisational identification. He also suggests identification with your division within the company (that is, dairy, juice, etc.)

“That’s a tough one. I would say personally I’m a [FOODIS] person that works in operations. But there is still ... definitely affinity with the part of the business that you work in absolutely.”

Mgr R&D has quite a different view, believing that most people identify more with their function.

“Theyir function ... because what you actually do you then put yourself in that boundaries of your R&D. “
R&D agrees with this view of a more functional identification.

“I don’t know actually. I’ve never really thought about that. I always think about myself as R&D but I work at [FOODIS].”

This is supported by the amount of loyalty perceived to be in the business. Again GM R&D sees loyalty to the organisation as quite high.

“I think because it’s a business that ... does care about people I think that you know it’s a business that has values and you know while I think we’re not there yet in demonstrating every one of those values to the best ability, I think we’re on the right track yeah, it’s a business it’s got huge opportunity and I think people see that ... there’s exciting opportunity in this business. And you know it’s such a new and an evolving business that if you want to be part of change then it’s a great place to be.” (GM R&D)

Consumer Insights also agrees that loyalty has a positive impact on behaviour.

“Yes it does actually and I think it makes you go the extra mile because you respect the entity that you’re working for and the people around you.”

In line with her perceptions on identification, Mgr R&D describes even the loyalty as being more functional.

I would say function first and then the organisation.”

R&D again agrees.

“I’d probably say first R&D only because if there was ever conflict with another group whether it be marketing or whatever, I think as a group R&D would stand together.”

Finally, after gathering evidence on all the related issues, the respondents are specifically asked about trust. The discussions on trust are particularly interesting. The nature of the company, having in recent years made various acquisitions requiring inter firm integration, has meant that there is little opportunity to develop any type of individual trust. Therefore, FOODIS should offer the best insight into the type of organisational issues that can impact on trust within project teams such as NPD. The initial responses to whether or not there is trust within NPD relate mainly to “competency-based” trust and are not particularly positive.
“Just to say you know as a blanket statement that yes there’s good trust in all those project teams, I think that’s that would be an untruth.” (GM R&D)

“It’s not that we think that each other’s dishonest it’s just that if you look at it trusting everybody knows the right decision I would say no.” (MGR R&D)

Probably one of the most telling comments comes from Marketing who says.

“I don’t feel there’s trust here in (this location) from the rest of the department or the R&D department or the legal department ... there might be a culture of not so much distrust but most likely (lack of) confidence you know.”

Mgr R&D believes that a lack of collective goal setting and lack of autonomy in decision making actually has a major impact on the level of trust within NPD.

“It’s a team that actually has trust and so what you’re actually doing is working together for the common goal. They don’t have a common goal at the moment, R&D have to develop a product, marketing have to get it on the shelf, sales have to get it in, manufacturing you have to make sure that it’s going to run their lives and you know it’s you need to work together so you can make the decisions together and highlight the risks. You know I was saying that we would probably hide risks or dampen them down if you were going to the group executive rather than going you know here are the risks this is what we’re going to do to actually try and reduce the risks; are you still happy and we recommend going ahead.”

She goes on to say that this lack of empowerment reduces trust even from a competency level.

“I think that at the moment they’re not trusting our quality of work which we’re doing.”

This is supported by Operations who believes there is a general lack of “competency-based” trust particularly in relation to marketing as the project leaders.

“I think they do trust each other you know quite implicitly however the wheels ... if they’re going to come off ... we all look to the marketers so they probably cop the most heat if you know something’s not going to plan. Because it’s their interpretation ... but they are also the project manager ... My opinion would be I have less faith that they’ve covered all the bases
understanding the workloads that they would have to properly manage let alone one product but multiple new products ... does it all fit together as they complete a project is that issue.”

**Consumer Insights** is the only respondent who maintains that competency-based trust does exist at FOODIS.

“You trust that they can do the right thing ... do their job and contribute ... You can’t be a passenger in these sorts of things because you are representing your function.”

Overall, these responses suggest that the level of competency-based trust is not particularly high at FOODIS. However, the purpose of this study is to look beyond the inter-personal trust issues to a broader organisational trust.

When asked specifically about “swift” trust, that is “if it’s a new person coming in, is there initial trust”, the responses are cautious.

“I think there’s generally initial trust you know ... Because I think there is a general recognition that we all need each other to actually get our jobs done. We have so many independencies in making projects happen, you know it’s just the business goal.” (GM R&D)

**R&D** also provides some insight into “swift” trust.

“For me ... they’ve got my trust until it’s been taken away ...Well there’s no reason to doubt so if they’ve got the task of doing a particular thing or I trust that they’re going to do it “

These responses suggest that even though trust in individuals’ competency may vary, overall organisational trust may be more positive.

**Operations** feels that trust can be improved by making the process more “transparent”.

“So even if you disagree to be able to come forward and say ...I don’t agree with this I need to collect some information and bring it back and be able to work people through it. I think that creates trust.”

**Mgr R&D** believes that trust will improve if perceived personal risk is lower.
“So you got to have that level of trust where people think well, if something drops it’s going to come back on me. It’s actually not going to come back on you it’s going to come back on the whole project.”

**GM R&D** feels that management need to lead by example.

“it’s important that the more senior people in the business you know actively promote and are visible to be working well with their counterparts because it’s very easy to get into you know a negative way of viewing another group.”

An interesting observation at FOODIS, as opposed to HEVIS, is that in this case R&D have almost no involvement with the customers as acknowledged by **GM R&D**.

“The R&D groups don’t tend to have a lot of involvement directly with our customers.”

**R&D** suggests that this may be changing.

“We in R&D we’ve started to ... the reason being is we’ve found over the past 12, 18 months we tried to launch products into those accounts under the private label brand and I guess communication gets confused once the message goes back to the sales person, oh we need it sweeter or we need it less sweet or whatever the outcome is. And then that comes back to us. I’m not sure what they meant by this but this is what we think they said and then the message gets a bit confused. So we’ve started directly communicating with them just to make sure we get it right the first time... just emails and phone calls.”

So how do all these factors impact on the actual behaviours of the people within NPD? We have already established that there is some conflict, though little competition. How is information shared between the functions? There appear to be no set rules as to the frequency of communication within the project team and as such the responses vary from weekly to monthly. **Mgr R&D** suggests that communication is not necessarily open even within project meetings. She largely puts this down to bad project management, which again is directed at marketing.

“I think the information which people think is relevant is shared but I think that people don’t know what’s actually relevant does that make sense ... it’s
not really shared you have to go and ask for numbers … I don’t think people actually know what shared is … I don’t think it is actually done on purpose I just think that people think that they’re not interested or it’s not relevant to them.”

Because of this, she goes on to say that many decisions are then made outside of the project meeting.

“It tends to be a lot of stuff is done outside the meeting one on one … I think it does actually matter because then if you’ve actually decided something in a meeting or even if there’s an issue, sales and marketing you know it’s a sales problem. It’s actually quite powerful to discuss that in a meeting …rather than just take it off line. “

Marketing, who is involved with the International division, has his own unique communication issues.

“Not enough face to face, one on one and even telephone based communication and we do most of our team meetings by telecon which is ok but it’s not perfect.”

He sees this as an issue for several reasons, one of which is.

“And it’s an easy way to give an order and instructions. Also an easy way to fob responsibilities so not happy with that. The communication could be a lot better.”

Even though Mgr R&D’s project teams are on site, she agrees that the formality of the communication process has become an issue.

“You’re not actually given the freedom just to go up and ask somebody a question or want a 15 minute chat it’s like oh right yes book a time.”

GM R&D also acknowledges that there are communication issues at FOODIS.

“You know we got a market saying it needs to happen by here and this is what it needs to look like, you know we got a technical person saying that’s really very difficult and we’re going to have to compromise, no, no this is what we need. And I think because the technical person has historically
always been able to pull a rabbit out of his hat marketers going; no, no this
is what I want…. You’ll be fine. I hear you but I don’t hear you.”

Only Consumer Insights holds the opposing view.

“Yes I think so, yeah I don’t see any people being you know turf protective
or withholding... And I think people feel empowered that they can say if
something’s not right or they don’t feel comfortable they’ll say it. You know
if they don’t think they can meet say that deadline of launch, well why can’t
you?”

She goes on to describe what she sees as effective communication.

“Creating an environment within project team meetings where people can
openly speak and give an update on their functional area or have the
opportunity for general discussion around the project and how it’s
tracking.”

All respondents agree that this would be “utopia” in regards to communication. GM R&D
actually offers a solution.

“Look I think that’s again it’s through individual coaching, but one of the
areas that again we’ve identified as a need as a competency need for
particularly the marketing and R&D groups is around project management
skills. So you know really help people understand well what does being part
of a team mean giving project team leaders or likely project team leaders
some tools.”

Operations also agrees.

“you need some good team leading skills.”

Even Consumer Insights concedes.

“It depends on the style the person that’s the project leader (has). I think
that dictates where the people engage and have that sense that they can
contribute. “

As well as communication, the other components of behaviour to be considered are conflict
handling and mutual accommodation. Conflict handling was discussed earlier where it was
implied that inter-functional conflict is usually managed either within the team or at a
functional heads level. The final behavioural outcome to be considered is mutual accommodation within NPD. The interview includes questions relating to how functions behave towards each other if one function requires information or assistance from another.

**Consumer Insights** sees the team as very “collaborative”.

> “Absolutely and could potentially offer up ‘well have you tried this’ or ‘what about this’ or, yeah it’s quite collaborative.”

**MGR R&D** has an opposing view, as seen in this response to a similar question asking how well functions support other functions who may be unable to meet a deadline, etc.

> “Not always particularly well. Yeah often it results in escalation and some recriminations.” (GM R&D)

This response again highlights the level of perceived risk within FOODIS.

When asked about the success of NPD overall, the responses are not overwhelmingly positive. Typically, **Consumer Insights** has the most optimistic view and even hers is not overly positive.

> “There are certain elements of it that we’re really good at. There are certain elements that we’re not so good at and there’s certain elements that we’re really bad at.”

**Operations** also feel that NPD success is above average.

> “Ok, give myself a good score on a scale of 1 to 10 with 10 being you know absolutely excellent and 1 being pretty poor. I’d probably put it at 6 ½ ... Look I think we had some great innovation and some new products and that’s part of our success now but to continue we’re going to have to get better.... We’re an easy target for people to come and take five percent here and two percent there and one percent there. And (it) really hurt us, so we need to be ahead of the game”

**GM R&D** believes they are average.

> “I’d have to give us about a five out of 10...I think we’ve got some of the basics in place. But there’s so much ... opportunity around clearly linking the strategy to the innovation program. And really driving the innovation culture so I give it a five out of 10 not because I think we’re absolutely
disastrous but I just see so much opportunity for us to be best in ... I think we're average.” (GM R&D)

Mgr R&D is even less generous.

“I don’t ... personally ... think we’re coming up with the ideas. But once again that’s a personal feeling and also we don’t actually focus. We’re trying to do too much ...we actually don’t focus on what the initiatives and really resource them up. You get the opinion if you’re not launching something that we’re not working.”

This is also supported by R&D

“I think yeah well I think going back to we don’t do any great blue sky stuff. So I think we probably aren’t so successful in my books. Because we’re just getting products out there that are we’ll make do.”

When asked how to improve NPD success, GM R&D talks about broad cultural changes.

“I think I would define it is we have a culture in our business that people are excited by New Product Development that they want to spend time on it, that they’re proactively coming up with ideas because they understand the business strategy, they understand where we want to innovate, they understand our consumers, they understand our customers ...success looks like we get some really big activities out there and they are successful in the eyes of our consumer and our customers. And make us lots of money. That’s the reality that’s what we need to do.” (GM R&D)

Mgr R&D also talks of the evolution of a more long term perspective for NPD.

“It’s got to come from the top ... We’re not good at actually showing our path to getting there because it’s like it’s all about here and now not like looking at ... five years ... and see what our steps are to get there ... you never have to get to the five years because of the changes but at least you get the start... and it keeps getting reviews so ... you actually evolve ... We just buy people.”

R&D’s response to how to improve the success of NPD provides considerable insight into the actual climate within NPD at the moment. This quote clearly depicts rivalry between the marketing and R&D functions, that she clearly feels adversely affects the success of NPD.
“I’d like to see marketing actually listening to R&D I find that to be a big problem if they actually started listening to some of our ideas which I think we do have some good ideas ... Just it’s just kind of the mentality of this organisation that marketing drive projects they make up what they want to do and R & D just services them. And that just seems to be the mindset, so we need to somehow change that.”

It is clear from these responses that one of Australia’s biggest food and beverage companies has up to this point relied more on acquisition and integration for its growth than on NPD. However, it is also clear that the respondents see it as essential that future growth has a more long-term focus such as successful NPD. The following analysis will aim to determine if this firm has a climate of trust that is conducive to NPD growth and success.

5.4.3 Analysis: Does a Climate of Trust Exist at FOODIS?

Consistent with the previous cases this analysis will utilise the evidence offered in the preceding section to determine whether or not a climate of trust exists at FOODIS. The analysis is divided according to the theoretical framework developed in chapter 3 and will consider the development of a climate of trust through the collective perceptions of the members of the NPD project team in relation to (i) their faith in management; (ii) faith in the NPD process; and (iii) their organisational identification. The management and process factors believed to influence these perceptions will be examined as will the impact of the climate of trust achieved on the collaborative behaviours of the individuals involved in NPD. The aim of the analysis is to offer support or otherwise to the four propositions arising from this framework (Table 5.2)

5.4.4 Faith in Management at FOODIS

P1: A high level of faith in management leads to a higher climate of trust within NPD

The first factor to be examined will be faith in management. According to the theoretical framework in chapter 3 the factors most likely to impact on the individuals’ faith in management at FOODIS include the nature of the rewards and incentives offered, their
tolerance for failure (blame placing), their conflict handling procedures, the priority given to NPD and their resource allocation. Importantly, uncertainty caused by structural flux, in the form of changes in NPD strategy, personnel and top management is also highly relevant in this case where there have been significant changes in all three due to a growth strategy largely based on mergers and acquisitions.

Many of the organisational factors relevant to faith in management represent serious issues within FOODIS and particularly within NPD. These issues start with top management. Although all the respondents agree that NPD is important “to keep growing and to maintain your number one status”, they do not feel that they are “very good at it” and are not convinced that top management necessarily share their concerns. Though management acknowledges “failure to deliver to our NPD growth requirement” as a business risk, respondents still perceive “a degree of impatience” from management and a focus on short term gains and “quick and easy wins” rather than long-term growth through successful NPD. This rather short-sighted approach may be attributed to the company’s significant growth in recent years from mergers and acquisitions, rather than more strategic growth through NPD.

These concerns are represented by the respondents’ perceptions on NPD priority at FOODIS. Again, they all agree that NPD should be a priority for the continued growth of the organisation. However, the general feeling is that the overall short-term focus of top management means that even though giving NPD high priority is what they might “say we’re doing”, other issues such as costs and product maintenance are still seen as “coming above” NPD. Mgr R&D voices these concerns perfectly in the following statement.

“They know it has to happen (and) I believe they think it’s a priority but I don’t think they know how to make it happen.”

This short term, quick gain approach to NPD is further evidenced when considering resource allocation. As a large, successful entity, resources are considered quite “fluid” at FOODIS. Despite this, several respondents comment on the fact that although product development is well resourced, the new products are not well supported after launch, leading to a “graveyard full of products that were launched and deleted probably within six months.” This again suggests a lack of “real” management support for NPD.
Conflict handling is another issue likely to impact on the overall climate within NPD at FOODIS. It is clear from the evidence presented that conflicts are most likely to be escalated to at least a functional level, rather than being resolved at the NPD level. This can be seen most clearly in the perceptions regarding blame placing. Both Marketing and R&D believe that blame placing does exist at least at a functional level. Marketing talks about blame going to the “head of that area” and Mgr R&D simply acknowledges that “obviously R&D will get blamed for technical failure”. R&D further supports this idea stating that it would be “my manager” that would get the blame. The only dissenting view comes from Operations who believes that blame placing is not an issue at FOODIS. The existence of blame placing at FOODIS is likely to reduce faith in management. However, the functional nature of the blame placing also has other implications such as increasing functional, rather than organisational identification. It will also impact on the perceived risk associated with various levels within the organisation. These issues will be discussed further later in the analysis.

As has been evidenced with all the cases to date, incentives are set at an individual rather than team level with a small percentage, if any, relating to their role within NPD. Marketing believes a significant NPD incentive would lead to a better functioning NPD climate. However, this opinion is not shared by all respondents. Another factor that could potentially have a positive impact on NPD is FOODIS’ rewards programme. Individuals or teams can be nominated for going “over and above”. All respondents acknowledge the programme, but do not necessarily relate it to NPD.
Table 5.17: Faith in Management and its contributing factors at FOODIS

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<th>Overall Faith in Management</th>
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<td>Contributing Factors</td>
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<td>Fair Resource Allocation</td>
<td>Resources are considered to be quite “fluid” throughout the NPD process</td>
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</tbody>
</table>
Evident from this analysis is that there are no positive contributors to faith in management at FOODIS. Support by top management is not seen to be particularly strong overall, with respondents agreeing that they still have a “quick and easy win” approach to growth which is not in synergy with the longer term growth strategy offered by new product development. Because of this their perceptions regarding NPD priority and the allocation of adequate resources to NPD are quite low. The functional nature of blame placing contributes not only to a decrease in faith in management but further impacts on several other aspects related to the development of a climate of trust and the desired collaborative behaviours that will be discussed later in the analysis. Rewards and incentives, though acknowledged to exist within the organisation, are not seen as being particularly relevant to NPD and have little impact on the behaviour of the individuals. Although the lack of NPD related incentives or rewards alone has been shown to have a minimal impact on faith in management and the overall climate at both INMAN and HEVIS, they are yet another contributor in this case to support P1 and deduce that there is a relatively low level of faith in management at FOODIS. This in turn reduces the likelihood of the development of a climate of trust.

5.4.5 Faith in the NPD Process at FOODIS

P2: *A high level of faith in the NPD process leads to a higher climate of trust within NPD*

According to P2, the next element to be considered in relation to the development of a climate of trust is faith in the NPD process at FOODIS. According to the framework developed in chapter 3, the most significant elements associated with faith in the NPD process include the degree of formalisation of the process, the type of decision making as well as their commitment to shared goals. External activities such as the amount of change within the NPD process and personnel are also contributing factors to faith in the NPD process.

FOODIS has a very structured and formal NPD process. It is interesting that this is the only case examined to date that actually has a structured process already in place, rather than feeling that they need one as is the case at INMAN, or in the process of implementing one such is the case at HEVIS. Although this structured approach is viewed as being effective in relation to the “back end” of NPD, it does not have any impact on the “front end”, where all respondents agree considerable improvement is required with almost all respondents seeing
the need to improve their “blue sky”, or completely new to world innovations as the most significant issue within NPD at FOODIS. Marketing suggests that two “streams of innovation” are actually required: one to do the incremental changes using the structured process that currently exists; the other for “radical innovation”. Consumer Insights also supports the need for improvement with idea generation suggesting a more “formalised process of capturing ideas”. The ultimate aim is to overhaul the front end and link it to the formalised stage gate process. GM R&D summarises this issue beautifully when she says:

“(If) we got the great ideas to start with … we can manage them effectively through the stage gate process, but are we just managing average ideas or are we managing great ideas?”

The structure is also seen as “too bureaucratic”, with a lot of “red tape” slowing down the process and subsequently “no quick decisions” being made.

“I feel like Penny Wong trying to get the emissions trading scheme through parliament, it’s that many signatories and people who need to sign on”.

(Marketing)

This further leads to minimal autonomy in decision making overall, with individuals in NPD project teams not feeling particularly “empowered”. Mgr R&D suggests that this lack of autonomy leads to people “second guessing” themselves rather than making decisions.

This also means that decisions are less likely to be made “collectively” at a team level. In fact, all respondents agree that the only collective goal in NPD is the launch date. However even this has a negative impact on the climate. In an organisation with considerable and “fluid” resources, the lack of resources allocated to launch and particularly post launch is seen as a significant contributor to the failure of new products and further evidence as to the short-term strategic focus and lack of priority given to NPD by management.

The “acquisition and integration” strategy for growth discussed earlier has also led to major changes in both NPD personnel and processes. This is not always viewed as negative as “you get a new lot of knowledge ... from new people coming in”. However, getting “a bunch of new people” injected into NPD is not necessarily conducive to faith in the NPD process as two NPD processes are brought together with “key departments suddenly not knowing the business
process ... in NPD”. These changes are also viewed as further contributing to slowing down an already formal and structured process.

Perhaps due to the amount of change within NPD, many respondents refer to the type of leadership as a significant factor in the success of NPD projects. Currently, all NPD project managers come from marketing. This impacts on the other individuals’ faith in the process as both R&D and Operations do not feel that they necessarily have the skills to be good project managers. Operations actually believes that separate “project people” should run the NPD teams. This creates conflict between marketing and almost all the other functions involved in NPD who believe that marketing “couldn’t cope” with another function heading the project. Not only are marketing as project leaders held responsible for the process but also for the conflict handling within the project team, with other respondents suggesting that a good “leader” can resolve issues within the team without having to escalate them to a functional heads level as sometimes occurs at FOODIS.

In summary, it is evident that although the highly structured NPD process is seen as efficient in relation to incremental changes in product development, it is also seen as a hindrance to creative thinking. It further reduces the speed and autonomy of decision making within NPD projects. This coupled with a lack of any significant collective decision making or goal setting and a lack of faith in the projects leadership suggests that faith in the NPD process is also relatively low at FOODIS which in line with P2 is not conducive to the development of a climate of trust.
Table 5.18: Faith in the NPD Process and its contributing factors at FOODIS

<table>
<thead>
<tr>
<th>Contributing Factors</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formalised NPD process</strong></td>
<td>A structured-formal stage-gate process currently exists. It is perceived to be effective in relation to the “back end” of NPD</td>
<td>The highly formalised process is seen as “too bureaucratic”, with a lot of “red tape” slowing down the process. It is not perceived to be conducive to “radical innovation” with one respondent suggesting the need for two streams: one formalised process for incremental changes; and one for blue-sky innovations.</td>
</tr>
<tr>
<td><strong>Autonomous decision making within NPD</strong></td>
<td></td>
<td>The “bureaucratic” nature of the process means that decisions cannot be made quickly and individuals do not feel particularly “empowered” to make decisions.</td>
</tr>
<tr>
<td><strong>Commitment to shared or “collective” goals</strong></td>
<td></td>
<td>The NPD project team is not responsible for decisions or goal setting. The only “collective” goal is launch date and that is traditionally under resourced.</td>
</tr>
<tr>
<td><strong>Changes to NPD process</strong></td>
<td></td>
<td>There has been significant change to NPD process brought about by mergers and acquisitions. These are perceived as slowing down the process even further as two NPD processes are brought together with “key departments suddenly not knowing the business process … in NPD”</td>
</tr>
<tr>
<td>Contributing Factors</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Changes to NPD personnel</td>
<td>Mergers and acquisitions have also led to significant changes in NPD personnel. This is perceived to be positive overall with “a new lot of knowledge ...from new people coming in”.</td>
<td></td>
</tr>
</tbody>
</table>

5.4.6 Organisational Identification at FOODIS

P3: A high level of organisational identification leads to a higher climate of trust within NPD

The third proposition relates to the individuals’ organisational identification. The framework proposes that the climate of trust will be higher within NPD if individuals identify more with the organisation or NPD team than with their functional areas.

The first thing to note is that identification with the company seems to vary according to position and function. **Consumer Insights** has the highest identification. She “lives and breathes the brands”. She has become “completely absorbed by the company” and says it gives her a “sense of belonging”. She is generally the most optimistic respondent and has the most likely prerogative to “tow the company line”. **GM R&D**, who is the highest in the hierarchy of the R&D respondents, also appears to have a strong identification with FOODIS and loyalty to the company as a whole and the “exciting opportunities” it offers. However, this does not continue through the rest of R&D with both **Mgr R&D** and **R&D** having more of a functional identification, seeing themselves as “R&D” first. Both **Marketing** and **Operations** suggest that identification is actually more divisional (i.e. juice or cheese) than functional where you “identify with the part of the business that you work in”. The range in perspectives evident here is suffice to conclude that there is significant variance in organisational identification at FOODIS, so that it cannot be viewed as high overall.

The size and scope of the business could also explain this lack of consensus regarding organisational identification. The merging of several businesses, their personnel and
processes means that there are fewer people who have spent many years with the company, particularly as it exists now. If the findings from INMAN and HEVIS prove to be correct, this could have a negative impact on organisational identification at FOODIS. Also, the diverse variety of products and brands owned by FOODIS makes it difficult for people to identify with a particular product or brand, which as we have seen at HEVIS can also be a positive contributor to the climate achieved. Instead, this leads to some people identifying more with their divisions, and others with their functions, making identification at FOODIS overall inconsistent.

Although organisational identification is difficult to define at FOODIS, previous evidence has shown that functional identification is not conducive to the development of positive behaviours within NPD (Barclay, 1991; Olson, et al., 1995; Fisher, Maltz, 1997). As such, it is important to note the specific factors at FOODIS that appear to increase functional identification. The first is the conflict handling procedures. As previously discussed, conflicts at FOODIS are often escalated to a functional managers level. This is likely to lead to increased functional identification as evidenced through R&D’s discussion regarding identifying with R&D first, particularly during conflicts with “marketing or whatever”, where she explains that “R&D would stand together”. A similar situation exists in regards to blame placing. It has already been determined that blame placing exists at FOODIS and is most prevalent at a functional level. This too encourages functional, rather than organisational identification as people try to minimise the impact of the blame placing on their particular function.

The examination of the evidence in this case leads me to believe that organisational identification is also relatively low at FOODIS. There is some suggestion that there may be a level of divisional identification as individuals identify with the part of the business that they are associated with, such as juice, cheese etc. However, there is certainly a level of functional identification particularly at the lower levels in the hierarchy. In this case it appears to be position in the hierarchy, rather than length of time with the company that improves organisational identification. Conversely, functional identification is increased due to the conflict handling procedures and blame placing at FOODIS that tend to escalate matters through functional lines. According to P3, this is yet another negative indicator for the development of a climate of trust.
Table 5.19: Organisational Identification at FOODIS

<table>
<thead>
<tr>
<th>Overall Organisational Identification</th>
<th>Relatively Low</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational Identification</strong></td>
<td><strong>Functional Identification</strong></td>
</tr>
<tr>
<td><strong>GM R&amp;D – 2 yrs with co</strong></td>
<td>Shows organisational identification in regards to the possibilities offered by the company</td>
</tr>
<tr>
<td><strong>Mgr R&amp;D – 3 yrs with co</strong></td>
<td>Sees herself within the boundaries of her function</td>
</tr>
<tr>
<td><strong>R&amp;D – 6 yrs with co</strong></td>
<td>Identifies with R&amp;D first, FOODIS second. She makes a particular point of suggesting that this is even more important in relation to conflicts</td>
</tr>
<tr>
<td><strong>Marketing – 3.5 yrs with co</strong></td>
<td>Has an identification that is definitely first to marketing, then to the DIVISION</td>
</tr>
<tr>
<td><strong>Consumer Insights – 2 yrs with co</strong></td>
<td>Has the most positive feelings regarding the organisation including a “sense of belonging”</td>
</tr>
<tr>
<td><strong>Operations – 19 yrs with co</strong></td>
<td>Feels an “affinity” with the part of the business he is working in, suggesting a more DIVISIONAL identification</td>
</tr>
</tbody>
</table>

5.4.7 Is there a Climate of Trust at FOODIS?

Based on the preceding analysis and propositions it would appear that following situations exist at FOODIS:

- Faith in management is relatively low with none of the organisational factors in place that are believed to impact on the development of a climate of trust.
• Faith in the process is relatively low despite a highly structured and formalised process largely due to the lack of leadership and autonomy within the NPD project team.

• Identification at FOODIS is inconsistent, with some organisational identification at the higher levels, some divisional identification as well as a level of functional identification.

These situations lead me to conclude that in line with the three propositions examined so far, the climate of trust is relatively low at FOODIS. Specific questions relating to both climates and trust within NPD are also asked in an attempt to verify these findings.

As discussed in chapter 3, individuals are not clear on the meaning of “climate” and as such struggle to answer a question specifically asking about the climate within NPD. The most significant responses to come from questions specific to the climate within NPD at FOODIS are that, as GM R&D puts it, “I think it borders on frustration”. This frustration stems from many areas within NPD. Mgr R&D feels “tension” in the lack of autonomy in decision making brought about by the structure of the process, which leads to jumping through “hoops” and “second guessing” yourself rather than taking responsibility. Consumer Insights simply describes it as “tough” and “hard” specifically in regards to having systems in place for uncovering “the next big thing”. Similarly, R&D want to move away from the “nitty gritty” and do something that’s going to “rock Australia”. Operations, though generally the most positive in relation to the ‘atmosphere” within NPD, also concedes that the amount of changes that have taken place means that working out where you fit in to “the larger picture can often get lost”.

The responses in relation to trust are similar. GM R&D believes that “as a blanket statement” saying that there is “good trust” within NPD “would be an untruth”. Marketing actually says that he does not feel trust at the current location and that though he would not describe the culture as one of “mistrust” there is a general lack of “confidence”. Mgr R&D has a similar perception as seen in the following statement.

“It’s not that we think that each other’s dishonest … it’s just that if you look at trusting everybody knows the right decision I would say no"
An important consideration in relation to trust is whether the responses indicate individual or organisational trust. As the framework developed for this study relates to the impact of organisational factors on the climate within the team, it is organisational trust that needs to be considered. As this is a difficult factor to identify, the interview asks questions relating to “swift” trust. This is particularly pertinent in this case where the pace of change means that few people have had opportunities to work together and therefore are unable to base their trust on previous working relationships. When asked specifically about “swift” trust, most respondents struggle to offer any support for it other than suggesting that they all need each other to make “projects happen” and that they therefore have “no reason to doubt” that “if they’ve got the task of doing a particular thing … that they’re going to do it”.

These descriptions actually sound more like individual competency-based trust, which is trust that people are capable of doing, or made to complete, the task they are accountable for. However, even competency-based trust is questionable in this case. Although Consumer insights suggests that a level of competency-based trust exists believing that “you trust that they can … do their job and contribute”. This is disputed by Operations who does not believe in the competence of the project managers (i.e. marketing) to “properly manage let alone one product but multiple new products”. This is further supported by Mgr R&D who suggests that other functions are “not trusting our quality of work”.

A further component of trust relevant to this study is the level of perceived individual risk or benefit associated with NPD. Perceived risk appears to be higher at FOODIS than at any of the other cases studied so far. There is definitely an element of “playing it safe” in all of the responses regarding the perceived risk associated with NPD. It also appears that perceived risk increases as you progress in the company.

There are a number of organisational factors that have already been discussed that impact on this perception. The first is the level of blame placing. It has already been determined that blame placing does exist at FOODIS and in fact is most prevalent at a functional level. This is supported by Consumer Insights who, while taking the “company” stance on blame placing commenting instead on the company “learning” from its mistakes, does agree that there is a “degree of personal risk” coming from your “functional area”. This could explain why perceived personal risk seems to increase as you progress through the company to a position in which you could be “blamed”. As a result, the functional heads are more likely to
“play it safe”, as they’ve “got burnt” before. *R&D* notes that this means that the person who “signs off on documents” is often “uncomfortable” which leads to new products that are “back to just the basic …rather than being this whiz bang thing”. Considering that the lack of really innovative NPD is one of the major issues at this firm, this is a worrying finding. The only dissenting view comes from *Operations* who believes that blame placing is not an issue at FOODIS and that risks are more team than personal. This suggests that these perceptions on personal risk are most prevalent in *R&D* and *Marketing* who as major contributors and leaders of the NPD process have a significant impact on the overall climate.

A second factor impacting perceived risk is the lack of autonomy in the decision making process. *Mgr R&D* believes that rather than making decisions within the team and highlighting the risks for the project, instead the risks are “hidden” or “dampen(ed) down” before going to the group executive for approval. She further states that because “you don’t make decisions as a team” the risks associated with those decisions are then perceived to be more personal.

The above analysis supports the view that many of the organisational factors previously considered have impacted on the development of a relatively low climate of trust within NPD at FOODIS.

**Table 5.20: Climate of Trust at FOODIS**

<table>
<thead>
<tr>
<th>Climate of Trust</th>
<th>Relatively Low</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Propositions</strong></td>
<td></td>
</tr>
<tr>
<td>Faith in Management</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>Faith in the NPD Process</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>Organisational Identification</td>
<td>Relatively Low</td>
</tr>
<tr>
<td><strong>Supporting Evidence</strong></td>
<td><strong>Positive</strong></td>
</tr>
<tr>
<td>Organisational (“swift”) Trust</td>
<td>No level of trust is consistently supported. There is even a lack of competency-based trust with some functions not feeling like their competency is trusted, while others do not trust in the competency of others.</td>
</tr>
</tbody>
</table>
Supporting Evidence | Positive | Negative
---|---|---
Perceived Personal Risk | | The lack of autonomy associated with the NPD project team means that decisions are not made on behalf of the team, leading to perceptions by the decision makers that the risks are personal rather than team risks. This leads to risk averse behaviours as decision makers are more likely to “play it safe”.

The nature of blame placing and conflict management being escalated to a functional managers’ level means that there is also a “degree of personal risk” coming from your “functional area”. This increases functional identification.

5.4.8 NPD Outcomes at FOODIS

**P4: A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.**

The objective of this study is to expand previous research and shift the focus from “integration” as a desired outcome of cross-functional relationships within the NPD process to “collaboration” and collaborative behaviours such as bi-directional communication, mutual accommodation and functional, as opposed to dysfunctional conflict. Therefore, it is these collaborative behaviours that will be considered as well as overall perceived NPD success.

It is evident at his point that a climate at FOODIS is not a trusting one. The purpose of this section is to determine what impact if any this has on the behaviour of the individuals involved. The behaviours to be considered are the collaborative behaviours of bi-directional communication, mutual accommodation and functional, as opposed to dysfunctional conflict and finally perceived NPD success.
There are a range of opinions on communication within NPD at FOODIS. *Marketing* suggests that “communication could be a lot better”. *Consumer insights* believes that “people feel empowered” and that “they can say if something’s not right or they don’t feel comfortable”. Whereas *Mgr R&D* believes that “a lot of stuff is done outside the meeting” and that because of this people are unclear on what information is “relevant”. The result of this is that information is “not really shared you have to go and ask for numbers … I don’t think people actually know what shared is”. *Marketing*, as part of an International division has his own unique communication issues, with much of his communication being “email based” with not enough “face to face” or “even telephone based” communication. *Mgr R&D* also sees this as an issue with communication even when it is within the same building. She believes that you no longer have the “freedom to just go up and ask somebody a question”, instead it’s “oh right yes, book a time”. These responses suggest that *GM R&D*’s interpretation is probably the most accurate for FOODIS where communication “varies significantly” depending on the project. Though she also goes on to suggest that historically the inherent conflict between R&D and marketing results in communication where “You’ll be fine. I hear you but I don’t hear you”. This certainly suggests that communication is not particularly bi-directional overall at least between these two functions.

Views on mutual accommodation also vary between respondents. *Consumer Insights* again believes that the teams are quite “collaborative”. *Mgr R&D* again has a contrary view and when asked how individuals respond if functions need help to reach a deadline etc., she responds “not … particularly well” and suggests that it often “results in escalation and some recriminations”. *Marketing* also concedes there is “no incentive to cooperate”. It seems, according to the majority of respondents, that mutual accommodation is not evident at FOODIS.

It is not surprising that this slow, bureaucratic process, lack of decision making power and risk of personal blame leads to some “frustration” within NPD. It is evident from most responses that there is considerable “friction” as projects are perceived as going “round in circles”. There is also evidence of a “reluctance” to be involved in discussions, with people unwilling to “give their opinion” for fear of being “shot down” or “constantly ... beaten up in the process”. Some of these conflicts stem from an issue that has been seen in all the cases to date, that is that operational performance is often at odds with the requirements of NPD.
However, in this case there is also considerable conflict between the other functions involved in NPD and marketing.

The issue to address next is whether the conflict is functional or dysfunctional. It has been established that the conflict is sometimes escalated outside the project team to the functional heads. These functional heads express high personal risk and are therefore generally cautious in their responses and behaviours. This would suggest that conflict within NPD at FOODS is not particularly functional as it is most likely to lead to the removal of decision making from the NPD project to a higher, more cautious level in order to minimise the personal risk involved.

The perceived success of NPD is probably the most telling, with no respondents believing that FOODIS is particularly successful in regards to NPD. Even Consumer Insights who has the most optimistic view concedes that there are “elements that we’re really bad at”. Most of the others rate their success at fairly “average” and even offer grades of 5 and 6 out of 10. All respondents agree that they need better ideas in order to generate the kinds of new products that would be considered particularly successful.

Overall, it would appear that collaborative behaviours are not particularly strong at FOODIS and NPD success is considered average, supporting P4.
Table 5.21: Collaborative Behaviours at FOODIS

<table>
<thead>
<tr>
<th>Climate of Trust</th>
<th>Collaborative Behaviours</th>
<th>Relatively Low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Bi-directional Communication</td>
<td>It is perceived that communication “varies significantly” depending on the project. There is a level of informal communication that is seen to hinder information sharing resulting in individuals having to “go and ask” for information. Even this is considered difficult as they feel that they can’t “just go up and ask somebody” for information. The inherent conflict between R&amp;D and marketing also results in communication where “You’ll be fine. I hear you but I don’t hear you”.</td>
<td></td>
</tr>
<tr>
<td>Mutual Accommodation</td>
<td>Little evidence of mutual accommodation with “escalation and recrimination” described as possible if a particular function does not reach a deadline. There is not considered to be any incentive to cooperate.</td>
<td></td>
</tr>
<tr>
<td>Functional Conflict</td>
<td>Conflict due to evaluation criteria and between marketing, as project leaders and other functions. Conflict often escalated to a functional managers’ level. This is likely to lead to the removal of decision making from the NPD project to a higher level to minimise the personal risk.</td>
<td></td>
</tr>
</tbody>
</table>
5.4.9 FOODIS Summary

Table 5.22: Findings from the FOODIS analysis

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1: Level of Faith in Management</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>P2: Level of Faith in the NPD Process</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>P3: Level of Organisational Identification</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>Climate of Trust</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>P4: Level of Collaborative Behaviours</td>
<td>Relatively Low</td>
</tr>
</tbody>
</table>

The first impression of FOODIS is that the company is new and exciting. The interviews take place in their brand new offices, in their brand new building in a new and emerging urban centre. The appearance of the building and offices is vibrant and dynamic with many communal spaces, with company branded refreshments readily available, scattered throughout the building. It was initially surprising therefore when the responses began to show that one of the key issues at FOODIS is the need for a more dynamic, innovative approach to NPD. Perhaps this case is an example of “all that glitters is not gold”.

A key issue at FOODIS is the amount of structural change. A growth strategy of acquisition and integration over recent years has led to multiple changes in top management, as well as changes in NPD personnel and strategy. However, other cases analysed to date have shown that change alone does not have a negative impact on the climate within NPD. As the changes at FOODIS have been brought about by management’s commitment to “acquisition and integration” they are not perceived as support from top management of NPD. The continuous integration of processes decreases the overall faith in the NPD process. The integration of personnel from new and varied businesses leads to lower organisational identification, all of which are negative contributors to the development of a climate of trust.
One of the key observations from the evidence is the level of “frustration” felt within NPD at FOODIS. All respondents, barring Operations describe a “frustration” with some aspect of the process. GM R&D actually uses it to describe the climate. Marketing believes that the blame placing mentality grew out of “frustration” with the lack of innovation and success within NPD. Mgr R&D believes the “frustration” is caused by the lack of autonomy in NPD and also that it causes some of the conflict. Consumer insights is “frustrated” by the lack of process for idea generation and management, which again relates to the level of innovation within FOODIS. Finally, R&D finds the general lack of cooperation between functions “frustrating”. As all of these components are aspects that are thought to affect the development of a climate of trust, it is not surprising to find that the climate of trust within NPD at FOODIS is low.

A further interesting observation is that where the other cases analysed to date see the benefits of more structure in their NPD process, it is actually viewed quite negatively at FOODIS. GM R&D believes that the formalised, stage gate process is seen as too “bureaucratic”. Mgr R&D suggests that her lack of faith in the process stems from not being “brought in at the front” of a project and Operations feel that the lack of project management skills lessens his faith in the “actual execution and implementation” of an otherwise reasonable process. Only R&D, with her scientific background, has faith in the very structured process that currently exists at FOODIS.

It is evident from all the responses to the questions on NPD outcomes, that project management is seen as an issue at FOODIS. It is mentioned as having a negative impact on communication, cooperation, conflict and even perceived success. This is particularly targeted towards marketing, who concedes that teams feel “conflictual”. Although project management is not specifically examined in the previous cases studies, the importance of project leadership has still been noted through either the control of the MD (at INMAN) or the addition of a dedicated NPD resource, or NPD Manager (at HEVIS). This suggests that project management may be a significant factor in the development of a climate that is conducive to collaborative behaviours and NPD success.

This analysis shows that companies who may appear to be the biggest and most successful are not necessarily the most innovative. FOODIS has grown to its leading position through the acquisition of small, innovative companies. However, it does not have the organisational
factors in place develop the kind of climate necessary for the continued innovation and thus growth of the business.

Further potential implications of this analysis are the impact of company size on the climate of trust. This is the largest company in my data set and although it has some unique characteristics I do not have enough cases to compare the results to ascertain whether or not it is related to its size. This is also the only company within my data set with a number of women involved in NPD. This is another aspect that may require further research but could not be examined due to the limitation of my data set.
5.5 Case 4 (BUILDIN)

5.5.1 Description:

Case 4, to be known as BUILDIN, is Australia’s leading manufacturer of building products such as plasterboard, plaster, cornices and other materials, tools and accessories. Although they sell directly to the consumer through major hardware and building material retail outlets, the majority of their sales is still business to business. They operate around 100 “trade centres” to supply their products to professionals within the building industry. The products tend to be very high in bulk and low in value, making it difficult and expensive to transport them. As such, they tend to have quite localised production and distribution with a very small percentage of their business going to export. The export that does exist is mainly to New Zealand and Asia. They employ approximately 850 people, with annual revenue of approximately $450 million per year.

BUILDIN is a division of one of Australia’s largest building materials companies. It has annual revenues of over $3 billion and employs approximately 7,000 people throughout Australia, New Zealand and Asia with a history of over 150 years in Australia. However, much of the company’s history has been with a commodity type product, which behaves quite differently in the market place to building products. This has created some confusion within the company as to the future direction of its various divisions and the company as a whole.

There is a reasonable pipeline of new product developments at BUILDIN with up to eight projects under way at any one time. These range from “incremental” changes to existing products to new to world products. New products are predominantly brought about through consultation with opinion leaders in the area, showing that NPD is mainly market driven. Their position as market leader has come about as much by the lethargy of their competitors, who are all content to allow BUILDIN to provide the innovation for them to copy.

It is not unusual for cross-functional teams at BUILDIN to be located in different areas. Most of the marketing people are at a different location to R&D and operations are dispersed across several manufacturing sites throughout Australia. There was an interesting mix of people working on new products at BUILDIN with six being interviewed for this case study. The Manager of New Products and Technology, though he had been with the company for 36
years was still passionate about NPD. He began his career as an engineer. He then led the concept of having a market development team to re-engineer the NPD process at BUILDIN. During this time he completed an MBA which he says helped him to gain a better insight into the importance of customers and the market place and a more strategic approach to NPD overall. Although he oversees all NPD projects at BUILDIN, he is not actually part of the project teams. The project managers are usually from marketing. The National Product Manager (Marketing) is a relative newcomer to the company having worked there for only 7 years. The National Technical Manager and Technical Officer have both been with the company for around 40 years. The National Technical Manager was the only person in all four cases who would not agree to me digitally recording the interview. As such, the transcript of his interview is less detailed than the others as only major quotes and insights were recorded. The Senior Research Officer (R&D) has been with the company for sixteen years and was particularly candid. The Operations Manager had been with the company for the shortest amount of time and was also one of the shortest interviews and was difficult to draw information from. He does not see himself as part of the core new product development team, as he is only brought in at various stages of a project. He defined NPD as 1-2% of his role in the organisation. He has a fast moving consumer goods (FMCG) background so does not find NPD in this industry particularly arduous.

Table 5.23: Individuals interviewed for BUILDIN case study

<table>
<thead>
<tr>
<th>Position/function</th>
<th>Name given to function for Analysis</th>
<th>Time in Role (years)</th>
<th>Time with Company (years)</th>
<th>Number of NPD projects involved in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager of New Products and Technology</td>
<td>NPD Mgr</td>
<td>9</td>
<td>36</td>
<td>“dozens”</td>
</tr>
<tr>
<td>National product Manager (Marketing)</td>
<td>Marketing</td>
<td>1</td>
<td>7</td>
<td>4 launched/4 in progress</td>
</tr>
<tr>
<td>National Technical Manager (R&amp;D)</td>
<td>Mgr R&amp;D</td>
<td>10</td>
<td>40</td>
<td>“many … scores”</td>
</tr>
<tr>
<td>Technical Officer (R&amp;D)</td>
<td>Technical</td>
<td>25</td>
<td>44</td>
<td>15-20</td>
</tr>
<tr>
<td>Senior Research Officer (R&amp;D)</td>
<td>R&amp;D</td>
<td>15</td>
<td>16</td>
<td>10 “ish”</td>
</tr>
<tr>
<td>Operations manager</td>
<td>Operations</td>
<td>21 months</td>
<td>21 months</td>
<td>3</td>
</tr>
</tbody>
</table>
5.5.2 Gathering the Evidence

This section will discuss the evidence gathered through the interviews. In line with the protocol used in the previous cases, each of the interviews will be discussed following a set format, delving first into organisational factors as they are believed to be the antecedents to the individual perceptions that impact on the climate of trust and the behavioural outcomes that are achieved. The analysis of the findings from the evidence will then take place in the following section, 5.5.3 to determine whether a climate of trust exists at BUILDIN.

All interviews began with the generic question, “If you could change anything about NPD, what would it be?” In this case, the answers to this were quite varied and often specific to the individual’s function. However, they did all relate to the process and the need for a more collective, collaborative approach to NPD overall. It is not surprising that NPD Mgr approached this question from a business perspective, suggesting that they need to improve “the integration of the business plan”.

“I think the biggest thing I would change would be in the business planning, at the very front end about defining who we are and what we are aiming to do. As far as the mechanics of the process, I think that would flow from that.

He goes on to explain some of his concerns with the current situation where a “solo” mentality exists, and the need for a more “collective” approach to NPD.

But I think of the issue we have, much of it is about a bit of a solo mentality in our business which arises from people having fairly specific individual goals, which relate back to a business plan which promotes that ...so that’s the area that I have been ... giving our senior managers feedback on when they have asked for it ... improving the integration of the business plan ... at the moment it is compromised a bit by a plethora of focuses. “

The issue of needing a more integrated approach to NPD is supported by R&D who concedes.

“Ok I don’t think that it’s anywhere near as much collaboration as there should be ... So you tend to miss out on a lot of things that you can use you know that you can share.

Marketing sees the biggest challenge facing NPD at BUILDIN as a more personal one.
"Authority to sales and marketing as opposed to operations ...operations have the ability and the authority to make a fundamental change to the product without consulting sales and marketing, which is incredibly frustrating because they have a different view of the world."

As the company is now moving to a more market driven approach to their business, marketing are seen as the drivers of this change. This has led to further frustration for Marketing who believes this has not yet filtered through to the rest of the people involved in NPD.

"I am supposed to be the conduit between the market and operations, so finding out what the market wants and then comparing that to what our capabilities are and sort of meeting somewhere in between so it’s mine, and also have a very good relationship and very good communication channels with the sales team so it should really be the product manager who makes that call in my view. But it’s not and I’d love to change it."

Operations shares a similar frustration with Marketing. When asked what he would change he responds,

"Information earlier ... from the team, the marketing team or the development team and that’s about being able to translate a concept of a lab developed product into what happens on the line, it is quite different ...I am consulted when we get closer to be ready to run it on the line or on the mixer or whatever. So when the practical implementation starts."

Technical had the most simplistic response to this question, suggesting that the process needs to be simplified.

"Perhaps to simplify it a bit, we have a fairly detailed procedure where we sort of work out the marketing and the senior people work out a development and procedure and we go through each of the steps to make sure that we cover all our bases, sometimes it gets fairly involved and time consuming. I guess overall it would be better if we could simplify it a little bit to reduce the time involved."

Mgr R&D was the most satisfied with the process, suggesting that it was “not a bad one”. He saw the major issue of concern as being project managers needing to “stay on track ... or being kept on track by other members”. It is clear from these initial statements that there are
issues in NPD at BULDIN that impact on the level of collaboration achieved. As the gathering of evidence continues, the organisational factors that affect the NPD process and the perceptions of the individuals involved in it will be examined in more detail.

As the individual with the broadest perspective, NPD Mgr seems the most logical starting point for gathering evidence in this case. He believes that the importance of new products is changing within the business. Where operational excellence was once the key “asset base” of the business, as the technology matures and skilled people move between businesses, it is no longer seen as a point of differentiation, allowing new products to take a higher profile. This could explain some of the rivalry between operations and marketing, as old ways make way for the new.

Marketing supports this view, and further suggests that their recent change of General Manager has facilitated the change to a more market focused business.

“We’ve got buy in from our General Managers and our Senior Management that the way to move our business forward is through innovation. We’ve got feedback from the market that our products have become commoditised and hence we need to do something to kind of move away from that.”

Although all respondents agree that the current management team is trying to move the company in a new direction, they are not all convinced that it manifests itself into support for NPD and NPD priority. Mgr R&D believes that the recent change of General Manager has reinforced the priority of NPD in the organisation. Technical is perhaps the most positive respondent in regards to management support and NPD priority.

“Yes there is quite a strong management support … it is one of the most important priorities in the business … the most recent changes in senior management and CEO has improved the outlook for research and product development.”

NPD Mgr is not quite as optimistic. He believes that top management are “enthusiastic” about NPD.

“There is certainly a great deal of interest in new product development and enthusiasm for it, right from the top of the company down, whenever we do anything of interest it tends to be applauded and embraced greatly.”
However, he also concedes that their history in commodity type products means that they still have somewhat of a “short term” perspective in regards to the business.

“But at the same time there is an underlining agenda which kind of says well that is all fantastic to have that as well but what’s the result for this month.”

**R&D** feels quite strongly that management maintain too short-term a perspective to support true new product development.

“I think the biggest priority in the business is getting the sales. The thing is general managers... tend to have terms nowadays and the terms are usually reasonably short. They don’t want to be waiting on projects that are going to become fruitful for the next life ... **They are focused on themselves, they are focusing on short term strategies, they are focused on sales, they are not focused on New Product Development.**”

**Operations** has a more pragmatic view regarding the priority of NPD. He has been with the company for the shortest time so has less insight into the changes in importance and priority that the other respondents have.

“It sits at the appropriate level in its priority ... it is not down the bottom, it is not up the top but it is at the right spot, where it should be”.

As a result of this change to a more market driven approach, **Mgr NPD** concedes that marketing are now mostly responsible for idea generation within NPD as they have the closest relationships with the market place as well as the ability to foresee the market implications.

“In terms of being able to understand what’s happening four to five years out, it has been more marketing people talking to leading architects and those sorts of people.”

As such, they also take a key role in NPD within the organisation.

“**Typically at the moment most of the project management is a marketing person who is leading it ... basically because it's ultimately something of value proposition and we want to deliver it to the market, so it tends to be driven or led by marketing person**” (Mgr NPD)

Only **Technical** suggests that both marketing and technical development dominate NPD.
Under the old “regime” new product development was largely driven by R&D. This change in “leadership” has created a number of issues within NPD. The first suggestion that this may be an issue at BUILDIN is in the Mgr R&D’s initial response to what he would change being to ensure that the project leaders (marketing) “stay on track”.

**Operations** gives the strongest and most candid opinion of his entire interview in regards to this issue. He believes that although marketing are the right function to “lead” NPD, there should be a separate “project manager” to manage the “details” of the project.

> “I think new product development is appropriately handled by marketing but I think the project management side aspects ... you should get a project manager in to do it”

He goes on to explain how NPD would work under this structure,

> “the marketing people would still have control of the whole of the process, developing the concepts and understanding what happens in the market, why this product is appropriate ... (the project manager) would manage the interfaces between technical and make sure that technical has got this done on time and make sure this equipment has arrived on time and make sure that this marketing report is completed on time”

Mgr NPD concedes that the amount of change in top management has impacted not only on management support and prioritisation of NPD, but also on the NPD process at BUILDIN. The current system is a fairly structured stage-gate approach. However, the changes in personnel and strategy at a management level have still made an impact.

> “configuring the planning process has probably a twig for every general manager we have had for the last ten, well since 97, since 97, we have churned over general managers at a fairly rapid rate, each of them is generally led to ... a change in the way that new product development is planned.”

As a result, the NPD process at BUILDIN is seen as relatively new and evolving. In fact, Mgr NPD concedes that there is still a limited understanding as to the mechanics of the new process at this point.
“...there is a fair amount of interest in the process but I don't think there is still absolute acceptance of what the responsibility is to actually approve a project for development.”

Marketing agrees. He suggests that the new approach to innovation and NPD at BUILDIN has not filtered down through the business as yet, which has many implications for the NPD process.

“I don’t think it’s fully accepted in fact I know it’s not ... it hasn’t yet filtered through the channels as much as it could. I think at a very senior level there’s beginning to be more acceptances but I’m not sure that that acceptance is filtered down the chain as well as it should.”

These continuous changes to the NPD process have also had a negative impact on the respondents’ faith in the NPD process at BUILDIN. It is not surprising then that there appears to be limited faith in the NPD process at BUILDIN.

“No they don’t have faith. Well the core team does but the people outside don’t because they don’t really know it.” (Marketing)

Mgr R&D agrees that there’s a “degree of ignorance” in regards to the NPD process and that this does impact on the level of faith. He concedes,

“When you know the process, you have faith”.

Both R&D and Technical do not support this view and when asked about faith in the process responds positively,

“The actual process, yes I don’t think we could work without it.” (R&D)

“It is more sort of a planned development procedure. Whereas in the past it was a bit less structured a bit less planned ... I think the current system, the newer system works better.” (Technical)

Most respondents also agree that although the process is quite structured and formalised, there still remains a certain amount of autonomy in the decision making between the “gates”.

“I suppose as long as the scope, I mean the scope does get signed off in terms of the what we are aiming to achieve, the how we are going to do it, is absolutely freedom for that.” (Mgr NPD)

“People can make decisions within certain boundaries.” (Mgr R&D)
“When it comes to the nitty gritty yeah I can make whatever decision I want.” (R&D)

“Most individuals have quite good autonomy in their own area and come to an overall development decision.” (Technical)

“Within my level of authority, yes. So aspects that impact on the plant and how it is made, when it is made, that’s all up to me.” (Operations)

**Marketing** does not have the same perception regarding the team’s autonomy. He suggests that the stage gate process used has resulted in rather centralised decision making. This is likely to be a result of his frustration in forging his position as “leader” of the NPD process.

“we can’t make any decisions unless the Senior Management ... team signs off on them ... we can make a decision to do the preliminary investigation we then go into development but to go into development we need approval from the Senior GTI team.

A further NPD process issue relates to the evaluation criteria used in relation to the individuals involved in NPD. **Marketing** believes that the lack of NPD related evaluation criteria means that the teams are not working towards the same collective goals.

“It comes back to what they’re measured on. The operations guys are measured on factory variances so they’re given a budget of how much they’re allowed to spend and overs and unders are what they’re measured on ... The problem is that’s counter to (new product development)”

**Mgr R&D** agrees that the evaluation procedures for each function impact on their ability to work collectively on NPD. He believes that KPI (Key Performance Indicators) that are new product specific should be incorporated into the process. Under the current system, only the operations manager has a new products KPI and that is worded as “**the support of sales/marketing**” rather than being linked to successful product development. As such, the operations functions feel that the other NPD project members don’t care whether their “efficiencies are compromised”.

“If yours (KPI) is screwed up in the process ... that’s your problem.”

This issue further impacts on their support of NPD.
“They do it to avoid ... negative implications rather than for the positive implications.”

As many of the functions involved in NPD don’t have a clear understanding of “what you’re going to get out of it”. He believes that the resultant attitude is,

“People in operations are being used by people in marketing.”

R&D also agrees that it is important for all members of NPD to have a common goal.

“I think to work as a team you need to have a common aim. If you don’t... then everybody’s working in a different direction.”

In light of the evaluation criteria appearing to be more divisive than collective, the next round of questions focus on whether any rewards or incentives are offered to encourage collaborative behaviours or NPD performance. All respondents agree that there are no reward systems in place specific to NPD or the preferred behaviours. Mgr NPD actually believes that a specific NPD reward or incentive could be detrimental to NPD as a whole.

“I think there would be a lot of sort of mistrust as to what the basis of that was going to be.”

He goes on to explain that there are too many people involved in NPD to be able to single any out for rewards.

“It is difficult to have a reasonable recognition just for that group when in fact success will be a consequence of the whole sales force embracing it and the manufacturing people, all those people would otherwise put up obstacles.”

R&D believes that a reward for NPD or working well together would be a great incentive.

“I think it would for sure ... people at research don’t value themselves any more, they don’t value themselves or the research because the company doesn’t value it.”

Technical also believes that a new product incentive would improve the NPD process by encouraging people to be more productive.

“That is probably ... part of the business that could be improved, maybe better incentives for new ideas... I think that would assist, yes. Keep the meetings more productive.”
Marketing has mixed feelings on the matter. On one hand he believes that incentives and rewards would motivate people to think more about their contributions to new products.

“I don’t believe they’re given the recognition that they deserve and ... because the recognition is not there they don’t actually go and do it.”

He further believes that it would encourage desirable behaviours.

“I think we could do with a lot more cooperation and collaboration and anything that would ... kind of reinforce good behaviour would be good but ... It doesn’t happen.”

On the other hand, although he concedes that the differences in evaluation criteria between the individuals involved does impact on the level of collaboration within the group, there may also be negative implications of specific rewards or evaluation systems for NPD.

“I think you’d add an extra level of bureaucracy to the... table. I guess why I say that is because if I’m telling you that you’re now 5%, 10%, 15% whatever the number is of your KPI has come from New Product Developments you’re going to want to sign off from whatever the New Product Developments are ... it could just draw the process out dramatically”

Mgr R&D was the most cynical in regards to rewarding collaborative behaviours.

“You get to keep your job.”

In regards to resource allocation for NPD, all respondents agree that resources are readily made available as long as they are justified. Mgr NPD said that issues with resource allocation arise from the individuals involved in NPD projects not having a clear understanding of what is actually needed. This again refers to the lack of collaboration he feels exists between functional specialists.

“I think the short coming is where there is a lack of collaboration about what the resources are. Whenever we have been clear on what the resources need to be so far ... we haven’t had any difficulty. Well, either the project hasn’t gone ahead because no, we can't have the resources, but we haven’t compromised the project to sort of say well yes, you can do it, but you aren't going to get any money.”
Marketing agrees suggesting that many NPD projects are not well resourced due to a lack of understanding at the top management level of what the project means to the business and what is actually required. He too believes that once the project needs are specifically dealt with that resource allocation is sufficient.

“We have gone to the Senior Management team and said it’s worth this much to the business, there’s this much risk and we have actually forced the other people to do that for their projects ... the solutions we come up with is far and away better than anything we could have imagined, so it worked.”

Mgr R&D does not share their concerns suggesting that Management is open to granting resources, even when there are changes to the original plan as long as they are justified. He concedes that this is a positive change brought about by the most recent management team as previously you were “scared” to ask, so resources were “poached” from other areas. Technical and Operations both feel that resources are sufficient.

“One we put forward a proposal and senior management accepted it is a good idea, they tend to agree with the funding quite adequately”.

(Technical)

“Usually the right amount of funds are allocated to do something.”(Operations)

One of the most significant issues within NPD at BUILDIN appears to be the level of conflict that exists between the functions, particularly marketing and operations.

“There is a lot of conflict. I don’t think ...generally we work together very good as a team.”(R&D)

Mgr NPD acknowledges that it is mainly between “technical” functions and “marketing”.

“... typically a technical person will argue for let’s have the best solution, technically, and the person in marketing will say I don’t really care, as long as I can launch it next month. So that will cause some conflict.”

Mgr R&D also acknowledges the “angst” between operations and marketing.

It is interesting to note that Operations, even though acknowledged as one of the more significant players regarding conflict, does not respond accordingly. This may be due to his generally more pragmatic approach to the interview questions.
“There is some tension but it is not strong conflict.” (Operations)

Assuming that the majority of respondents are correct in their assessment of the level of conflict between the functions, they were then asked to discuss the conflict handling methods employed at BUILDIN. Marketing suggests that it is not usually handled well at a project level. As a result NPD conflict situations are often escalated to a higher level, not just to the Manager of NPD, but actually to the functional managers of the people involved and often to the General Manager.

“It will go to management and it will go higher but the problem with that is if it goes higher the same thing happens but at a higher level so it goes to my manager who is the General Manager of Marketing and it goes to his manager who’s the General Manager of Operations and my manager and his manager have the same tit for tat so we get no further”.

R&D agrees that conflict is handled poorly.

“It’s managed very poorly because ... there is a lot of people ... and they use every conflict to get their way ... Everybody is looking after themselves”.

Operations also concedes that it “sometimes” has to move up to a management level. Only Technical did not see conflict as an issue and believes that it is handled well at an NPD project level.

It is not surprising then to note that these situations can sometimes lead to blame placing. Although Mgr NPD does not feel that there is blame placing. This sentiment is not shared by other respondents within the project team.

“I think there is blame placing.” (Marketing)

Even Technical, who is overall the most positive respondent concedes that there is blame placing

“but it is usually a bit indirectly ... maybe a bit of talking behind the back a bit.”

Operations also acknowledges that it exists as “part of normal business life”. Because of this view, he does not believe that it impacts on peoples’ behaviours.

“It’s not a strong part of the culture, it is more about what are we going to do to fix it, there is some blame.”
**Mgr R&D** is quite candid in regards to blame placing, suggesting,

“there has been finger pointing ... Not many people stand up and say ‘I stuffed up’ ... more ‘he stuffed up.’”

He feels that his has a significant impact on the level of personal risk that is felt. This, in turn makes people more guarded as they feel that they need to be prepared to defend themselves or “protect their backside”.

“not a lot of incentive to take risks on behalf of the project .... People more conservative.”

**R&D** supports this view. In regards to blame placing he believes that,

“when you do something and make mistakes you get punished for that ... you tend to cover yourself whenever possible.”

The goes on to say, that the best way to minimise this risk is,

“when you don’t do anything you don’t make mistakes ... One of the GM’s here has never made a decision in his life, never, and as a result he never makes mistakes.”

This attitude towards risk is further evidenced in Mgr NPD’s assessment of the technical team.

“Well they’re very risk averse the technical guys are very risk averse so anything that’s going to change ... their activity structure if you like, it is viewed a little negatively.”

Even **Technical** who is the most positive respondent agrees.

“Yes I think you always aware of some risk yes.”

It is not surprising then that when asked whether they identified more with their function or the organisation, the responses were generally functional.

“I think they are engineers first ... Yes I think they are marketing first and foremost.” (Mgr NPD)

“Function 100% function.” (Marketing)

**R&D** supports this by suggesting that even in regards to decision making, individuals are likely to align themselves with their function.
“I’ve got to make my boss happy and his boss happy ... I have got to say the right thing to support his opinion rather than what I think is right ... or what is best for the company”.

Technical, again showing his positivity identified mainly with the organisation. As did Mgr R&D who suggested that those who had been with the organisation for any length of time identified more with the organisation than their function, though this was not supported by the other responses. In fact Operations, who had the shortest association with the company, had a higher organisational identification than Mgr NPD who is one of the longest serving respondent.

The next stage in the interview was to determine how these factors may impact on the climate achieved during NPD. As usual the initial discussion on climate was interpreted in many ways by the respondents. Marketing’s response best reflects the situation within the company at the moment.

“I would say it is at a bit of a crossroads; I would say that in the past we had nothing and now we have something and I would add to that that the fact that we have something is a positive but that something needs to become more integral to our overall business. It just hasn’t been picked up as well as I would like to, again I have to remind myself that we’re only 12 months in and it does take time.”

This is further supported by Mgr NPD who suggests that the climate for NPD is currently project specific rather than being fully integrated through the business, with those strongly supported by top management having more “momentum” than other projects.

“... we have some projects that are barreling along at great rate of knots because our general manager, executive general manager, is very keen on it and he has spoken to his boss about it and they are both very keen on it and that tends to transform right the way through the whole process. Everybody hears about it, talks about it, it is in the hallway conversations. So the team involved in that tends to feel pretty confident that we are going to be well supported in this project.”
Mgr R&D relates the climate of NPD to its current level of priority suggesting that it is better than it has been for some years and is filtering through to the NPD projects from the top down.

R&D believes that having too many unrelated functions in the one place is not conducive to NPD.

“I think the fact that ... we have so many other people here that have nothing to do with research I think that it’s not a good climate to work in.“

Technical, typically describes the climate as “quite positive”.

When specifically asked about trust, the responses were also mixed. Mgr NPD believes that the structure of the NPD process enhanced trust between the individuals involved, but that the lack of understanding of the process can lead to mistrust,

“Lack of trust tends to come from less structured sorts of activities ... things that don’t have a discipline framework”

Mgr R&D believes that the level of trust is diminished due to concerns over who will get the “kudos” in the end. “Is it really going to be a team result?”. He believes it can be improved by making expectations clear and more transparency in the organisation so that “what you’re doing would be seen.”

R&D also believes that trust is diminished by management and the project leaders (usually marketing) taking the credit for NPD projects.

“They take the credit for everything you’ve done and they don’t even give you a thank you.”

R&D further believes that trust can be “enforced” by having systems in place so that “everybody is clear on what they need to do”. He goes on to suggest that collaboration is key.

“On top of that you need collaboration, you need collaboration you need a lot of collaboration.”

Technical, as the most positive respondent overall, believes that there is trust within NPD, at least at a competency level based on their experience.
“We are all respective of each person’s specialty and trust their judgment, trust their work and outcome”.

Operations has a completely opposing view,

“Do we trust all other functions to have done all the things they are supposed to have done? No”

The final stage of the interviews considers how all of the issues discussed to date may impact on the behaviours of the individuals involved in NPD. The first to be discussed is communication. Communication frequency is also considered to be pretty good with meetings held at least fortnightly for most NPD project. When discussing the “type” of communication, there are more interesting insights, with Mgr NPD suggesting that,

“there is a fair amount of keeping things to ourselves and not being all that open.”

Mgr R&D agrees that communication “bunkers down” when people put their own interests first.

“get the feeling that they’re holding back for the right time to get individual credit.”

R&D feels quite strongly about the level of communication

“you have to be careful with everything you say nowadays. You can’t say what you feel or what you think …It’s not a friendly sort of let’s sit down together and chat”.

Again it is Technical, who disagrees, believing that despite some people being “more outspoken than others… people can generally say what they think”.

Operations also disagree,

“There is no withholding of information unless it is appropriately withheld”.

Some of these behavioural issues can be attributed to the location of the functional specialists required for NPD. R&D feels very strongly about the need for a “research centre” for the R&D specialists. He also believes that marketing should be located with R&D, rather in a separate location.

“In the past when this used to be a research centre at the tea room we used to talk about lots of research stuff …it’s not a good thing having all these
pay people here …their value is not here, not under the research centre. One mob that should be in with research is marketing and they’re not.”

However, most other respondents believe that the communication systems are sufficient regardless of the location of the individuals involved.

A further collaborative behaviour to consider is mutual accommodation. Marketing suggests that the lack of focus caused by the lack of any type of collective evaluation criteria or goal means that functions do not work as cooperatively as they should.

“If the technical team are measured on cost of product and the New Product team are measured on delivering product and they’re not really focused on what the cost is that’s counterproductive if anything.”

He further suggests that minimising the conflict would also enhance cooperation.

“I am not 100% satisfied with the relationship between marketing and the technical team and I am far from satisfied with the relationship between marketing and the sales and the marketing and the operations team ... I think that if we could get those relationships to the point where the marketing and the New Products team relationship is it would be a real boom for our productivity.”

Even Technical concedes that “well sometimes you are left on your own a bit, so that is an issue at times.”

When it comes to overall NPD performance, the responses were quite conservative.

“I think in the maturity scale from naïve and hopeless through to worlds best practice, I suppose we are probably about 2.5 out of 5 or 3 out of 5, something like that. I don't think we are naïve, I don't think we are struggling totally but I don't think we are world class, I mean we might be 4 out of 5 when it comes to operational excellence but new product development excellence, we are kind of lower down than that.”(Mgr NPD)

“At the moment if I had to give it a rating out of 10 I would probably say six on the surface you know that sounds like a pretty course call but if you had of asked me the same question 12 months ago how we’d score on product development I’d probably would have said two. So it's getting better and
it’s getting better because it’s getting more focus. It just needs more.”

(Marketing)

Mgr R&D gave the company a 3 out of 10 based on its history and a lack of support by the previous management. He does concede it has improved in the last year. R&D rates it 8 out of 10 for new product performance, but 4 out of 10 for functionality, interaction and security. Technical rates NPD performance as a 4 out of 5. Operations believes that it is again “appropriate”.

“Given that it is the sort of industry that it is and the sort of products that we make, it is probably pretty high actually ... I actually think it’s about the appropriate level”.

5.5.3 Analysis: Does a Climate of Trust Exist at BUILDIN?

Consistent with the previous cases this analysis will utilise the evidence offered in the preceding section to determine whether or not a climate of trust exists within NPD at BUILDIN. As discussed in previous cases, the theoretical framework developed in chapter three has established that the climate of trust will be considered through the collective perceptions of the NPD project team members in relation to (i) their faith in management; (ii) faith in the NPD process; and (iii) their organisational identification. An examination of the management and process factors believed to influence these perceptions coupled with their overall perceptions of the level of trust and perceived individual risk within NPD will be used to determine whether or not a climate of trust exists at BUILDIN. It will further examine whether the climate of trust achieved impacts on the NPD outcomes. The aim of the analysis is to offer support or otherwise to the four propositions arising from this framework (Table 5.2)

It is interesting to note, that sifting through the evidence, certain patterns in individual answers became clear. The most noteworthy are those of the Senior Research Officer, and the Technical Officer. Both these respondents have been with the company for many years, 16 and 44 years respectively, and both work in a technical role, yet their perceptions regarding NPD were quite diverse. The Technical officer was considerably more optimistic about all aspects of NPD than most other respondents, whereas, the Senior Research Officer was clearly the most pessimistic respondent. There is no obvious explanation for this. It is unlikely to be due to the length of time with the company as other respondents with similar
company histories did not share their views. They may simply be a result of personality traits, self-confidence and job security. Their inconsistencies caused some concern during the analysis. The other responses to note are those of the Operations Manager. As mentioned in the initial introduction, he does not see himself as a major player in NPD. His responses reflect this and are often short and pragmatic offering little or no insight. He actually responds from almost a “third person” perspective on most occasions. This is particularly apparent regarding cross-functional conflict. All other respondents suggest that the majority of the conflict lies between the marketing and operations functions. Although he agrees to a “level of conflict”, he does not offer any further detail as to the direction or nature of the conflict. The only suggestion as to his true perceptions regarding the marketing function is elaborated on slightly during his discussion on leadership, though it is still answered quite generically. These inconsistencies amongst respondents will impact on the level of confidence in the conclusions drawn and the level of generalisability of this analysis.

5.5.4 Faith in Management at BUILDIN

*PI: A high level of faith in management leads to a higher climate of trust within NPD*

The elements associated with faith in management will be drawn from the theoretical framework. Those relevant to BULIDIN include the support given to NPD by top management and the subsequent priority given to NPD, the nature of the rewards and incentives offered, resource allocation, conflict handling procedures, and tolerance for failure (blame placing). Structural flux will also be relevant in this case due to the significant changes in top management over the past few years.

All respondents agree that the priority of NPD has improved under the current General Manager. They believe that there is now general acknowledgment from the top down that BUILDIN products have become somewhat “commoditised”, and that the way forward “is through innovation”. However, they also concede that it is difficult to shift the focus of a business that for many years saw operational excellence as the key to success. Therefore, although they all acknowledge that management has “a great deal of interest in new product development and enthusiasm for it”, several respondents also believe that the underlying agenda and attitude from management towards NPD is still prone to the more short-term,
traditional, profit driven approach of, “well that is all fantastic to have ... but what’s the result for this month?” One respondent suggested that this is further exacerbated by regular changes in top management. He suggests that if the “terms” of their employment are relatively short term, then it is not in their interests to focus on projects that are going to be “fruitful for the next life”. This certainly suggests that although structural flux in relation to changes in top management can be positive, it can also have underlying negative impacts on NPD.

This perceived ambiguity in management’s attitude to new product development is also reflected in the inconsistency in the perceived support for various NPD projects. In projects where the general manager and executive are “very keen on it”, their enthusiasm is seen to “transform right the way through the whole process”. In these cases “everybody hears about it, talks about is it is in the hallway conversations”. The teams involved in these projects therefore “feel pretty confident that we are going to be well supported in this project”. This is clearly a positive sign for NPD at BUILDIN. If this level of support can be maintained for all NPD, then faith in management will surely benefit.

There appears to be a similar situation regarding NPD resource allocation. Most agree that resource allocation has also improved under the current top management. Under the previous regime individuals described being “scared” to ask for resources as well as the likelihood of “poaching” them from other areas. They now concede that although management may not always have a “clear understanding” of what is actually needed within NPD, that once they realise the importance of a project, and the resources are justified, sufficient resources are allocated.

These responses show that the most recent changes in top management have had a positive impact on faith in management and overall NPD at BUILDIN. However, although there is general “buy in” form top management that “the way to move our business forward is through innovation”, inconsistencies in their behaviours mean that this has not yet necessarily filtered through the organisation, the NPD process or individuals involved in NPD.

This is evident when you delve deeper into the other management factors thought to be relevant to NPD. In the first instance, the conflict handling procedures currently in place do not appear to have a positive impact on faith in management at BUILDIN. All respondents
agree that “there is a lot of conflict” between the functions involved in NPD (specifically between the marketing and operations functions). They also agree that they are rarely dealt with at a project level and are often escalated. Unfortunately, the nature of the current conflict handling procedures sees the functional issues escalated to a functional management level. The result is that the inter-functional conflict is exacerbated before finally being settled either at that level or even higher, by the general manager. The multiple layers of inter-functional conflict in this procedure are likely to lead to higher functional identification which is not conducive to the development of a climate of trust or collaborative behaviours within NPD projects.

It is not surprising then to find that in this environment blame placing is also an issue. All respondents agree that “there is some blame”. Some respondents quite candidly suggest that “there has been finger pointing” and that you get “punished” for making mistakes. As a result, individuals involved in NPD are less likely to say “I stuffed up” and more likely to say “he stuffed up” and “cover” themselves whenever possible. This impacts considerably on their behaviour as the individuals involved need to “protect their backside”. This makes them less likely to “take risks” and more likely to be “conservative” or not act at all because “if you don’t do anything you don’t make mistakes.”

Another issue at BUILDIN is that the evaluation procedures currently in use certainly do not reflect the importance of NPD to the business. Traditionally, there has been a “solo mentality” at BUILDIN with people having “fairly specific individual goals” leading to “a bit of a plethora of focuses”. All respondents agree that the nature of the current evaluation procedures for each function involved in NPD impacts on their ability to work collectively during NPD. Not only are there no key performance indicators (KPIs) specific to new product development for any of the functions involved, some of their individual KPIs are actually opposed to the development of new products. For example, operations’ KPI’s are related to operational efficiencies that are bound to be compromised by new product development. The only KPI operations have related to NPD is one that is worded as, “support sales/marketing”. Rather than motivating operations to be more amenable to new product development, this KPI is actually seen to create conflict between the functions as they feel that in order to “support” NPD, their other KPIs are compromised, leading to the perception of “if your (KPI’s) screwed up in the process ... that’s your problem”. The end result is the perception that “people in operations are being used by people in marketing”. Clearly these
perceptions are not conducive to the development of a climate of trust, collaborative behaviour or NPD success overall. All respondents agree that a collective KPI specific to new product development for all functions involved would be beneficial. It would give them a “common aim” and avoid “everybody working in a different direction”.

Following from the issue of an NPD specific evaluation criteria for all individuals involved, there are also no rewards or incentives that specifically relate to NPD. Most respondents agree that offering rewards or incentives specific to NPD or to encourage the collaborative behaviours would be an improvement. Reasons varied from the encouragement of “new ideas” and improving the “productivity” of NPD meetings, to showing that the people and research involved in NPD are not only “valued” by the company but could get the “recognition that they deserve”. There were a couple of respondents who could also see problems with offering rewards/incentives, being the “basis” used to define who was rewarded/incentivised and whether it would just add another level of “bureaucracy” to the process. They all agree that “anything that would ... reinforce good behaviour would be good.”

Based on this analysis, the evidence suggests that the perceptions of the individuals involved regarding the NPD priority and resource allocation are improving at BUILDIN largely due to the change in top management. However, changing the entire focus of an organisation to be more “innovative” and the “mentality” of its workforce to act collectively rather than solo is not an easy task. Therefore, the full impact of these improvements has not yet filtered down to all elements of NPD. Some of the biggest issues associated with NPD from a management level at BUILDIN are the conflict handling procedures that do not encourage conflict handling at a project level but rather at a functional level. Blame placing is also an issue at BUILDIN as it increases the level of personal risk associated with NPD. The previous cases have shown that the lack of evaluation criteria specific to NPD or any incentives or rewards to encourage NPD performance do not necessarily diminish faith in management. In the case of BUILDIN, however, they are seen as another factor contributing to the overall level of faith in management.

Overall these results suggest that faith in management at BUILDIN is improving under the new management but there are still several significant issues that need to be addressed by the management team in order to consolidate their support of NPD and improve the overall level
of faith in management by the individuals involved in NPD. At this stage, faith in management is considered low to moderate (Table 5.24) and is not particularly conducive to the development of a climate of trust according to P1.

Table 5.24: Faith in Management and its contributing factors at BUILDIN

<table>
<thead>
<tr>
<th>Overall Faith in Management</th>
<th>Low to Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing Factors</td>
<td>Positive</td>
</tr>
<tr>
<td>NPD Priority</td>
<td>Perceptions regarding NPD priority are ambiguous. On the one hand management is perceived to have “a great deal of interest in new product development and enthusiasm for it”</td>
</tr>
<tr>
<td>Fair Resource Allocation</td>
<td>Perceived to be better than under the previous management regime. Once management realise the importance of a project, and the resources are justified, sufficient resources are allocated</td>
</tr>
<tr>
<td>Conflict Handling</td>
<td>Conflicts tend to be escalated to a functional management level or higher which increases functional identification.</td>
</tr>
<tr>
<td>Tolerance for Failure (Blame Placing)</td>
<td>The perception is that you get “punished” for making mistakes. As a result, individuals involved in NPD are less likely to say “I stuffed up” and more likely to say “he stuffed up” and “cover” themselves whenever possible. This leads to risk adverse behaviours overall.</td>
</tr>
<tr>
<td>Contributing Factors</td>
<td>Positive</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rewards and Incentives Offered (NPD specific)</td>
<td></td>
</tr>
<tr>
<td>Changes in Top Management</td>
<td>The general perception is that the changes in top management has been positive but may not have filtered down to all elements of NPD as yet.</td>
</tr>
</tbody>
</table>

### 5.5.5 Faith in the NPD Process at BUILDIN

*P2: A high level of faith in the NPD process leads to a higher climate of trust within NPD*

The most significant elements associated with faith in the NPD process at BUILDIN include the formalisation of the process and the type of decision making. External activities such as the amount of change within the NPD process and personnel may also impact on their perceptions.

The NPD process is one of the biggest issues associated with NPD at BUILDIN as can be seen by all of the respondents mentioning a process matter in response to the initial question regarding “what would you change”. It is interesting to note that each individual’s response included their functional twist, with **NPD Mgr** requiring more integration with the business plan, **Marketing** wanting more authority, **Operations** wanting to be consulted earlier and **Mgr R&D** wanting the process simplified. The challenge therefore is to analyse what are the most significant process issues for NPD at BUILDIN overall that actually impact on the climate of trust achieved.

The NPD process is quite structured at BUILDIN using a “stage gate” approach. As has been evident in other cases, structure can have both positive and negative impacts on individuals’ faith in the process depending on the way it is managed. In this case, although most
respondents agree that it is constantly improving, there are fears that it is a “fairly detailed procedure” which can potentially be “time consuming”.

Despite the formalised structure, most respondents agree that there remains relative autonomy with the “gates” with each of its stages being “signed off” at a management level. Only Marketing believe that the process is still too centralised. This may be due to the recent change in focus to a more market driven organisation. Under the previous regime, NPD was managed largely by the technical functions, whereas it is now managed by individuals from marketing. There is evidence to suggest that this change has created a level of conflict between the functions involved in NPD, with several technical functions commenting on the “leadership” of the process. It is therefore understandable that Marketing is trying to consolidate his leadership role with more decision making capabilities.

The “solo” mentality mentioned earlier also impacts on the level of collectivity experienced within NPD. As everyone is focused on their own individual pursuits, the success of the NPD project becomes secondary.

One of the more negative issues regarding the NPD process has come about due to the amount of change in top management with the process described as having “a twig for every general manager we have had ... since 97”. Considering that the company has “churned over general managers at a fairly rapid rate”, this seems to suggest that the process has been in quite a state of flux over many years. The result is that the process is perceived to be continuously changing with most participants having a limited understanding as to the actual mechanics of the current process. The level of understanding is described as not having “filtered through” or gained “absolute acceptance” to there being “a degree of ignorance”. This does not appear to be a good indicator for “faith” in the NPD process with Mgr R&D conceding “when you know the process, you have faith”.

Even though the NPD process at BUILDIN is relatively formalised, with a degree of decision making autonomy, the extent of change apparent in the NPD process in a relatively short time has meant that this has not necessarily filtered down to all the individuals involved in NPD. The result of this is that individuals still operate with a “solo” rather than collective mentality. These results suggest that faith in the NPD process, like faith in management, although
improving is still currently low to moderate (Table 5.25) and that according to P2 decreases the likelihood of the development of a climate of trust at BUILDIN.

Table 5.25: Faith in the NPD Process and its contributing factors at BULDIN

<table>
<thead>
<tr>
<th>Overall Faith in the NPD Process</th>
<th>Low to Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing Factors</td>
<td>Positive</td>
</tr>
<tr>
<td>Formalised NPD process</td>
<td>A structured, formal stage-gate process currently exists and is perceived to be constantly improving.</td>
</tr>
<tr>
<td>Autonomous decision making within NPD</td>
<td>There is perceived to be relative autonomy within “gates” by most respondents although Marketing would like more decision making power.</td>
</tr>
<tr>
<td>Commitment to shared or “collective” goals</td>
<td></td>
</tr>
<tr>
<td>Changes to NPD process</td>
<td>There is a perception that “there is a twig for every general manager” in the NPD process. Each change requires some time to be “filtered through” the organisation leading to a range of NPD process awareness from “absolute acceptance” to “a degree of ignorance”.</td>
</tr>
<tr>
<td>Changes to NPD personnel</td>
<td>There have been no significant changes to NPD personnel although there has been a change in NPD leadership from R&amp;D to Marketing. This has led to some project leadership issues within NPD.</td>
</tr>
</tbody>
</table>
5.5.6 Organisational Identification at BUILDIN

P3: A high level of organisational identification leads to a higher climate of trust within NPD

The extent of an individual’s identification with an organisation or a group within it has been shown to have a positive effect on both climates and trust, leading to more open communication and reduced inter-functional conflict. Therefore, the level of the individuals’ organisational identification will also be considered in relation to the development of a climate of trust. The framework proposes that the climate of trust will be higher within NPD if individuals identify more with the organisation or NPD team than with their functional areas.

The analysis to date makes it fairly clear that that functional identification is generally high at BUILDIN with half of the respondents conceding that, to some degree, they identify first with their function and then with the organisation, though it did vary. This may be as a result of the change in focus from an operations driven to a market driven organisation. The evidence suggests that this functional identification is reinforced by the conflict that exists between functions (particularly between the marketing and operations functions). It is further exacerbated by the conflict handling techniques currently used within NPD, where conflicts are not dealt with at the project level but escalated through functional management levels. As a result individuals feel that they have to "make my boss happy and his boss happy", rather than support the NPD project. Even though Mgr R&D and Technical suggest that organisational identification will increase the longer you are with the company, this is the only case examined so far where this is not consistently true. This supports one of the key elements of this study that is that the organisational factors have a significant impact on the perceptions of the individuals involved. Accordingly, and in line with P3, the likelihood of the organisation having developed a climate of trust remains relatively low.
Table 5.26: Organisational Identification at BUILDIN

<table>
<thead>
<tr>
<th>Overall Organisational Identification</th>
<th>Relatively Low</th>
<th>Functional Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Organisational Identification</td>
<td>Believes that all functions identify with their function first.</td>
</tr>
<tr>
<td><strong>NPD Mgr</strong> – 36 yrs with co</td>
<td></td>
<td>Strongly believes there is functional identification. “Function 100% function.”</td>
</tr>
<tr>
<td><strong>Marketing</strong> – 7 yrs with co</td>
<td></td>
<td>Identifies with the organisation and believes those who have been with the company the longest have higher organisational identification.</td>
</tr>
<tr>
<td><strong>Mgr R&amp;D</strong> – 40 yrs with co</td>
<td></td>
<td>Identifies with the organisation and also believes that length of time with the business increases your identification with it.</td>
</tr>
<tr>
<td><strong>Technical</strong> – 44 yrs with co</td>
<td></td>
<td>Explains his functional identification as the need to “make my boss happy ... rather than what I think ... or what is best for the company.”</td>
</tr>
<tr>
<td><strong>R&amp;D</strong> – 16 yrs with co</td>
<td></td>
<td>Feels like a BUILDIN person despite little time with the organisation.</td>
</tr>
</tbody>
</table>
5.5.7 Is there a Climate of Trust at BUILDIN?

Based on the preceding analysis and propositions it would appear that following situations exist at BUILDIN:

- Faith in management is currently low to moderate, though improving due to changes in top management specifically in regards to the priority given to NPD and the subsequent resource allocation.

- Faith in the process is low to moderate, but is also improving as a more structured process is implemented.

- Organisational identification is relatively low showing inconsistency between respondents despite the length of time they have been with the business.

These situations suggest that in line with the propositions, the climate of trust is relatively low at BUILDIN. Specific questions relating to both climates and trust within NPD are also asked in an attempt to verify the findings.

It is interesting to note that positive responses to trust relate it to the amount of structure within an activity. This supports the finding that the current process, that is a relatively structured one at BUILDIN, is one of the few positive contributors to the climate within NPD.

However, the key issues associated with diminishing trust at BUILDIN relate to who is going to get the “kudos” in the end and whether or not it is “going to be a team result”. This is extended even further to suggest that the project leaders (from marketing) “take the credit for everything you’ve done ... and don’t even give you a thank you”. This reinforces the issue of the “solo” mentality which is exacerbated by the lack of collective evaluation criteria, rewards or incentives as well as alluding to the inter-functional conflict that clearly exists and is seen to be poorly handled at BUILDIN.

The level of perceived personal risk is also high at BUILDIN, a further indicator of diminished trust. Respondents suggest that there “is not a lot of incentive to take risks on behalf of the project” as you get “punished” for making “mistakes”. As a result, they describe each other as “conservative” and “risk averse”. There are various organisational factors that
have been shown to impact on this including the level of blame placing and again the conflict handling procedures.

These findings further support the first 3 propositions that when faith in management, faith in the process and organisational identification are all relatively low, then the climate of trust will be low also.

Table 5.27: Climate of Trust at BUILDIN

<table>
<thead>
<tr>
<th>Climate of Trust</th>
<th>Relatively Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propositions</td>
<td></td>
</tr>
<tr>
<td>Faith in Management</td>
<td>Low to Moderate</td>
</tr>
<tr>
<td>Faith in the NPD Process</td>
<td>Low to Moderate</td>
</tr>
<tr>
<td>Organisational Identification</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>Supporting Evidence</td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Perceived Personal Risk</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td></td>
</tr>
</tbody>
</table>

Organisational (“swift”) Trust

Diminishing trust relating to who is going to get the “kudos” in the end and whether or not it is “going to be a team result”.

Perceived Personal Risk

There “is not a lot of incentive to take risks on behalf of the project” as you get “punished” for making “mistakes”.

The final stage in the analysis will be to consider the final proposition of whether the development of a climate of trust impacts on individual behaviours and ultimately NPD success.

5.5.8 NPD Outcomes at BUILDIN

P4: A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.
The behaviours to be considered are the collaborative behaviours of bi-directional communication, mutual accommodation and functional, as opposed to dysfunctional conflict and finally NPD success.

Although not all respondents are in agreement as to the communication practices at BUILDIN, there are several suggesting that there is “a fair amount of keeping things to ourselves”, people putting “their own interests first”, and people “holding back” in order to get “individual credit”. The more positive comments included some people being “more outspoken than others” but generally being able to “say what they think” and information that is “appropriately withheld”. Overall, these are not the behaviours associated with bi-directional communication

Mutual accommodation is quite difficult to assess. However, the “solo” mentality evident throughout the analysis is certainly not conducive to this level of cooperation. The lack of collective goals and inter-functional conflict can also be seen to impact on the level of cooperation achieved within NPD.

Conflict is clearly an issue at BUILDIN. This has been strongly evidenced throughout the analysis. Although most respondents suggested that conflict exists between the marketing and operations functions, the responses on leadership and KPI’s also suggested conflict between the marketing function and several of the more technical functions. It is interesting to note that it is Operations that suggests that the conflict is not “strong” and is well managed. This suggests that, as was found at FOODIS, conflict may be more apparent depending on your function, in this case marketing and R&D. However, the remaining evidence suggests that this may not be the case. The fact that conflict within NPD is usually escalated beyond the NPD project to the functional managers suggests that it is a more dysfunctional conflict.

It is not surprising that based on the analysis to date, as well as examination of the evidence specific to NPD outcomes that collaborative behaviours are not particularly evident at BUILDIN. This supports the fourth and final proposition that a low climate of trust is unlikely to lead to collaborative behaviours.
Table 5.28: Collaborative Behaviours at BUILDIN

<table>
<thead>
<tr>
<th>Climate of Trust</th>
<th>Collaborative Behaviours</th>
<th>Relatively Low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bi-directional Communication</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>There is perceived to be “a fair amount of keeping things to ourselves”, people putting “their own interests first”, and people “holding back” in order to get “individual credit”.”</td>
</tr>
<tr>
<td></td>
<td>Mutual Accommodation</td>
<td>It is generally evident that the “solo” mentality at BUILDIN is not conducive to this level of cooperation</td>
</tr>
<tr>
<td></td>
<td>Functional Conflict</td>
<td>The fact that conflict within NPD is usually escalated beyond the NPD project to the functional managers suggests that it is a more dysfunctional conflict.</td>
</tr>
</tbody>
</table>

5.5.9 BUILDIN Summary

Table 5.29: Findings from the BUILDIN analysis

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1: Level of Faith in Management</td>
<td>Low to Moderate</td>
</tr>
<tr>
<td>P2: Level of Faith in the NPD Process</td>
<td>Low to Moderate</td>
</tr>
<tr>
<td>P3: Level of Organisational Identification</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>Climate of Trust</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>P4: Level of Collaborative Behaviours</td>
<td>Relatively Low</td>
</tr>
</tbody>
</table>

It is clear from the analysis that although the climate of trust is currently relatively low at BUILDIN there is certainly the potential for improvement. The changes in top management are seen as positive by all respondents. The change of focus in the business from
“commodity” type manufacturing to “innovation” is certainly positive for new product
development overall. The challenge is for this focus to filter through the entire organisation
and its processes.

One of the most significant changes requires the shift from a “solo” mentality to a more
“collective” one, with several management and process based alternatives available to address
this. The types of issues that need to be addressed include conflict handling procedures that
encourage conflict resolution at a project, rather than functional level and discourage blame
placing. The current procedure not only encourages functional, rather than organisational
identification, but it further increases the perceived personal risk of the individuals involved
which is not conducive to improving organisational identification or collaborative behaviours.
A further consideration could be the lack of “collective” evaluation criteria, rewards or
incentives specific to NPD or collaborations behaviours.

At a process level, the biggest issue relates to the degree of change within the process. The
lack of faith stems from individuals not having a clear understanding of the current process
and their role within it. It is particularly interesting to note that the perceptions regarding the
project leadership have again had an impact on the level of faith in the process and in the
climate of trust achieved. In this case the change from an R&D driven NPD process to a
marketing driven one has created a level of conflict between marketing and most of the other
functions involved. These conflicts increase functional (rather than organisational)
identification and discourage collaborative behaviours such as bi-directional communication
and mutual accommodation creating dysfunctional conflict that is not conducive to the
development of a climate of trust.

Despite these difficulties, the following description suggests that improvements have already
been made and are apparent at a project level.

“We have some projects that are barreling along at great rate of knots
because our general manager ... is very keen on it ... Everybody hears about
it, talks about it, it is in the hallway conversations. So the team involved in
that tends to feel pretty confident that we are going to be well supported in
this project.”
The challenge for BUILDIN is to consider the organisational factors that can be fine-tuned in order to develop these types of behaviours for all NPD activities within the company.
CHAPTER 6: CROSS-CASE ANALYSIS

6.1 Introduction

In chapter 5, four cases are analysed in relation to the propositions developed in the theoretical framework in chapter 3. The main advantage of the multiple case study methodology is replication logic. That is, each case serves as a distinct experiment that stands on its own as an analytical unit. If similar results, or predictable differences, are found in repeated case studies, then we develop greater confidence in the findings (De Vaus, 2006). The cross-case findings then serve as a replication, contrast and extension to the emerging theory (Yin, 1984; Eisenhardt, 1989). This chapter provides a cross case analysis, comparing the results of the individual cases in order to determine the strongest match between the data examined and the propositions, again listed below, and conversely, where the data appears to refute the propositions. Firstly, each construct used in the propositions will be examined in turn to determine the best indicators of each. Secondly, the propositions themselves will be examined in order to assess their impact on the climate of trust achieved.

<table>
<thead>
<tr>
<th>No</th>
<th>Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>A high level of faith in management leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td>P2</td>
<td>A high level of faith in the NPD process leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td>P3</td>
<td>A high level of organisational identification leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td>P4</td>
<td>A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.</td>
</tr>
</tbody>
</table>

6.2 Faith in Management

I begin with an examination of the findings regarding faith in management. The four cases examined several factors, taken from the existing NPD literature because of their potential impact on NPD success, and considers them specifically in relation to the respondents’ faith
in management according to the framework developed in chapter 3. These factors include: the priority given to NPD; resource allocation; their conflict handling procedures; their tolerance for failure (blame placing); the nature of the rewards and incentives offered; and the amount of change in top management. Other factors emerging from the interviews were also examined. The framework suggests that the overall perceptions of the individuals involved in NPD on these factors will impact on each individuals “faith” in management which in turn will affect the climate of trust within NPD, leading to P1.

**P1: A high level of faith in management leads to a higher climate of trust within NPD**

Each of the four cases is examined with the aim of determining a level of faith in management at each firm. Table 6.2 summarises the results of the individual cases. The cross-case analysis compares these results to determine which factors have the most impact on faith in management and whether there is enough evidence across all four cases to support P1.

I begin the analysis to support this proposition by considering commonalities between the firms considered to have a higher perceived faith in management, INMAN and HEVIS. In both these cases, there is a high perceived NPD priority that is further reflected through the respondents’ perceptions regarding resource allocation. At INMAN, NPD priority is considered to be high as it is “important for survival now” and resources are believed to be “allocated accordingly”. It is interesting to note that even though the general perception regarding NPD priority and resource allocation is quite positive, there is a belief that it could be further improved with the addition of dedicated NPD resources rather than the somewhat ad hoc approach that currently exists. The impact of having dedicated NPD resources is reflected at HEVIS, where faith in management is considered to be the highest. The new appointment of an NPD manager at HEVIS is one of the main influences on the perceptions regarding NPD priority. This position is perceived to not only reflect the priority of NPD as “a demonstration that it is serious about new products development”, but also a “voice” for the company with its parent organisation providing the potential to influence the resources they allocate to HEVIS.

BUILDIN and FOODIS, both of which are considered to have a lower level of faith in management, appear to lack a consistent “demonstration” of NPD priority. At FOODIS, all
respondents agree that NPD should be a priority to continue to grow and maintain their number one status. However, they also consistently believe that although top management acknowledge NPD to be a business risk, their support for it is not demonstrated through their actions and in particular their resource allocations. At a company where resources are considered ample and “fluid”, there is a “graveyard” of new products that are perceived to have been abandoned due to a lack of support post launch. A possible explanation for this is that FOODIS is coming out of a period of high growth through mergers and acquisitions. Therefore, although they acknowledge their under-performance in NPD as a business risk, full support is dependent on a significant shift in focus from growth by acquisition to growth through innovation.

At BUILDIN, all respondents agree that there is general “buy in” from the new management team about the priority of NPD. However, it has not necessarily filtered down through the organisation. There is general agreement that NPD resources are more readily available now than under the previous management regime. Currently, resources are thought to be fairly allocated as long as they can be justified, as opposed to previously being too “scared” to ask for them at all. The problem arises from the perceived inconsistency in management actions where the perception is that there is “enthusiasm ... right through the whole process” for some new products but not for others. Like FOODIS, BUILDIN is also in a transitional phase. They are trying to avoid their products being “commoditised” by moving away from being an organisation driven by “operational excellence” to one that is driven by innovation. This shift from a traditional short-term, profit driven approach to a longer term, NPD driven one is likely to take some time to filter through the organisation and thus impact on perceptions regarding the priority given to NPD. The findings from both FOODIS and BUILDIN suggest that firm dynamics can also impact on the individuals’ perceptions regarding the priority of NPD within the organisation. In both these cases, there is evidence of a shift in priority which has not yet filtered through to all members creating a diversity of views in relation to their faith in management and the overall climate of trust. This will be discussed further when considering the impact of structural flux.

Overall, the cases considered to have the highest level of faith in management perceive that there is a clear demonstration of NPD priority largely through the allocation of resources associated with it. This suggests that NPD priority and resource allocation that have already
been shown to impact on integration are also significant factors in the development of faith in management.

The next factor considered to contribute to the level of faith in management is **Conflict handling**. All respondents at INMAN believe that conflicts are well managed. Many are not even aware that conflict exists, and those that are aware feel that they are kept to a “work level” and not taken “personally”. Conflicts are generally managed by the MD or his second in charge. As previously explained, being the smallest firm studied, the MD at INMAN is seen as the main driver of NPD within the organisation and as such acts as a project manager for NPD. In the case of HEVIS, most respondents agree that a level of conflict does exist within NPD, but that although it may lead to “robust discussion” it is handled within the NPD project team, rather than being escalated to functional managers or higher.

By contrast, at FOODIS, conflicts are often escalated to at least a functional level, where functional managers are often called on during conflict resolution rather than managing it at a project level. This is considered to increase their functional identification by encouraging the individuals in NPD to support their functional managers rather than the NPD team. This in turn is considered to have a negative impact on the workings of the NPD project team.

A similar situation exists at BUILDIN where “there is a lot of conflict” that is rarely managed at the project level, but is escalated through the functional managers and sometimes even to the MD. Again, this is considered to increase their functional identification at the expense of their NPD project team. Overall, the cases believed to have lower levels of faith in management do not resolve conflicts within the NPD project but escalate them to at least a functional managers’ level, which is believed to increase their functional identification.

Evident from these findings is the impact of these types of conflict handling procedures on the level of functional identification, but not necessarily on the level of faith in management. This suggests that although conflict handling remains a significant factor in the development of a climate of trust within NPD, it may not be because of its impact on faith in management but rather its impact on functional identification. This will be discussed further when considering organisational identification.
The issue of tolerance for failure or blame placing provides another novel insight as it is not always consistent with low faith in management as expected. Although there is a level of blame placing in both cases with lower faith in management, it is also found to exist at HEVIS, considered to have the highest level of faith in management of all four cases. INMAN is the only case where all respondents agree that it is not a “blaming culture”. This is consistent with their perceptions regarding conflicts being managed at a “work level” and not taken personally.

However, at HEVIS, believed to have the highest level of faith in management, there is evidence of blame placing. The interesting thing to note is that it is viewed by all respondents as a way to “see what we can do better for the next time”. This is supported by their perceptions on personal risk. All respondents again agree that even though they feel personally responsible for their component within the NPD project, this is seen as a means of deriving personal benefits, such as being recognised for their contribution, rather than creating a perception of personal risk.

At FOODIS, blame placing is perceived to occur at a functional level, with functional managers being blamed for mistakes made by their subordinates. This is evident at FOODIS where several respondents talked about the “head of the area” being held responsible for issues within his/her function. This not only increases the functional identification of the respondents, but increases the risk averse behaviours of their functional managers. Blame placing is perhaps most prevalent at BUILDIN where “there has been finger pointing” and people are perceived to have been “punished” for making mistakes. Respondents suggest that this results in more “conservative” behaviour overall as people try to “protect their backsides”. These responses indicate that both personal risk and risk adverse behaviours exist at BUILDIN which are not conducive to the development of a climate of trust.

Overall, the cross-case analysis suggests that the existence of blame placing alone does not necessarily reduce faith in management. However, it does appear to impact on a number of other factors potentially associated with the development of a climate of trust such as functional identification, the level of perceived individual risk or benefit associated with NPD, and the development of more conservative, risk averse behaviours. This suggests that it is still a significant factor in the development of a climate of trust.
None of the cases studied offer specific rewards or incentives for NPD performance or desired behaviours. Furthermore, there is little or no agreement as to the benefit or otherwise of having NPD specific rewards or incentives. These findings are contrary to examples in the existing NPD literature and may indicate that rewards and incentives are simply not usual or expected in an Australian context. This is supported by the reactions of many of the respondents in regards to this issue, with little or no consensus on the benefits of these types of incentives and several answering quite cynically that the “reward” is to “keep your job”. This suggests that at least in these four cases rewards and incentives have no impact or perhaps even a negative one on the level of faith in management that exists.

A related factor that does potentially impact on faith in management is the nature of the evaluation criteria used within the organisation. In fact, all four cases acknowledge that the individual nature of the evaluation criteria used can impact on NPD by undermining their incentive to work collectively. This is particularly well explained at BUILDIN where the individual nature of the evaluation criteria used is perceived to increase the “solo” mentality of the individuals and lead to a “plethora of focuses”. The issue is further exacerbated by the fact that individuals involved in NPD can have completely opposing performance criteria.

This is particularly apparent in regards to the operations functions. In all cases, one of the major conflicts discussed exists between operations and other functions such as marketing or R&D. This is attributed to the fact that operations are evaluated based on operational excellence and efficiency in current processes, which is not usually conducive to the experimentation required for new product development. A further issue is that some individuals involved in NPD projects do not have any individual evaluation criteria that relate to NPD. There is general consensus that a collective evaluation criteria specific to NPD would be beneficial, by giving all parties involved in NPD a “common aim” and “avoid people working in different directions”. However, simply having collective evaluative criteria is not sufficient, they must be perceived as “significant” enough to be prioritised by all the individuals involved.

This finding suggests that the lack of collective evaluation criteria within NPD, may impact on faith in management and the overall climate of trust achieved.
**Structural flux** has been shown to decrease communication effectiveness and increase conflict and rivalry between functions during NPD (Maltz, 1997; Maltz and Kohli, 2000; Leenders and Wierenga, 2002). This study examines structural flux specifically as it relates the climate of trust achieved. Rather than considering structural flux as a single phenomenon, elements of change have been incorporated into the analysis of both faith in management and faith in the NPD process. For example, changes in top management were considered in relation to their impact on faith in management overall. Evident from the analysis is that **structural flux**, at least in regards to changes in top management, does not necessarily have a negative impact on faith in management. All four cases have had fairly recent changes in top management. At INMAN, the change is a new CEO at the national corporation level and is perceived to have a negative impact on both NPD and INMAN overall. He is seen as being largely responsible for a new product being shelved and is accused of not understanding the importance of NPD to the survival of INMAN. These perceptions clearly have the potential to reduce faith in management (at least in top management) and the overall climate within NPD, though that does not appear to be evident as yet as faith in their current Managing Director still remains high.

Conversely, HEVIS has had a change of Managing Director in recent years from someone described as “dominating”, making centralised decisions with little or no consultation, to an MD who “wants to make sure decisions are made collaboratively”. Overall this is seen as positive for both NPD and HEVIS.

FOODIS has experienced many changes in management over recent years due to their growth through mergers and acquisitions. Not all changes are seen as negative, for example the addition of new “talent” within the firm. However the nature of change is perceived to have led to a somewhat short-sighted approach by management, who are looking for short-term gains rather than longer term prospects such as support for new product development as a growth engine.

BUILDIN has also seen a change in General Manager. The overall perception is that he is an improvement on the previous GM, in that he acknowledges that the product has become somewhat commodotised and that the way forward is through innovation. This acknowledgement requires a significant shift in the focus of the organisation from “operational excellence” to NPD. So, even though the new priority of NPD has not
necessarily filtered through the entire organisation, the change in management is still viewed positively.

Overall, two cases, HEVIS and BUILDIN, perceive the change in management to be beneficial to NPD within their business, while the other two, INMAN and FOODIS, perceive the change as having a more negative impact on NPD. This evidence suggests that it is the direction or character of the change, rather than change itself that is the important factor. As discussed earlier, one of the issues regarding changes in top management is the diversity of views created by changes not being communicated to all members involved in NPD. This diversity of views makes it difficult to achieve the collective perceptions necessary to develop a climate of trust within NPD. Therefore, change itself is not necessarily an indicator of faith in management; however the uncertainty it creates can lead to conflicting views within NPD that will impact on the development of a climate of trust.

In summary, the strongest indicators of faith in management are the priority given to NPD which is often demonstrated through the allocation of appropriate resources throughout the NPD process. Some of the other factors examined are likely to impact on the development of a climate of trust but may not necessarily impact on the level of faith in management. These include conflict handling procedures that encourage conflict resolution at a project level. The evidence suggests that the conflict handling procedure used has the most impact on the level of functional identification, rather than on faith in management. Additionally, the existence of blame placing did not in itself appear to impact on faith in management. However, it too can increase functional identification and perceived individual risk. Interestingly, blame placing is perceived to offer personal benefits by recognising personal contributions, rather than risks when it occurs within the boundaries of a specific project as evidenced at HEVIS. Offering rewards and incentives specific to NPD performance or collaborative behaviours is not evident in any of the cases examined, making it difficult to gauge whether or not it is a factor that influences faith in management. However the incorporation of evaluation criteria specific to NPD for all individuals involved is perceived to be beneficial. Therefore, although it is not apparent in any of the cases examined, it has the potential to impact on faith in management. Finally, these findings suggest that structural flux, at least in regards to changes in top management is not in itself an indicator of faith in management, with changes being viewed in both a positive and negative light depending on the type of change. However, it
does appear that the communication of the change can have a negative impact on the climate of trust achieved by creating a diversity of views between the individuals involved in NPD.
Table 6.2: Cross-case analysis of Faith in Management

<table>
<thead>
<tr>
<th>Faith in Management</th>
<th>INMAN (Case 1)</th>
<th>HEVIS (Case 2)</th>
<th>FOODIS (Case 3)</th>
<th>BUILDIN (Case 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contributing Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPD Priority</td>
<td>YES - Perceived as essential for survival by all respondents.</td>
<td>YES - Perceived to be more than lip service and supported by management actions.</td>
<td>NO - Perceptions that it should be a priority but that this is not demonstrated through management actions.</td>
<td>NO – Although in the process of shifting their focus from operational excellence to new product development but has not necessarily sifted through the rest of the organisation.</td>
</tr>
<tr>
<td>Fair Resource Allocation</td>
<td>YES - Resources are perceived to be allocated according to the priority of NPD. There is some suggest that it could be improved through the allocation of dedicated NPD resources.</td>
<td>YES - Perceived to be improving with the addition of the NPD manager who also is seen to provide the “voice” of the organisation to the parent company.</td>
<td>NO - Perceived to be available through the process but lacking in the support of new products after launch.</td>
<td>YES - Perceived to be available if justified. Better than under the previous management regime where people were too scared to ask.</td>
</tr>
<tr>
<td>Conflict Handling</td>
<td>NPD LEVEL - Not perceived to get out of hand or personal, but kept at a work level.</td>
<td>NPD LEVEL - Perceived to be well managed at an NPD level, largely by the NPD manager.</td>
<td>ESCALATED - Not resolved within the NPD project but escalated to functional managers leading to higher levels of functional identification.</td>
<td>ESCALATED - Not resolved within the NPD project but escalated to functional managers leading to higher levels of functional identification.</td>
</tr>
<tr>
<td>Blame Placing</td>
<td>NO - Not perceived as a blaming culture.</td>
<td>YES - Perceived to exist but to offer an opportunity for personal gain rather than personal risk.</td>
<td>YES - Functional managers held responsible for mistakes by their subordinates within NPD projects leading to higher levels of functional identification and risk averse behaviours.</td>
<td>YES - Finger pointing perceived to exist encouraging risk adverse behaviours.</td>
</tr>
<tr>
<td>Rewards and Incentives Offered (NPD specific)/</td>
<td>NO - No rewards or incentives specifically related to NPD or collaborative behaviours.</td>
<td>NO - No rewards or incentives specifically related to NPD or collaborative behaviours.</td>
<td>NO - No rewards or incentives specifically related to NPD or collaborative behaviours.</td>
<td>NO - No rewards or incentives specifically related to NPD or collaborative behaviours.</td>
</tr>
<tr>
<td>NPD Specific Evaluation Criteria</td>
<td>NO - Evaluation criteria developed individually.</td>
<td>NO - Evaluation criteria developed individually.</td>
<td>NO - Evaluation criteria developed individually.</td>
<td>NO - Evaluation criteria developed individually.</td>
</tr>
<tr>
<td>----------------------------------</td>
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</tr>
<tr>
<td>Changes in Top Management</td>
<td>YES - Recent changes in top management of parent company perceived to be less supportive of NPD and the business overall than in the past.</td>
<td>YES - Change of MD perceived to encourage more collaboration.</td>
<td>YES - Constant changes due to their growth through mergers and acquisitions perceived to lead to short-term focus by management overall.</td>
<td>YES - Recent changes in top management perceived to be an improvement from the previous regime.</td>
</tr>
</tbody>
</table>
6.3 Faith in the NPD Process

Next, I consider the findings regarding faith in the NPD process. The organisational factors examined are again taken from the existing literature and examined in relation to their impact on faith in the NPD process within each firm. The factors examined include: the degree of formalisation of the NPD process, the type of decision making; their commitment to shared goals; and the amount of change in the NPD process and its personnel. The framework suggests that the overall perceptions of the individuals involved in NPD on these factors will impact on each individuals “faith” in the NPD process which in turn will affect the climate of trust within NPD. P2 suggests that a high level of faith in the NPD process is more likely to create a climate of trust within NPD.

**P2: A high level of faith in the NPD process leads to a higher climate of trust within NPD**

Each of the four cases is examined in the aim of determining a level of faith in the NPD process. Table 6.3 summarises the results of the individual cases. The cross-case analysis compares these results to determine which factors have the most significant impact on faith in the process and whether there is enough evidence across all four cases to support P2.

One of the most significant factors found to impact on faith in the NPD process was not considered in the original framework, but emerged from the interviews. When considering all four cases, it appears that perceptions regarding the NPD project leaders definitely impacts on the overall faith in the NPD process. HEVIS, who is considered to have the highest level of faith, though still working on formalising their process, have a dedicated NPD manager who is perceived positively overall. His role is seen as an indicator of the priority of NPD within the organisation, as both a dedicated NPD resource as well as a “voice” in the greater organisation. The changes brought about by his role are also perceived to have improved the structure of the NPD process and the autonomy of decision making and conflict handling within the project team. Overall, this role has led to respondents’ higher levels of faith in both management and the NPD process. Similarly at INMAN, despite an informal process and centralised decision making usually associated with poor NPD performance, the respondents’ faith in management (mainly their MD), who is also considered the “driver” of NPD, has led to their faith in the NPD process being relatively high.
Conversely, in both FOODIS and BUILDIN, despite a formal stage-gate process, the NPD project leaders are usually the marketing representative in the cross-functional project team. At FOODIS, they are not perceived to be the “right” people to manage the project. All respondents, except of course for the marketing specialist, do not feel that marketing have the necessary skills to be good project leaders; believing “project people” should run NPD. At BUILDIN it is perceived that the project leaders (marketing) “take the credit for everything ... and don’t even give you a thank you.” These perceptions regarding their project leaders lead to more conflict, higher functional identification and generally have a negative impact on faith in the process and the overall climate of trust.

These findings suggest that faith in the process is improved when the project manager is not simply one of the functional specialists on the project team but acts in a separate capacity as an overseer with authority over the NPD project. This factor was not considered in the original theoretical development but will be explored further in chapter 7.

The decision making process within NPD is another factor that was found to impacts on overall faith in the process. HEVIS, considered to have the highest faith in the process, has relatively autonomous decision making authority at least within the “gates”. As mentioned above, this is largely a result of the NPD manager’s role. In this role he has reduced the size of the NPD project committee. He also has all NPD information come through him, so that it is not presented to the committee until it is at a stage where “a decision can be made”. This vastly improves the perceptions of autonomy within NPD at HEVIS with the NPD committee perceived as having “a fair bit of power in terms of decision making and plotting the course of the future”. BUILDIN also has a stage-gate process. Like HEVIS, their respondents perceive that there is relative autonomy within the gates.

FOODIS also has a stage-gate structure. However, the number of “signatories” involved in signing off at each gate means that the individual involved do not feel “empowered” to make decisions with “no quick decisions” being made. As discussed earlier, the fact that conflict handling and blame are often escalated to functional heads also means that, even those who are in decision making roles feel more personal “risk” than “empowerment.”

INMAN is the anomaly as they are considered to have moderate faith in their process despite decisions being made centrally by their MD. However, as discussed in their individual case
analysis, the small size and narrow scope of the company’s operations may be a factor here, with the MD being viewed as much as a project leader as a managing director in relation to NPD. Therefore, his role in NPD at INMAN is perceived similarly to the NPD manager’s role at HEVIS.

Overall, these findings suggest that the autonomy of the decision making process does impact on the level of faith in the process, with the case with the highest level of perceived autonomy also considered to have the highest faith in the process.

A further factor considered to impact on faith in the NPD process is the presence of “collective” or shared goal setting within the NPD project team. This is only present in one case, HEVIS. Considering that it also appears to have the highest level of faith in the NPD process, it is reasonable to assume that it is a positive contributor. Many of the other organisational factors previously considered support the “collective” nature of the HEVIS’ project team. Specifically, the role of the dedicated NPD manager. This role facilitates “collective” decisions by enabling autonomy within the project team including the handling of functional conflicts. At INMAN, even though faith in the process is relatively high, the centralised nature of decision making under the MD means that he is perceived to set the goals and objectives that he then communicates to the rest of the team. As such, goals and objectives can change on a weekly basis and are not viewed as collective. The bureaucratic nature of the NPD process at FOODIS reduces the likelihood of any “collectivity” in decision making, with respondents suggesting that the only shared goal is the launch date. At BUILDIN the “solo” mentality reduces the likelihood of collective goal setting as each individual is focused on their own pursuits, rather than the success of the NPD project.

Overall, these findings suggest that collective goal setting may impact on faith in the NPD process, but would require further evidence and will be examined further in chapter 7.

One of the most interesting aspects from the analysis of these results is the impact of the level of formalisation on faith in the overall NPD process. Despite significant research suggesting a link between a more formalised process and NPD success (Hauser and Clausing, 1988; Griffin, 1992, Moenaert, et al. 1994), these findings suggest that more formalised processes do not necessarily lead to more faith in the NPD process. In fact, the company with the most structured and formalised NPD process, FOODIS, is considered to have the lowest level of
faith in the NPD process of all four cases. In contrast, the smaller firm INMAN, which has one of the least formal processes, is considered to have one of the highest levels of faith.

INMAN’s process is described as “more informal than formal”. Although several respondents suggest that it could be vastly improved with better “planning” and “deliverables”, their overall faith in the NPD process remains relatively high. This is largely due to the high level of faith they have in management, in this case their MD. The newly appointed NPD manager at HEVIS is in the process of introducing a more formal, stage-gate process for its NPD activities. Most respondents believe that this will benefit the process by making it “cleaner”, although there is some concern that it may slow down the process overall. The fact that the process is still evolving at HEVIS means that it is difficult to gauge the impact of this increased formalisation on faith in the NPD process. However, at the time of the interviews, perceptions regarding faith in the NPD process were quite high.

FOODIS already has a formal, structured stage-gate process in place. It is perceived to be very effective for the “back end” of the NPD process, the actual development of the product. However, it is not perceived to improve the quality of the “front end”, being their idea generation, screening and evaluation. Their process is generally perceived to be too “bureaucratic” with a lot of “red tape” slowing it down. The marketing specialist suggests that there should be two “streams” for NPD processes: one structured and formal for incremental changes; and another for “radical” innovation. This is particularly relevant at FOODIS where the size and scope of the organisation means that there are many products and brands requiring incremental changes to remain competitive (e.g. changes in flavours or serving size). In regards to “blue sky” innovation, they certainly have the potential and resources to develop “the next big thing”, but currently are not perceived to have the processes in place to encourage this type of development. GM R&D describes this frustration suggesting that the ultimate aim is to overhaul the front end and link it to the formalised stage gate process so that instead of “managing average ideas … we are managing great ideas.” BUILDIN also has a formal, structured stage-gate process. Although there are concerns that the more structured the process, the more time it will consume, most respondents believe that it is generally improving.
These findings suggest that although most organisations are striving for more structure within their process, the formality of the process alone is not the most important thing in the development of faith in the overall NPD process.

The final organisational factor considered in relation to faith in the NPD process is **structural flux**. In relation to faith in the NPD process, I considered structural flux in the form of changes in NPD personnel and changes in the NPD process. As per the findings regarding the relationship between changes in top management and faith in management, changes to personnel and process are also perceived to have both positive and negative effects depending on the type of change.

At HEVIS, the change of personnel again reflects the addition of the NPD manager’s role and is viewed as positive as are the changes in process that he has implemented that have been discussed earlier. This is not the case at FOODIS where the company’s mergers and acquisitions have led to many changes in both personnel and NPD processes. The personnel changes are mainly viewed as positive as they bring new knowledge and new processes to the firm. However, the merging of NPD processes has a negative impact on faith in the NPD as individuals struggle to keep up with the changes. The fact that key departments may not know the current NPD process is viewed as potentially slowing down what is already perceived to be a slow and bureaucratic process. BUILDIN has also seen significant change in process due to there being a number of general managers in recent years. This has led to an NPD process with “a twig from every general manager”. The result is reduced faith in the process as some individuals are not even aware of which process is current.

Overall it seems that change alone is not an indicator of faith in the NPD process. Changes in personnel and NPD process can have both a positive and negative impact on faith in the process depending on the nature of the change and how well it is communicated.

In summary, although formalising the process is the goal of all of the cases analysed, the level of formalisation alone does not appear to lead to higher faith in the process overall. Instead, the presence of a project leader who is seen to be “driving” NPD in regards to its resources and processes appears to be one of the most significant indicators of faith in the NPD process. Other factors considered to impact on faith in the NPD process are the autonomy of decision.
making and collective goal setting, both of which are likely to be improved by effective project leadership as seen at HEVIS.
Table 6.3: Cross-case analysis of Faith in the NPD Process

<table>
<thead>
<tr>
<th></th>
<th>INMAN (Case 1)</th>
<th>HEVIS (Case 2)</th>
<th>FOODIS (Case 3)</th>
<th>BUILDIN (Case 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Faith in the NPD Process</strong></td>
<td>Moderate</td>
<td>Moderate to High - improving</td>
<td>Relatively Low</td>
<td>Low to Moderate - improving</td>
</tr>
<tr>
<td><strong>Contributing Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership/Project Management</td>
<td>MD seen as the main driver for NPD.</td>
<td>NPD Manager perceived to be the “voice” of NPD within the business.</td>
<td>Marketing are not perceived to be the best people to manage NPD leading to conflict between the functions and higher functional identification.</td>
<td>The use of marketing as project leaders has led to conflict between the functions and higher functional identification.</td>
</tr>
<tr>
<td>Autonomous decision making within NPD</td>
<td>NO - Driven centrally by MD.</td>
<td>YES - NPD committee perceived to be able to make decisions within “gates”. Largely due to management of NPD committee by NPD Manager.</td>
<td>NO - The bureaucratic nature of the NPD process discourages autonomous decision making at an NPD level.</td>
<td>YES - There is perceived to be relative autonomy within the gates, although marketing as the project manager would like more.</td>
</tr>
<tr>
<td>Commitment to shared or “collective” goals</td>
<td>NO - Only MD perceived to have an overall view of NPD goals. Communicates them regularly but can change just as often.</td>
<td>YES - Goals perceived to be determined collectively at the NPD committee level.</td>
<td>NO - The NPD project team is not responsible for any collective decision making with the only collective goal being the launch date.</td>
<td>NO - There is not perceived to be any collective goal setting. This is largely attributed to the “solo” mentality prevalent in the organisation.</td>
</tr>
<tr>
<td>Formalised NPD process</td>
<td>NO - Perceived to be more information than formal. Most respondents believe it can be improved with better planning.</td>
<td>YES - Currently implementing a more structured, formal, stage-gate process. Perceived as an improvement. There is some caution regarding over formalising the process having the potential to slow it down.</td>
<td>YES - A structured-formal stage-gate process currently exists. It is perceived to be effective in relation to the “back end” of NPD but not for “blue sky” innovations. It is also seen as too bureaucratic, stifling decision making and innovation overall.</td>
<td>YES - A structured, formal stage-gate process currently exists and is perceived to be constantly improving. It is also seen to be quite complicated and time consuming.</td>
</tr>
<tr>
<td><strong>Contributing Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Changes in NPD process</strong></td>
<td>NO</td>
<td>YES - Significant changes to the process through the introduction of the stage-gate process and the size, structure and power of the NPD committee is perceived to be an improvement.</td>
<td>YES - The merging of companies has also led to the merging of NPD processes. This is perceived to have slowed down the process as individuals struggle to keep up with the changes.</td>
<td>YES - Several changes in General Manager in recent years has led to several changes in the NPD process. As a result many individuals do not have a clear understanding of the current process.</td>
</tr>
<tr>
<td><strong>Changes in NPD personnel</strong></td>
<td>NO</td>
<td>YES - The new NPD Manager’s position is perceived as improving the NPD process, the autonomy of the NPD committee and has led to more collective goal setting.</td>
<td>YES - The merging of companies has also led to the merger of personnel. This is perceived to lead to new knowledge coming into the company.</td>
<td>NO - There has been little change in NPD personnel, although NPD leadership has changed from R&amp;D to Marketing.</td>
</tr>
</tbody>
</table>
6.4 Organisational Identification

The final factor to consider in the development of a climate of trust in accordance with the framework is the level of organisational identification. The extent of an individual’s identification with an organisation or a group within it has been shown to have a positive effect on both climates and trust, leading to more open communication and reduced inter-functional conflict. Therefore, the framework proposes that the climate of trust will be higher within NPD if individuals identify more with the organisation or NPD team than with their functional areas.

\[ P3: \text{ A high level of organisational identification leads to a higher climate of trust within NPD} \]

Each of the four cases is examined in the aim of determining a level of organisational identification. Table 6.4 summarises the results of the individual cases. The cross-case analysis compares these results to determine which factors have the most significant impact on organisational identification and whether there is enough evidence across all four cases to support P3.

Analysis of all four cases suggests that organisational identification is difficult to define. At INMAN, organisational identification seems to increase according to the length of time within the business. Even the most cynical respondent conceded to being an “[INMAN] person”.

Only one respondent, who has been with the company for only one year, shows any signs of functional identification, though he too speaks of “loyalty” to the company.

The suggestion that organisational identification improves with length of time is partially supported by the findings at HEVIS, with the longest serving employee stating that, “I think there’s definitely a [HEVIS] sort of stamped into you it seems to be in your blood, that’s why people stay here.”. However, the strongest identification at HEVIS appears to be with their major brand which is a household name. All respondents agree that there is great pride and loyalty associated with the “badge”. Therefore, although this is a different type of identification at HEVIS of brand rather than organisational, it appears to have a similar positive impact on the overall climate within NPD.
It is particularly difficult to gain consensus regarding organisational identification at FOODIS. This may be due to the size and scope at FOODIS where a number of individuals identify with the organisation, others with their function and one with his division (i.e. juice, cheese, etc.) rather than the organisation. This divisional identification is not necessarily negative if it manifests itself in a commitment to NPD for that division, as the brand identification appears to do at HEVIS. The evidence at FOODIS partially supports the idea that length of service impacts on organisational identification with the longest serving respondent being the one displaying this divisional identification. It is important to note here, that the Operations function is the longest serving employee who displays the divisional identification. He is the only respondent not on site but based at a manufacturing facility. This could explain why his level of identification with the organisation differs from the others and is more influenced by the division represented at his site than the organisation. There is no evidence to support identification with a particular brand at FOODIS. This may be a result of the years of mergers and acquisitions that have led to many changes in the organisation overall as well as the addition of many new products and brands, making it difficult for individuals to form any type of affinity with them. Organisational identification does appear to increase at FOODIS depending on your position in the hierarchy, with both higher level positions showing high organisational identification. Conversely, many of the other respondents at the same site show high functional identification. It is evident that the level of functional identification is impacted by organisational factors. Some of the key indicators of functional identification at FOODIS are the conflict handling procedures and blame placing that tend to be escalated out of the NPD project team to the functional managers’ level.

Similar results are evident at BUILDIN. Again, length of service is not of itself an indicator of higher organisational identification with two long serving employees showing high functional identification. There is also little evidence of any divisional or brand identification. This may be due to the products being more “commodotised” than in the previous cases. The results at BUILDIN offer strong support to the findings at FOODIS that conflict handling procedures can impact on the level of functional identification. In this case too, conflicts are likely to be escalated outside of the NPD project to a functional manager’s level. This increases functional identification as individuals try to “make their boss happy”.

It is evident from these results that organisational identification is one of the more difficult components to develop, showing the difficulty in assessing a collective perception from an
affective perspective. Initial evidence suggests that organisational identification increases with the length of time individuals are with an organisation, such is the case at INMAN. However, at BUILDIN this is not the case with many long term employees showing strong functional identification. At FOODIS where all respondents are relatively new, due to the company’s significant growth in recent years, identification increases as you progress through the company’s hierarchy. At HEVIS, identification is less with the organisation and more with their single brand. This is believed to have the same positive impact on the climate of trust achieved, suggesting that the issue of identification may go beyond an identification with the organisation. However, at both FOODIS and BUILDIN where there are several divisions and a number of brands of different size and status, consistent organisational identification, divisional or brand identification is difficult to develop. Also evident from these findings is that none of the organisational factors considered aid in the development of organisational identification, providing no guidance to management as to the best way to develop a climate of trust within NPD.

Conversely, in all cases, it is evident that high levels of functional identification are not conducive to the types of behaviours required for effective NPD, supporting the work of previous researchers (Barclay, 1991; Olson, et al., 1995; Fisher, et al., 1997). There are also clear organisational factors that impact on the level of functional identification within NPD, such as procedures regarding conflict handling and blame placing. The results suggest that functional identification can be reduced if conflicts are handled within the NPD project rather than escalated to a functional manager’s level. The evidence also suggests that accountability for your actions, in the form of blame placing and personal recognition, should also be bounded by the NPD project team rather than escalated to functional managers. This reduces functional identification and perceived personal risk and may in fact lead to perceptions of perceived personal benefit as is the case at HEVIS.

In summary, these findings suggest that organisational identification is not the best construct to use for the development of a climate of trust as it is: (a) difficult to define; and (b) unlikely to be impacted by organisational factors. A better affective component to use for the development of a climate of trust is likely to be a low level of functional identification that management decisions can have some impact on.
Table 6.4: Cross-case analysis of Organisational Identification

<table>
<thead>
<tr>
<th></th>
<th>INMAN (Case 1)</th>
<th>HEVIS (Case 2)</th>
<th>FOODIS (Case 3)</th>
<th>BUILDIN (Case 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational/Brand Identification</strong></td>
<td>Relatively High</td>
<td>Relatively High BRAND identification</td>
<td>Relatively Low</td>
<td>Relatively Low</td>
</tr>
<tr>
<td></td>
<td>Identified more with their major brand than the organisation as a whole.</td>
<td>Too many brands to show any real identification. Some indication, though inconsistent, that there is identification at a divisional level.</td>
<td></td>
<td>Too commoditised to show any real identification with either brands or divisions.</td>
</tr>
<tr>
<td><strong>Functional Identification</strong></td>
<td>Relatively Low</td>
<td>Relatively Low</td>
<td>Relatively High</td>
<td>Relatively High</td>
</tr>
<tr>
<td><strong>Contributing Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of time in business</td>
<td>At INMAN organisational identification is seen to increase with the length of time employed by the business.</td>
<td>Some indication that length of time with organisation increases identification.</td>
<td>No consistent evidence to support the impact of length of time in business and organisational identification.</td>
<td>Not consistent with some long serving employees still showing high functional identification.</td>
</tr>
<tr>
<td>Position in Hierarchy</td>
<td>Not relevant to this case as most respondents show high organisational identification despite their position in hierarchy.</td>
<td>Not relevant to this case as most respondents show high organisational identification despite their position in hierarchy.</td>
<td>Some indication that organisational identification increases with position in hierarchy.</td>
<td>No consistent evidence to support the impact of hierarchy on organisational identification.</td>
</tr>
<tr>
<td>Conflict Handling</td>
<td>Conflicts kept at a work level.</td>
<td>Conflicts well managed at an NPD level, largely by the NPD manager.</td>
<td>Conflicts are often escalated to functional managers leading to higher levels of functional identification.</td>
<td>Conflicts not resolved within the NPD project but escalated to functional managers leading to higher levels of functional identification.</td>
</tr>
<tr>
<td>Blame Placing</td>
<td>Not perceived as a blaming culture.</td>
<td>Perceived to exist but to offer an opportunity for personal gain rather than personal risk.</td>
<td>Blame being placed on functional managers increases functional identification as people try to protect their own.</td>
<td>Blame placing is not escalated at BUILDIN but rather takes the form of “finger pointing”. Therefore, more likely to increase feelings of personal risk.</td>
</tr>
</tbody>
</table>
6.5 The Development of a CLIMATE OF TRUST

According to the first three propositions, the development of a climate of trust within NPD is dependent on the level of the three factors previously examined:

\[ \begin{align*}
P1: & \quad \text{A high level of faith in management leads to a higher climate of trust within NPD} \\
P2: & \quad \text{A high level of faith in the NPD process leads to a higher climate of trust within NPD} \\
P3: & \quad \text{A high level of organisational identification leads to a higher climate of trust within NPD}
\end{align*} \]

The first thing to note is that the third proposition regarding organisational identification has not been supported and that the level of functional identification is believed to be a better affective component to use for the climate of trust achieved and more likely to be impacted by organisational factors.

This conceptualisation is based on the belief that rather than trust being based on experience, or firsthand knowledge of the other party (Shapiro, at al., 1992), trust in an organisational setting (such as NPD) can rely on institutional cues that enable people to trust one another without firsthand knowledge (McKnight, et al., 1998). This research further suggests that this type of trust will be robust where perceived individual risk is low and more fragile in conditions where perceived risk is high. Therefore, in order to support the propositions, the findings regarding the individual propositions are considered alongside specific evidence from the interviews relating to the type of trust that exists within each case, the level of perceived personal risk and the overall climate achieved within NPD. Table 6.5 shows the results of this analysis for all 4 cases.

Based on the individual case analysis, the climate of trust is believed to be highest at INMAN and HEVIS. Both of these cases have moderate to high levels of faith in both management and the NPD process. They also show relatively high organisational and brand identification, and subsequently lower functional identification. Conversely, at both FOODIS and
BUILDIN, faith in both management and the NPD process are considered to be relatively low, with few signs of organisational identification and higher levels of functional identification. In both these cases the climate of trust also appears to be lower.

These findings alone suggest that the propositions are valid and that faith in management, faith in the NPD process and low functional identification at an NPD project level do impact on the climate of trust within NPD.

This conclusion is further supported by the findings regarding the level of “swift” trust, perceived risk and overall climate within NPD at each of the cases. There appears to be clear evidence at INMAN that a positive climate exists, with several respondents mentioning for example the “good atmosphere” or “healthy environment” or even just “the way they work here” as being conducive to positive behaviours in regards to open communication, conflict resolution and trust. Most respondents cannot actually identify why this climate exists but do confirm that the type of trust within this climate is more organisational than individual by describing it as “an open level of trust at the start”. This certainly suggests that trust perceptions at INMAN are based on beliefs and attitudes towards the organisation rather than individual merits as required for the foundations of “swift” trust and its inclusion in this framework.

An important element within a climate of trust is the level of perceived individual risk within NPD. According to the framework, if a climate of trust exists perceived personal risk will be low. At INMAN there is not perceived to be any personal risk associated with NPD, with all risk being viewed as a business risk. One of the key contributors to this perception is the conflict handling procedures where there is no “blaming” and things are “kept to a work level”. This further supports the idea that INMAN has developed a climate of trust within its NPD.

At INMAN, the centralised management and decision making of the MD heavily influences all aspects of the organisation including the climate within NPD. Therefore, it is interesting to compare the results from INMAN to those at HEVIS where the organisation is not only larger, but the MD is described as having a particularly decentralised approach. As is the case at INMAN, respondents find it difficult to define both climate and trust within the context of NPD. When asked about trust, all respondents at HEVIS simply say that they do
trust the other individuals involved. Clearly this is not sufficient to determine if a climate of trust exists. Further probing uncovers some of the perceived reasons for the trust. These include process factors such as the collaborative decision making within the NPD project team and collective goal setting as well as their collective pride in the final product that can be attributed to their high level of brand identification (and low functional identification). This also supports the existence of “swift” trust as all of the factors mentioned that facilitate trust are actually organisational factors rather than personal ones.

The perceived risk at HEVIS is particularly interesting. It does not support the findings from INMAN that having no perceived risk ensures the existence of a climate of trust. At HEVIS, a level of blame placing was established with individuals being held accountable for their actions within NPD. However rather than being viewed as a personal risk, respondents at HEVIS perceive it is a means of attaining personal benefits by recognising their individual contributions to NPD. This suggests that personal risk is an acceptable trade off for personal recognition within the right “climate”. This is an important finding as just as low levels of perceived individual risk may support the existence of a climate of trust within NPD, high perceived levels of potential personal benefit or gains may have the same effect.

At FOODIS, where faith in management and faith in the process is relatively low and functional identification is higher, the climate of trust is considered to be lower than in the other two cases. This is supported by the findings regarding climate, trust and perceived risk. When asked about the climate within NPD, the responses range from “tough” and “hard” to “borders on frustration” and “tension”. These are not positive indicators that a climate of trust exists. It is difficult to gain any consensus on the level of trust within NPD at FOODIS and there is no evidence that organisational or “swift” trust exists at all. Although there is some evidence supporting competency-based trust, this too is inconsistent; with some functions not feeling like their competency is trusted, while others do not trust in the competency of other functions. These findings do not support the existence of a climate of trust at FOODIS.

This premise is further supported when considering individual risk. As previously discussed, one of the reasons for the higher functional identification at FOODIS is the nature of conflict handling and blame placing which is escalated beyond the NPD project team to the functional managers. This escalation increases the perceived individual risk associated with NPD at
both the project team and functional managers’ level, leading to risk averse behaviours that are not evidence of the existence of a climate of trust or successful NPD overall.

At BUILIDIN, further evidence exists to support the impact of organisational factors on the climate of trust achieved. All respondents struggled to define the climate at BUILIDIN, with one believing that it was project specific, with those supported by top management having more “momentum” than others. This suggests that the climate is driven by the organisation, but that it is inconsistent at BUILIDIN. The findings on trust are more conclusive with no evidence of “swift” trust. The main issue regarding trust at BUILIDIN is who will get the “kudos” for the NPD results. There are strong perceptions that the project managers (marketing) take all the credit for the results on one hand, but are happy to “point the finger” at individuals if things go wrong. As a result, NPD results at BUILIDIN are not perceived to be “team results”. This situation also increases the perceived personal risk within NPD at BUILIDIN. In contrast to HEVIS, there is no reciprocal personal benefit associated with NPD as the perception is that there is not “credit for everything you’ve done”. These findings also reduce the quality of communication within NPD as people “hold off” in order to get “individual credit.” The result is a “solo” mentality that is not representative of a climate of trust and certainly not conducive to collaborative behaviours. These issues are further exacerbated by the conflict handling procedures that again are escalated through the functional managers encouraging functional rather than organisational identification.

The findings across all four cases regarding their climate of trust clearly shows that the organisations considered to have developed a climate of trust, INMAN and HEVIS, have higher levels of both faith in management and faith in the NPD process than those companies that have not developed a trusting climate, supporting P1 and P2. It is also apparent that low functional identification does impact on the climate of trust and that organisational factors can influence the level of functional identification within NPD, supporting the modified P3. All these findings support one of the fundamental bases of this study, that the development of a climate of trust is less dependent on interpersonal factors and more dependent on a variety of organisational factors at both an organisation and NPD project level.
Table 6.5: Cross-case analysis of the development of a CLIMATE OF TRUST

<table>
<thead>
<tr>
<th></th>
<th>INMAN (Case 1)</th>
<th>HEVIS (Case 2)</th>
<th>FOODIS (Case 3)</th>
<th>BUILDIN (Case 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Climate of Trust</strong></td>
<td>Relatively High</td>
<td>Relatively High</td>
<td>Relatively Low</td>
<td>Relatively Low</td>
</tr>
<tr>
<td><strong>Propositions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faith in Management</td>
<td>Moderate to High</td>
<td>Relatively High</td>
<td>Relatively Low</td>
<td>Low to Moderate</td>
</tr>
<tr>
<td>Faith in the NPD Process</td>
<td>Moderate</td>
<td>Moderate to High</td>
<td>Relatively Low</td>
<td>Low to Moderate</td>
</tr>
<tr>
<td>Organisational/Brand Identification</td>
<td>Relatively High</td>
<td>Relatively High BRAND identification</td>
<td>Relatively Low</td>
<td>Relatively Low</td>
</tr>
<tr>
<td>Functional Identification</td>
<td>Relatively Low</td>
<td>Relatively Low</td>
<td>Relatively High</td>
<td>Relatively High</td>
</tr>
<tr>
<td><strong>Supporting Evidence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational (“swift”) Trust</td>
<td>YES - Trust exists independently of individual relationships as evidenced by, “there is an open level of trust at the start”.</td>
<td>YES - Trust exists and is perceived to be based on process factors such as the collaborative nature of the decision making and collective goal setting as well as their strong brand identification.</td>
<td>NO - Trust is not evident in any form There is even a lack of competency-based trust with some functions not feeling like their competency is trusted, while others do not trust in the competency of others.</td>
<td>NO – Trust is diminished by the perception that NPD results will not be viewed as “team results”.</td>
</tr>
<tr>
<td>Perceived Personal Risk</td>
<td>NO - There is no perceived risk associated with NPD. Mistakes or conflicts are viewed as a business risk not a personal one.</td>
<td>NO</td>
<td>YES - Risk is perceived to exist at both a personal and functional level. This leads to risk averse behaviours increased functional identification.</td>
<td>YES – There is finger pointing when mistakes are made.</td>
</tr>
<tr>
<td>Perceived Personal Benefit</td>
<td>NO</td>
<td>YES - Although individuals do feel personally responsible for their contributions to NPD, they perceive this to be more likely to result in personal gains than personal risks.</td>
<td>NO – There are no perceived personal benefits from involvement in NPD.</td>
<td>NO – Although you are personally blamed for mistakes, you do not receive reciprocal credit for a job well done.</td>
</tr>
</tbody>
</table>
6.6 NPD Outcomes

A key objective of this study seeks to expand previous research and shift the focus from “integration” as a desired outcome of cross-functional relationships within the NPD process to “collaboration” and collaborative behaviours. The collaborative behaviours considered are based on the work of previous researchers and include bi-directional communication (Mohr and Nevin, 1990; Fisher, Maltz, et al. 1997, Maltz and Kholi, 1996), mutual accommodation (Fisher, Maltz et al. 1997) and functional conflict (Menon, et al., 1996, Souder, 1977, 1981, 1988; Moenaert and Souder, 1990). These behaviours have been shown to lead to more successful NPD overall (Kahn and Mentzer, 1998; Jassawalla and Sashittal 1998; Song, et al., 2000). Therefore, the final proposition to be considered will be whether the development of a climate of trust, or otherwise, impacts on the collaborative behaviours of the individuals involved in NPD.

**P4: A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.**

Each of these behaviours will be considered across all four cases. Table 6.6 summarises the results of the individual cases. The cross-case analysis will then consider if there is enough evidence across all for cases to support P4.

If P4 is correct, at INMAN and HEVIS where the climate of trust is believed to be relatively high, all three collaborative behaviours: bidirectional communication; mutual accommodation and functional (as opposed to dysfunctional) conflict; should exist. Conversely, at FOODIS and BUILDIN where the climate of trust is believed to be low, these behaviours should be less evident.

The first behaviour to be examined is that of bi-directional communication. This specifically refers to the nature of the communication rather than the frequency of it. Communication is believed to be bi-directional if it is a “two-way process”. If we consider this in relation to the four cases studied, communication at INMAN is certainly frequent with all respondents commenting on the morning tea and lunch discussions. Although it is clear in this case that communication is largely driven by the MD, it still appears to be bi-directional with respondents feeling that they have for example “both the chance and respect to put forward
their views”. This supports the findings in this case that, despite the centralised management style of the MD, a climate of trust does exist. Similar behaviours are apparent at HEVIS. Again, it is evident that communication is frequent. There may not be official morning teas etc., such as is the case at INMAN, but all respondents agree that there is considerable informal communication outside the weekly meetings. The nature of the communication also appears to be bi-directional with respondents suggesting that information is readily available with “no real secrets there”.

Communication at FOODIS is much more problematic. Like HEVIS, it appears that there is considerable informal communication outside of NPD project meetings. However, rather than this supporting bi-directional communication, it appears that in the case of FOODIS it hinders it, with suggestions that the informal communications lead to people not knowing what information is “relevant” to the NPD team. Respondents suggested that because of this you have to go and ask for information rather than it being freely available to you. This is further exacerbated by the idea that even asking for information is discouraged: individuals no longer feel that they have the freedom to “just go up and ask somebody a question”. There is even the suggestion that “I don’t think people actually know what shared is”. A further source of this non-collaborative communication behaviour appears to be the conflict between marketing, as the project managers, and the other individuals involved in NPD with a “I hear you, but I don’t hear you” attitude apparent between functions. BUILDIN also exhibits similar communication behaviours where there is a considered to be a “fair amount of keeping things to ourselves” and even some discussion that information is “appropriately withheld”.

These results further reflect the “solo” mentality evident at BUILDIN where people are perceived to “hold back” information in order to gain “individual credit”.

The results across all four cases suggest that a higher climate of trust is more likely to lead to the first collaborative behaviour of bi-directional communication.

The next behaviour to consider is that of mutual accommodation which considers that all individuals involved in NPD acknowledge the interdependencies that exist by showing an understanding of the needs, concerns and perspectives of the other functions. It is difficult for individuals to put this behaviour into words. At INMAN it is suggested that each function is sensitive to the needs of others and that the overall environment is a “pretty cooperative” one. This is again evident at HEVIS where initial responses describe the behaviours of the
individuals involved as “effective” or “collaborative”. There is further support of mutual accommodation in the suggestion that there is a “strong sense of supporting one another and not seeing people fall”. The addition of the NPD Managers’ role is also seen to encourage this behaviour, with his role seen to be to understand the issues of all departments involved and communicate them within. These findings suggest that there is evidence of mutual accommodation type behaviours at both INMAN and HEVIS.

Conversely, at FOODIS it is suggested that there is “no incentive to cooperate”. In fact, when asked how individuals respond to issues within other functions the responses include “not particularly well” and further suggest that it may result in “escalation and some recriminations”. These behaviours are clearly not aligned with mutual accommodation. The “solo” mentality associated with BUILDIN also appears to be in opposition to the types of behaviours required to achieve mutual accommodation.

Again, the results across all four cases suggest that mutual accommodation is more likely to exist in situations where a climate of trust has been developed.

The final behavioural outcome to be examined is functional (as opposed to dysfunctional) conflict. NPD performance is believed to be enhanced by interactions between the diverse voices and opinions of the various specialists involved. The nature of the interactions between the individuals involved has been discussed at various stages throughout the analysis. At INMAN, conflicts are acknowledged to exist, but are not considered to get out of hand or be taken personally. Individuals also believe that they have ample opportunity to express their views and that they will be respected. Both these situations suggest that conflict at INMAN is considered “functional”. A similar situation again exists at HEVIS where it is acknowledged that conflicts exist but that they are well managed within the NPD project team. It is actually described by one respondent as “good conflict”.

This type of “good conflict” is not evident at FOODIS. As previously discussed, there is certainly evidence that conflict exists at FOODIS, both due to conflicting evaluation criteria and between marketing, as NPD project managers, and the other functional involved. The resultant behaviours are a reluctance to “give their opinion” for fear of being “shot down”. It has also been discussed that conflicts are not handled within NPD at FOODIS, but more likely to be escalated to a functional manager’s level. These functional heads have been seen to feel
high personal risk and are therefore generally cautious in their responses and behaviours. This would suggest that conflict within NPD at FOODS is more dysfunctional as it is most likely to lead to the removal of decision making from the NPD project to a higher, more cautious level in order to minimise the personal risk involved. A similar situation exists at BULDIN where conflicts are also escalated outside the NPD project. This coupled with their “solo” mentality and high levels of perceived personal risk tend to result in the adoption of risk averse behaviours.

The results across all four cases again suggest the development of a climate of trust is more likely to lead to functional, as opposed to dysfunctional conflict.

These findings show that all three collaborative behaviours measured are more prevalent in the organisations that have developed higher climates of trust, INMAN and HEVIS that those that have not, FOODIS and BULDIN supporting P4 that developing a climate of trust within NPD leads to a higher level of collaborative behaviours and therefore (by implication) NPD success.

Chapter 7 will discuss the theoretical and management implications of these findings.
Table 6.6: Cross-case analysis of NPD Outcomes

<table>
<thead>
<tr>
<th>Climate of Trust</th>
<th>INMAN (Case 1)</th>
<th>HEVIS (Case 2)</th>
<th>FOODIS (Case 3)</th>
<th>BUILDIN (Case 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bi-directional Communication</strong></td>
<td>YES – despite communication being driven centrally by MD, all respondents feel they have the “chance and respect” to put forward their ideas.</td>
<td>YES – both formal and informal communication is perceived to take place regularly with information viewed as being “readily available” with “no real secrets”.</td>
<td>NO – both formal and informal communication exists. However, informal communication leads to poorer information sharing as individuals feel they need to “ask” for information but cannot “just go up and ask”. Formal communication is affected by cross-functional conflict with an “I hear you, but I don’t hear you” mentality.</td>
<td>NO – There is perceived to be “a fair amount of keeping things to ourselves” in order to gain “individual credit”.</td>
</tr>
<tr>
<td><strong>Mutual Accommodation</strong></td>
<td>YES – all respondents agree that the environment within NPD is “cooperative.”</td>
<td>YES – There is perceived to be a “strong sense of supporting one another and not seeing people fall” This is supported by the NPD manager whose role is to understand and communicate issues between functions.</td>
<td>NO – Not perceived to be any “incentive to cooperate”. Likely “escalation and recrimination” for individuals who do not meet deadlines, etc.</td>
<td>NO – the “solo” mentality evident at BUILDIN is not conducive to these types of behaviours.</td>
</tr>
<tr>
<td><strong>Functional Conflict</strong></td>
<td>YES – there is perceived to be the “chance and respect” to put forward even dissenting views with no perceived personal risk associated with it.</td>
<td>YES – conflicts are acknowledged to exist and be well managed within the NPD project team. They are perceived to be “good conflict.”</td>
<td>NO – Escalation of conflicts to a functional manager’s level is likely to lead to the removal of decision making from the NPD project to a higher level to minimise the personal risk.</td>
<td>NO – Escalation of conflicts outside NPD project, a solo mentality and high personal risk lead to generally risk averse behaviours.</td>
</tr>
</tbody>
</table>
CHAPTER 7: THEORETICAL AND PRACTICAL CONTRIBUTIONS

7.1 Introduction

The aim of this study is to address the perceived gaps in the literature regarding the role of trust, at an NPD project level, on the development of the collaborative behaviours between functional specialists required for NPD success. After reviewing the literature, I developed a framework (Figure 7.1) which provides a better theoretical lens in which to examine the interface between functional specialists during NPD projects and suggests mechanisms to manage this interface. The framework initially developed for this thesis considers that the climate of trust is determined by the perceptions of the individuals involved in NPD regarding the level of “swift” trust in the NPD project team. The framework also incorporates the risk perceptions of the individual members which are evident in management models but have been largely ignored by marketing theorists to date. The model further suggests that at an NPD project level the collective perceptions of the members regarding trust in the organisation (faith in management) and the NPD team (faith in the NPD Process) as well as their organisational identification (affective trust) will also impact on the climate of trust. The final component of the framework suggests that the development of a climate of trust will result in the desired outcomes of collaborative behaviours and NPD success.

Figure 7.1: Initial Theoretical Framework for Developing a Climate of Trust between Cross-Functional Specialists within NPD
Underpinning this framework is the belief that trust between members working on NPD projects needs to become less dependent on interpersonal factors and more dependent on a variety of organisational factors. Therefore, organisational factors at both a management and NPD process level are considered in relation to faith in management, faith in the NPD process and organisational identification. Although previous marketing researchers have acknowledged the importance of these organisational factors, this is the first to consider them specifically as they related to the development of a climate of trust within NPD.

The cross-case analysis in chapter 6 compares the results of all four cases to examine whether the constructs developed for the framework developed in chapter 3 are viable determinants of the climate of trust within NPD and whether the propositions (Table 7.1) are supported or refuted by the findings. This chapter will discuss these results. Firstly the salience of the three constructs: faith in management; faith in the NPD process; and organisational identification will be determined. Once this is established, I will determine the organisational factors that impact on these three constructs. The key variables previously associated with integration and NPD success used in this analysis provide further evidence for the generalisability of the model to NPD work. I will also examine the components of the climate of trust and the relevance of perceived risk. Finally, I will determine whether the existence of a climate of trust does in fact impact on the collaborative behaviours that have been shown to lead to NPD success. The results will be used to refine and expand the original conceptual framework to incorporate all the relevant findings. The modified framework (Figure 7.6) allows a more theoretically generalisable approach to the study of NPD interactions between participants.

Table 7.1: Propositions from Theoretical Framework developed in Chapter 3.

<table>
<thead>
<tr>
<th>No</th>
<th>Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P1</strong></td>
<td>A high level of faith in management leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td><strong>P2</strong></td>
<td>A high level of faith in the NPD process leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td><strong>P3</strong></td>
<td>A high level of organisational identification leads to a higher climate of trust within NPD</td>
</tr>
<tr>
<td><strong>P4</strong></td>
<td>A high climate of trust within NPD leads to a higher level of collaborative behaviours and NPD success.</td>
</tr>
</tbody>
</table>
7.2 Faith in Management

The cross-case analysis supports P1 that a high level of faith in management leads to a higher climate of trust. The results show the organisational factors that are most likely to improve the level of faith in management are demonstrating NPD priority through the allocation of appropriate and dedicated resources. The impact of having dedicated NPD resources is best reflected at HEVIS where the addition of an NPD manager has improved perceptions regarding most aspects of NPD within the organisation, but firstly is viewed as a demonstration of the priority given to NPD within the firm. At INMAN, even though the general perceptions regarding NPD priority and resource allocation are quite positive, there is a belief that it could be further improved with the addition of dedicated NPD resources rather than the ad hoc approach currently used. In all cases, the allocation of resources was perceived to be fair as long as it could be “justified” by the NPD project team. However, at FOODIS, despite ample and “fluid” resources, they believe that many new products fail as a result of a lack of support post launch. This indicates that “appropriate” resource allocation refers to the allocation of resources during all stages of the NPD process. These finding are consistent with previous NPD studies where the priority of NPD has been shown to impact on the level of collaboration achieved (Jassawalla and Sashittal, 1998). The current study suggests that demonstrated NPD priority may impact on collaboration by improving faith in management. The importance of resource allocation is also supported in the literature with previous studies showing that management can prove their support for NPD through their appropriate resources, structures and processes (Barczak, Griffin, Kahn, 2009; Cooper and Kleinschmidt, 2007).

The results also suggest that evaluation criteria specific to NPD would be beneficial in the development of faith in management and a climate of trust. The evaluation system used in NPD was not considered in the initial framework. It emerged from the research, specifically from the interview questions on reward systems. None of the four cases in this study use any type of rewards or incentives that are specific to NPD. There is also little enthusiasm, and even some cynicism shown for the inclusion of any such incentives. However, what did emerge is that in all four cases examined evaluation criteria was set individually and in many cases did not include any NPD component. In fact, it was not unusual for individuals involved in NPD to have completely opposing evaluation criteria. For example, operations functions often had key performance indicators subject to efficiencies of operations, which of
course is counter to the operation requirements of developing a new product. This created conflict between operations and other functions that is not conducive to the development of faith in management or an overall climate of trust within NPD. There was general consensus that a collective evaluation criteria specific to NPD would be beneficial to NPD.

In the exiting literature, the nature of the evaluation criteria used has been shown to improve cross-functional integration (Song, Montoya-Weiss and Schmidt, 1997; Maltz and Kohli, 2000; Leenders and Wierenga 2002). Therefore although it does not currently exist within these four cases, the findings suggest that the inclusion of an NPD specific evaluation criteria would be beneficial to the development of faith in management and the overall climate of trust.

Previous research suggests that by replacing individual evaluation criteria with a universal, market-oriented reward system, conflicting priorities are reduced, encouraging conformity of actions and cooperative behaviours within the group (Griffin and Hauser, 1996; Sethi, 2000). This type of reward system, though still individual, recognises employees from all functional areas for advancing the firm’s understanding and fulfillment of customer needs. The aim of these programs is to pull disparate areas of the firm together towards a common goal (Jaworski and Kohli, 1993). There is also evidence that rewards systems have a significant impact on group activities, particularly in relation to collective tasks such as those required for NPD. A reward system that is supportive of groups has also been shown to heighten motivation within a group, whereas a poorly designed or structured system can undermine and erode motivation at a group level (Nakata and Im, 2010).

The importance of reward systems is not evident in these cases. As previously mentioned not only is there no evidence of NPD specific rewards or incentives in the four cases examined, there is also no enthusiasm for them from the individuals involved in NPD. This suggests that offering incentives and rewards may not be usual in an Australian setting and that, at least in these four cases, it does not impact on the level of faith in managements or the climate of trust within NPD. Further research is required to examine whether these four cases are an anomaly, or whether they are truly representative of Australian organisational culture.

There are a number of other organisational factors considered for the study that did not appear to have any impact on the level of faith in management. One of these factors is conflict
handling. The cross case analysis shows that conflict handling procedures do not impact on the level of faith in management. However, they do impact on other factors relevant to the climate of trust achieved. Developing conflict handling procedures that encourage the resolution of conflicts at a project level reduces the level of functional identification which has a positive impact on the climate of trust. Previous research suggests that the conflict handling processes used within an organisation can impact on cross-functional cooperation as well as individual behaviours (Souder, 1981; Maltz, 1997; Ayers, at al, 1997; Song, et al., 2000). Recent trust research also shows that cooperative conflict management promotes team trust in teams (Fulmer and Gelfand). As the reduction of functional identification is considered to be important for the development of a climate of trust, even though conflict handling does not impact on faith in management, it remains an important variable, supporting the existing literature.

A similar situation exists in relation to blame placing. The findings of this thesis show that reducing blame placing within NPD does not have a consistent impact on faith in management. However, it does appear to reduce functional identification and perceived personal risk, both of which are indicators of the development of a climate of trust. Blame placing has not specifically been considered within the NPD literature, however, the related construct of a tolerance for failure has been shown to impact on the “environment” within NPD and the behaviour of the individuals involved in it (Gupta, et al., 1986). Therefore, the results of this study support the existing literature and its conclusion regarding tolerance to failure and suggests that although blame placing does not necessarily impact on faith in management, it remains an important organisational factor to be considered in the development of a climate of trust.

The final organisational factor considered relates to “structural flux”. This thesis extends the concept beyond an examination of the “rate of change” to include the amount or type of change that will have the most impact on the climate of trust within NPD. Specifically, changes in top management are considered in the analysis of faith in management and changes in NPD strategy and personnel are considered in relation to faith in the NPD process.

There is a considerable amount of change in top management evidenced in all four cases. However, the results show that they are viewed both positively and negatively by the respondents depending on the situation. This suggests that change in and of itself does not
necessarily have a negative impact on faith in management or the development of a climate of trust overall. However, there is evidence to suggest that one of the issues associated with change is its communication within the organisation. Where changes are not “filtered through” to all the individuals involved, this leads to a diversity of perceptions that is not conducive to the development of a climate of trust.

Previous research has shown that “structural flux” or “the rate of change within an organisation” (Maltz, 1997, p87) increases inter-functional rivalry and inhibits the use of market information (Maltz, et al., 2001) and increases conflict between functions (Maltz and Kohli, 2000). While these authors suggest that structural flux will have a negative effect on the behaviours of the individuals involved in NPD, they do not describe the amount or type of change that will have the most impact. The results of this study do not support these findings and show that change alone, at least in relation to changes in top management will not impact on faith in management or the climate of trust achieved.

Figure 7.2 provides a summary of the organisational factors found to impact on faith in management.

**Figure 7.2: Impact of Organisational Factors on Faith in Management.**

<table>
<thead>
<tr>
<th>Demonstrated NPD Priority</th>
<th>Faith in Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate and Dedicated Resource Allocation</td>
<td></td>
</tr>
<tr>
<td><em>NPD Specific Evaluation Criteria (NEW)</em></td>
<td></td>
</tr>
<tr>
<td>Conflict Handling</td>
<td>Functional Identification</td>
</tr>
<tr>
<td>Blame Placing</td>
<td></td>
</tr>
</tbody>
</table>

**7.3 Faith in the NPD Process**

There is also support for P2 that the higher the level of faith in the process, the higher the climate of trust achieved. The single most important factor to impact on faith in the NPD process appears to be the nature of NPD project leadership. The thesis findings suggest
that the use of functional specialists within the team as team leaders (in most cases marketing) has the potential to increase cross-functional conflict and functional identification while decreasing trust and cooperative, supportive behaviours. Conversely, where dedicated NPD project managers are used, both faith in the NPD process and the climate of trust appear to be higher. This finding was unexpected and not considered in my initial framework but emerged from the data analysis.

Recent best practice research has found that NPD projects are most likely to be led by either marketing or R&D (Barczak, Griffin, Kahn, 2009) suggesting that the cases analysed are “typical” in regards to NPD project leadership. There is extensive literature on the nature of leadership within project teams that supports its impact on the climate achieved. Studies have found that transformational leadership, which stresses cooperation, group satisfaction and constructive interpersonal relations is positively associated with increased citizenship behaviours and success within project teams (Aronson and Lechler, 2009) as well as the development of managerial trust (Dayan, et al., 2009). The impact of the project leader on the development of a climate of trust is further supported by Webber, 2002. She specifically examines the issue of “swift trust” in relation to NPD teams and proposes that the team leader is viewed as an agent for building quick trust in NPD teams, creating a team “climate for trust” that will improve team effectiveness. Fulmer and Gelfand (2012) also show that project leaders who convey collective messages and team missions increase team trust in teams (p 1195) The thesis findings support the existing literature suggesting that project leadership is an important factor in faith in the NPD process which in turn impact on the development of a climate of trust. My findings further indicate that leadership is more effective if it is in the form of a dedicated NPD project leader as opposed to a functional member of the NPD team such as marketing.

Other organisational factors believed to impact on faith in the NPD process are the autonomy of decision making within the project team and their commitment to “collective” goals. These two factors are related in that if the project team runs relatively autonomously they will be more likely to share decisions regarding goals as well. The importance of these factors is based on their existence at only one of the cases, HEVIS, believed to have the highest level of faith in the process. It is also clearly supported by the existing literature.
Studies have shown that perceived ownership of the decisions by the individuals involved in NPD has been associated, at least at a conceptual level, with increased collaboration (Olson, et al., 1995; Jassawalla and Sashittal, 1998). When decision making is in the hand of the NPD project participants, they are not only more likely to interact (Ayers, et al., 1997), but the interactions will be more effective in developing trusting behaviours (Gillespie and Mann, 2004) and collaboration (Cordon-Pozo, et al., 2006) as well as improving the overall climate (Mohr and Nevin, 1990). Conversely, centralised decision making has been found to increase inter-functional conflict (Barclay, 1991) and inhibit inter-functional integration (Gupta, et al., 1986; Ayers, et al., 1997). Integrated NPD goals have been found to improve the amount of involvement between the functional specialists (Ayers, et al., 1997), lower functional identification (Fisher, et al., 1997) increase collaboration (Kahn, 1996) and increase trusting behaviours and team effectiveness (Gillespie and Mann, 2004). Team member autonomy and decision making have also been shown to be a consequence of team trust in teams (Fulmer and Gelfand, 2012) suggesting that if a process that encourages autonomy and team decision making is established it should also improve team trust in teams.

I believe that the autonomy and collective goal setting evident in this case further reflects the importance of NPD project leadership as HEVIS is also the only firm with a dedicated NPD project manager. The addition of his role strongly influenced the perceptions regarding autonomy and the collective nature of decision making at HEVIS. Therefore, the situation within HEVIS coupled with the existing literature suggests that the autonomy of decision making within NPD and a commitment to “collective” goals increases the level of faith in the NPD process.

It is also evident from these results that the level of importance of NPD project leaders may need to be recognised. There is evidence to suggest that effective NPD leaders require support and autonomy in order to focus team member activities towards clear goals and generate enthusiasm among team members (Barczak and Wilemon, 1992). Despite the importance of this role, recent best-practice research that suggests that NPD leadership is neglected as a means of improving NPD performance with only 36% of people in project management roles receiving training (Barczak, et al., 2009).

The results in this thesis indicate that the addition of a dedicated NPD project manager increases, perceived autonomy, collective goal setting and overall faith in the NPD process,
all of which contribute to the development of a climate of trust. This coupled with the best practice literature suggests that more importance needs to be placed on the allocation and training of NPD project managers.

A surprising finding is that the level of formalisation within the process did not appear to have any particular impact on faith in the NPD process. Although respondents in all cases agree that there is a need for a certain amount of structure in order to improve NPD efficiency, it does not seem to impact on faith in the process with the case with the least formal process having a higher level of faith than the case with the most formal structure.

Previous studies have found that more formalised interactions within NPD improve information transfer (Moenaert and Souder, 1990), reduce and prevent conflict (Barclay, 1991; Maltz and Kohli, 2000), lower functional identification (Fischer, Maltz, Jaworski, 1997) and improve overall NPD performance (Moenaert, et al., 1994; Ayers, et al., 1997; Cooper and Kleinschmidt, 2007). These benefits explain why most organisations continue to strive for more structure within their process. The findings from my thesis do not support, however, that formality of the process alone is an important factor in the development of faith in the overall NPD process.

It again appears that structural flux is not a significant factor impacting on faith in the NPD process. This thesis examined change in regards to NPD personnel and strategy as most likely to impact on perceptions regarding faith in the NPD process. The results are similar to those for faith in management, showing both positive and negative effects depending on the type of change.

In summary, the findings regarding the organisational factors considered in relation to faith in the NPD process offer both support and deference to the existing literature. Figure 7.3 provides a summary of the organisational factors found to impact on faith in the NPD process.

**Figure 7.3: Impact on Organisational Factors on Faith in the NPD Process.**
7.4 Organisational Identification

The results regarding P3 that the higher the organisational identification, the higher the climate of trust achieved are not supported by the cross-case findings. The findings for this construct could not be replicated across all four cases. Organisational identification may be more likely to exist in smaller firms and does appear to have a positive impact on the climate of trust achieved at INMAN. However, in the larger firms, rather than achieving organisational identification, brand identification may have just as significant an impact as is evident at HEVIS. However, the existence of a strong brand that employees identify with does not always exist. In an organisation with many products and brands, such as FOODIS and BUILDIN identification is more difficult to achieve, with some individuals identifying with the organisation, while others identify with their division.

Although the existing literature suggests that organisational identification has a positive impact on the organisational climate leading to more open communication and reduced inter-functional conflict (Barclay, 1991), the results of this thesis highlight the difficulty in defining and determining the nature of organisational identification. The lack of consistency as to the type of identification that exists makes it difficult to confirm P3 in its current form. It is also not evident from the analysis what organisational factors may improve the level of organisational identification. Length of time with the business should improve organisational identification, but again this is not necessarily replicable in an organisation that is new or growing rapidly. This leads me to conclude that organisational identification is not the most appropriate construct for the development of a climate of trust.

The multi-level analysis of trust required for this thesis also made it difficult to measure organizational identification. As is evident from the findings, identification is also a multi-level construct. It is suggested that identification with the team is required for individual level trust in teams, while organizational identification is more important when considering individual level trust in the organisation or organizational trust in organisations (Fulmer and Gelfand, 2012). They also highlight the difficulty in assessing affective components at high levels of analysis such as at a team level due to team dynamics and organizational processes (Fulmer and Gelfand, 2012). This confirms the finding that organizational identification is not the most viable for this study.
What is consistently evident from the analysis is that high functional identification is detrimental to the development of a climate of trust. In all cases where functional identification is higher, the climate of trust is lower. This supports the existing literature that contends that lower relative functional identification (RFI) improves the quality of information transfer and the overall cross-functional relationship (Fisher, et al., 1997).

The findings further suggest that there are organisational factors that may help to reduce functional identification. One factor found to impact on functional identification is the conflict handling procedures used within NPD. In the cases where conflicts are escalated to functional managers or higher, functional identification increases, personal risk is perceived to be higher, and individuals at both levels are more likely to engage in risk averse behaviours. Therefore, although conflict handling procedures were not found to impact on faith in management as initially suspected, it appears that they have a significant impact on functional identification and the development of a climate of trust. This is further supported by Fulmer and Gelfand (2012) who show conflict management as an antecedent of team trust in teams.

A similar situation is found in relation to blame placing. Again, this factor is not considered to impact on the level of faith in management as previously expected. Instead it is believed to increase functional identification, heighten perceived personal risk and increase risk averse behaviours, particularly if blame is escalated to a functional managers’ level. Conversely, at HEVIS, although there is evidence of blame placing, it is viewed by all respondents as a way of improving overall performance. Rather than increasing their perceptions of personal risk, all respondents agree that even though they feel personally responsible for their component within the NPD project, this is seen as a means of deriving personal benefits and being recognised for their contribution. Therefore, just as blame placing may increase functional identification, recognition for individual work within NPD may reduce it.

These findings lead me to conclude that the level of functional identification may be sufficient for the development of a climate of trust.

Recent research however has defined another form of identification, related to organisational identification. Superordinate identification refers to the extent to which members identify with the group, are committed to the overarching goals, and have a stake in collective success or failure (Nakata and Im, 2010). Superordinate identification has been described as helping
NPD teams to unify around tasks instead of functions (Brockman, et al. 2010). Superordinate identification is in essence the opposite of “relative functional integration (RFI)” as defined by Fisher, et al. (1997), expanding on their theory by measuring the level of identity within NPD with the project team rather than the function. Nakata and Im (2010) have empirically shown that superordinate identification has a positive impact on cross-functional integration. It has also been conceptually linked to NPD team cohesiveness and satisfaction through increased team commitment and cooperation (Brockman, et al. 2010). Given that the definition of superordinate identification actually incorporates some of the factors that this thesis has shown to impact on the development of a climate of trust, such as collective goal setting; it may be an appropriate construct to use for this framework. However, my analysis does not specifically consider superordinate identification and I therefore have no evidence that it exists or otherwise in any of these cases. Further, I suggest that the complex nature of this construct would also make it difficult to assess. Therefore, I propose that based on my findings the most appropriate affective component to consider for the development of a climate of trust is lower functional identification in line with Fisher, at al. (1997) and that the proposition should be revised to read:

\[
P3: \text{A low level of functional identification leads to a higher climate of trust within NPD}
\]

Figure 7.4 represents the organisational factors that will impact on the level of functional identification

**Figure 7.4: Impact on Organisational Factors on Level of Functional Identification**
7.5 The Climate of Trust

The findings relating to trust show the complexity of measuring trust in an organisational setting. The model developed for this thesis represents a multi-level approach to trust analysis. Firstly it examines trust at an interpersonal level with the referent as the NPD team. As is evident in each case examined, most individuals initially respond to questions on trust in individuals and require probing in order to establish whether any organisational or “swift” trust exists in the NPD team.

The second level of trust examined is NPD project level trust in the NPD team and the organisation as a whole. In the organisations where a climate of trust is believed to exist, it is evident that trust is based not on experience with specific individuals, or the competence of the individuals involved, but on organisational factors such as the “collective” nature of decision making, goal setting and achieving team results. These results confirm the impact of NPD project level trust, on the development of “swift” or “institution-based” trust within NPD and that it can be developed through organisational factors.

A further element of the climate of trust examined is the level of perceived risk. It is certainly evident that there is a higher level of personal risk associated with the organisations that have achieved lower climates of trust. This perceived risk is shown to lead to risk averse behaviours that are considered to be less collaborative. However, the firm with the highest climate of trust also has a level of perceived individual risk. Within this firm, HEVIS, the personal element is often associated with the perceived potential personal benefits to be made rather than the risk associated with their involvement in NPD. Although this cannot be replicated across all four cases, it suggests that a perceived individual benefit or gain may counter the impact of perceived personal risk on the level of trust achieved.

These findings are also supported by both trust and NPD theorists. Trust in an organisation setting, such as the “swift” trust described here is believed to be more robust where perceived individual risk is low (Meyerson, et al., 1996; McKnight and Webster, 2001; Patterson, et al., 2005). Recent studies regarding climates within NPD provide evidence of the impact of a procedural justice climate on its members, suggesting that managers can develop this climate by establishing a psychologically safe environment, where team members’ collective perceptions regarding the fairness of the procedures used in making decisions about project-
related activities and outcomes can interact without fear of being “punished” (Akgun, et al., 2010). While Webber, 2002 specifically considers the development of a climate of trust as essential for team success, her conceptualisation is limited to leadership actions required and she acknowledges the need to expand this to include other organisational factors that may have an impact. In the current study these organisational factors are used as a focal point for the development of the appropriate perceptions required for the development of a climate of trust.

This suggests that that the framework is valid and that within a climate of trust, components of “swift” trust are evident along with low levels of perceived personal risk. The findings further support the addition of high levels of perceived personal benefit or gain as an indicator of a climate of trust. Figure 7.5 represents a summary of these findings.

**Figure 7.5: Dimensions of a Climate of Trust within NPD**

<table>
<thead>
<tr>
<th>CLIMATE OF TRUST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of “swift” Trust</td>
</tr>
<tr>
<td>Level of perceived individual risk or benefit</td>
</tr>
</tbody>
</table>

The final objective of the study is to determine the impact of the development of a climate of trust on “collaboration” and in particular collaborative behaviours.

### 7.6 NPD Outcomes

The results support P4 that a high climate of trust leads to a higher level of collaborative behaviours and NPD success. The descriptions of the behaviours of the individual involved in NPD at the two cases which have achieved a relatively high climate of trust, INMAN and HEVIS, are aligned with the collaborative behaviours of bi-directional communication, mutual accommodation and functional conflict. Communication is described as both formal
and informal with nothing withheld, suggesting bi-directional communication. Individuals have a good understanding of the needs and perspectives of the other functions required for NPD and are supportive of each other, suggesting mutual accommodation. Dissenting views can be expressed without any risk of personal ramifications, suggesting functional (as opposed to dysfunctional) conflict. Conversely, none of these behaviours are apparent at the organisations with lower climates of trust, FOODIS and BUILDIN. Communication is not readily available with information being withheld or ignored. There is no incentive to cooperate leading to less communication, understanding and support of other functions. Dissenting views may lead to escalation and recrimination leading to generally risk averse behaviours. These findings suggest that the existence of a climate of trust within NPD is conducive to the development of the desired collaborative behaviours.

The findings in this thesis support previous studies that have shown that the behaviours most likely to impact on NPD success are collaborative behaviours such as of bi-directional communication, mutual accommodation and functional conflict (Barczak, et al. 2009; Akgun, et al. 2010; Massey and Kyriazis, 2007; Jassawalla and Sashittal, 1998; Fisher, Maltz, et al. 1997, Maltz and Kholi, 1996; Kahn, 1996; Menon, et al., 1996, Souder, 1977, 1981, 1988; Moenaert and Souder, 1990; Mohr and Nevin, 1990). Trust researchers have shown that trust has a positive impact on the development of these desired behaviours (Cordon-Pozo, et al., 2006; Gillespie and Mann, 2004; Dirks and Ferrin, 2001). Recently, Dayan, et al. (2009) empirically showed that the development of a justice climate increases managerial trust, i.e. trust between managers and NPD team members which in turn improves collaboration and NPD success. Fulmer and Gelfand (2012) show these consequences of various levels of trusts and referents. They acknowledge that future trust research should consider the potential of the cross-examination of the consequences across various levels and referents. This thesis represents a significant advancement in this field of study by showing that knowledge sharing, communication, cooperation and conflict consequences previously associated with interpersonal trust can also be attributed to trust in teams and team level trust.

The case studies did not objectively measure NPD success, but the perceptions of the individuals regarding NPD success. These findings were interesting, with individual perceptions varying depending on their role. For example, R&D and operations tend to gauge their success as being first to market; finance sees success in being considered a “premium” product and thus being able to charge a premium rate, and marketing gauges success based on
market share. More important for the purpose of this study is that the firms who achieved higher climates of trust, INMAN and HEVIS, had generally positive attitudes about their NPD performance. At INMAN, NPD is seen as vital to the company’s success. HEVIS consider their NPD performance to be far superior to their competitions. The firms with lower climates of trust, such as FOODIS had more negative perceptions overall and rated their performance as average. The respondents at FOODIS all agreed that though they are good at incremental changes, they need to generate better ideas in order to achieve real NPD success. This is also reflected at BUILDIN who believe that they are above average for operational excellence, but below for overall NPD performance.

There is significant empirical evidence to support the proposition that collaboration leads to NPD success (Song, et al., 2000; Jarvenpaa and Leidner, 1999; Kahn and Mentzer, 1998; Kahn and McDonough, 1997; Kahn, 1996; Fisher, et al., 1997; Creed and Miles, 1996; Moorman, 1995; Moehr and Nevin, 1990; Souder, 1988). Therefore, for the purpose of the framework, an outcome of NPD success can be implied from the positive perceptions of the respondents and the existing literature.

7.7 Revised Framework

The initial framework developed in chapter 3 has been refined and expanded to reflect the findings identified in this chapter (figure 7.6). The first modification is changing organisational identification as an antecedent to a climate of trust to low functional identification as it is considered a more appropriate construct and is more likely to be impacted by organisational factors. The second modification is the inclusion of organisational factors in the framework according to their impact on the NPD project level constructs of faith in management, faith in the NPD process and low functional identification. The elements of a climate of trust have also been refined to include the level of “swift” trust and the level of perceived personal risk or benefit. The behavioural and performance outcomes have remained the same. I believe that this framework forms the basis of a more theoretically generalisable model due to its replication through the multiple case analysis and its support of existing literature but should be tested empirically with a larger data set to verify its overall generalizability.

The following section will discuss the managerial implications of this framework.
Figure 7.6: Revised Conceptual Framework for Developing a Climate of Trust between Cross-Functional Specialists within NPD

**ORGANISATIONAL FACTORS**
- Demonstrated NPD Priority
- Appropriate and Dedicated Resource Allocation
- NPD Specific Evaluation
- Dedicated NPD Project Leader
- Autonomy of Decision Making
- Collective Goal Setting
- Project Level Conflict Handling Procedures
- Reduced Blame Placing
- Recognition of contributions to NPD

**NPD PROJECT LEVEL**
- High Faith in Management
- High Faith in the NPD Process
- Low Functional Identification

**INDIVIDUAL LEVEL**
- CLIMATE OF TRUST
  - Level of “swift” Trust
  - Level of perceived individual risk or benefit

**NPD OUTCOMES**
- COLLABORATIVE BEHAVIOURS
  - Bi-directional Communication
  - Mutual Accommodation
  - Functional Conflict

**NPD SUCCESS**
7.8 Managerial Implications

The focus of this research has been on the traditional integration mechanisms which are at the disposal of management and are thought to affect trust between NPD actors. The ultimate practical aim of the study is to make managers aware of the type of factors that they can control that impact on the climate of trust achieved during the NPD process in order to achieve collaborative behaviours and NPD success.

It is important for managers to understand the NPD project level antecedents in the model – faith in management, faith in the NPD process and low functional identification – that are required for the development of a climate of trust within NPD. The next stage is to endeavour to foster these collective perceptions by understanding the organisational factors that can impact on them.

**Faith in management** can be encouraged by demonstrating NPD priority. This can be achieved by the addition of dedicated NPD resources, such as an NPD manager. Further resource implications include supplying the appropriate resources, as identified by the NPD project team, according to the needs associated with each stage of the NPD process. The organisation can further encourage faith in management by the implementation of NPD specific evaluation criteria. The criteria used can be either individual or project based and should replace other more functionally based criteria that can lead to cross-functional conflict and its associated behaviours. These evaluation criteria must be perceived to be a significant component of the individual’s performance evaluation.

**Faith in the NPD Process** can be encouraged by appointing a dedicated NPD manager who is trained in project leadership, rather than an individual project team member from a particular discipline (traditionally marketing or R&D) assuming the role of project manager. A further factor that can impact on faith in the NPD process is increasing the degree of freedom a group has in determining what work to do and how to do it. Irrespective of the structure of the NPD process used, autonomy can be increased at an NPD project level. A related factor is the level of commitment to collective goals. This too can be encouraged by providing more autonomy at the NPD project level, making it more likely that decisions including goals will be made collectively.
**Low functional identification.** Functional identification needs to be discouraged in order to foster a climate of trust. This can be done by ensuring conflicts are handled at a project level where possible. A similar situation exists with managements’ attitude towards blame placing within NPD. Blame placing that is escalated beyond the NPD project is more likely to result in functional identifications. Therefore, any blame placing that does exist should remain within the NPD project so that it is viewed as a project risk rather than a personal one. Recognition of individual performance within the NPD project will also help to lower functional identification and reduce the perception of individual risk replacing it with a perception of potential personal gains associated with NPD.

An organisation that can manage high levels of faith in management and faith in the NPD process and low functional identification within NPD is more likely to develop a climate of trust. Within this climate individuals from various functions who are brought together for an NPD project are likely to trust each other regardless of previous interactions based on their feelings about the organisation and their place within it. They are also likely to perceive individual risk associated with NPD as low or conversely the likelihood of individual benefit associated with being part of an NPD project as being high.

The existence of this climate will encourage the types of collaborative behaviours that have been shown to improve NPD success such as open and two-way communication, cooperation and mutual support for other NPD project members regardless of their function and finally constructive conflict that is not taken personally. NPD projects working under these conditions are best placed for the development of successful new products.

I have developed a “toolbox” (Figure 7.7) as a quick guide to the types of mechanisms that managers can implement for the development of a climate of trust and NPD success.
Demonstrate NPD priority through:

- The addition of dedicated NPD resources;
- The supply of appropriate resources according to the needs identified by the project team for each stage of the NPD process; and
- Replacing individual function-based evaluation criteria with significant NPD specific evaluation criteria for individuals involved in NPD.

Support NPD projects through:

- The appointment and training of a dedicated NPD project leaders who will ensure project level:
  - Decision making
  - Goal setting
  - Conflict handling

Encourage involvement in NPD by:

- Minimising blame placing; and
- Recognising the contributions of individuals involved in NPD
7.1 Limitations and Recommendations for Future Research

The potential limitations of this study are largely due to the limited time and resources available to me as a PhD student. Methodological limitations include retrospective reporting and cross-sectional research design. Cross-sectional design provides a “snapshot” at a point in time whereas a longitudinal research design would have enabled me to track the perceptions over time allowing for the impact of changes on the perceptions of the individuals involved. However, I did not have either the time or resources to carry out a study of this scale. There is also a significant time lag between data collection and completion (3 years) due to the part-time nature of my studies. However, interviews were recorded and transcribed in a timelier manner so that no information was lost or forgotten in this time. My limited access to the organisations also meant that it was not viable to cross-check my findings with interviewees.

The sample size is also relatively small and limited to one country. The study is conducted in Australia, again based on my resource capabilities. As trust perceptions may vary from culture to culture, the generalisations of this study need to be limited to an Australian context at this stage.

My sample size also led to other analytical limitations such as whether the size of the organisation, industry sector or type had a significant impact on the results. Also whether male or female team members impacted on the results. These issues would be interesting areas of examination if a larger empirical study was carried out.

The sampling method is a further limitations. I was reliant on managers selecting the appropriate participants at each organisation. Although I realize this has the potential for bias, it was the only way I was able to gain access to the organisations. Other methodological limitations also apply. The nature of the study, being qualitative and in-depth interview based means that it is sometimes difficult to follow my line of questioning when reading the discussion. This is because the interview protocol was only used as a guide and the interviews allowed to take their own direction according to the responses given. This enabled the emergence of findings that may not have been apparent if a more formal interview protocol was adhered to.
More of the functions of NVivo could have been utilized during my data analysis and can be incorporated into future research and/or publications.

There is a clear limitation in the measure of the affective component of trust. Although the trust literature clearly shows its importance in measuring trust, they also acknowledge the difficulty faced when using a higher level of analysis such as team level analysis as is the case in this thesis. Measuring mood or emotion at a collective level is particularly challenging and an avenue for future research into NPD team dynamics.

There are a number of theoretical frameworks that may have been more appropriate when considering a multi-level trust construct. Many theoretical perspectives have been used in the field of trust research, but based on my findings, this study may have benefitted from the use of embeddedness perspective and social identity theory. My data set may be able to be reanalysed using these perspectives for future research. However, it is value to offer differing theoretical frameworks to research areas in order to increase the area of knowledge overall.

Further analysis also needs to be carried out on the more ambiguous components of the framework that were not able to be replicated within the four cases. These include the impact of autonomy and collective goals on faith in the NPD process. The impact of rewards and incentives also required further examination to determine if they are used by other Australian organisations. The same can be said for evaluation criteria. Although the study suggests that NPD specific evaluation criteria would increase faith in management, it was not evident in any of the cases.

Ideally future research will involve empirical examination of the conceptual arguments outlined in this paper such as: the relative importance of the organisational factors to the related constructs; the relative importance of faith in management; faith in the NPD process and low functional identification on a climate of trust; and the validity of the causal links. This examination would begin with a study of all Australian manufacturers involved in NPD to gauge the consistency of the findings. Further research could then potentially examine the model across several countries and cultures to identify if the findings are specific to Australia or generalisable on an international level.
7.9 Conclusion

The results of this thesis argue that a climate of trust may be the theoretical lens most suitable for successful NPD. A review of the marketing literature identified a clear gap in knowledge regarding the role of trust in cross-functional relationship within NPD. Previous marketing researchers have identified that trust at both an interpersonal and organisation level impacts on the amount of collaboration achieved as does having a trusting climate. This study merges the findings of NPD researchers with those of climate and trust theorists to show that a climate of trust and its antecedents are important explanatory variables in the development of the collaborative behaviours that are required for NPD success.

The climate of trust is represented as a multi-level construct that is a function of managerial philosophy, organisational structures and the individual perceptions of the individuals involved in NPD. The framework developed for this thesis (figure 7.6) identifies the organisational factors as well as the individual perceptions that act as antecedents of a climate of trust within NPD. It further shows the impact of a climate of trust on cross-functional collaboration as measured by the collaborative behaviours of functional specialists during NPD activities.

The multiple case study analysis confirms that the trust at an NPD level in relation to faith in management; faith in the NPD process; and functional identification impact on the climate of trust within NPD. This analysis considers a number of organisational factors previously considered in the NPD literature specifically in relation to their impact on these three constructs. They offer both support and deference to existing studies and identify the factors that are most important in the development of a climate of trust. This project or team level analysis of a climate of trust and the organizational antecedents associated with it represent a significant contribution to the area of both trust and NPD research.

The findings also confirm that a climate of trust incorporates “swift” trust which is individual level trust in the NPD team as it applies to NPD as well as the perceptions regarding the potential risk associated with NPD. A further insight is that personal risk can be countered by the perception of personal benefits or gain associated with NPD activities.
The results of this study provide managers with a better understanding of some of the “soft” tools and processes under their control that will facilitate a climate of trust within NPD that in turn leads to more collaborative behaviour and ultimately NPD success.
References


Denison, D. (2001) Organisational culture: Can it be a key lever for driving organizational change?, In: *The International Handbook of Organizational Culture and Climate*, Cooper,


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APPENDIX 1

This is the initial interview protocol. Throughout the data collection, it was refined to better reflect the constructs and propositions from the theoretical framework.

INTERVIEW PROTOCOL

Interview Protocol for the relationship between marketing and other functional specialists during the New Product Development Process

Interview Date: ________________ Interview Time: ________________ Duration: ___________

Interview Location: _______________________________________________________________

Respondents Name: ___________________________ Ph: ___________________________

Fax: ___________________________

Email: ___________________________

Title: ___________________________

Preamble:

The purpose of this research is to examine the relationship between marketing and other functions during any new product development activities. What I am particularly interested in is the “climate” that exists between the functional specialists involved in new product development and how this affects the level of collaboration achieved. Directly related to this is trying to determine what factors actually promote or prevent the development of a climate of trust during new product development.

Your answers are strictly confidential – with no one else being privy to this discussion.
Softening questions: “phatic communication” – “A term introduced by the anthropologist Bronislaw Malinowski and used subsequently by many linguists to refer to language used for establishing an atmosphere or maintaining social contact rather than for exchanging information or ideas” (Crystal, 1989)

Tell me about this business:

- No of employees: ____________ (Total revenues: ____________)
- Nature of Business: Consum Industrial
  Percentage mix: Cons ___ Ind ___
- Export orientation:

And you personally:

- How long have you been with the company?
- What is your current role?
- How long have you been in this position?
- How many NPD projects have you worked on?

What would you change… “Power of god”
“theme?????” -

Depending on the response to Q1, ask the following questions:

How important is NPD work for this organisation?
- Is NPD a major factor in your organisations success?
- Sales from NPD?
- Management support?
- Management priority?
- How many people are involved in NPD?
- Does your organisation “talk” NPD?
- Which function dominates NPD?
- Type of NPD – new to world, improvement

How does this affect your behaviour at work?
What form does most NPD work take?
- How do you feel about it?
- Does marketing interact with any people in other functional areas? (Barclay, 1989)
- Does marketing need information form the other functions to complete their tasks? (Barclay, 1989)
- When you work together do you have a number of common work-related interests and goals? (Barclay, 1989)

How does this affect your behaviour at work?

- **Structure**
  - Specialisation - Is this organisation highly departmentalised?
  - Are there many specialists in this organisation? (Barclay, 1989)
  - Formalisation - Do rules and regulations have a very important place here?
  - Does this organisation keep written records of everyone’s job performance? (Barclay, 1989)
  - Centralisation of authority - Would a person who wants to make his or her own decision quickly discouraged in this organisation? (Barclay, 1989)

How does this affect your behaviour at work?

- **Integration Mechanisms**
  - Cross-functional teams - Does this organisation use teams that include mid-level managers from multiple functions to develop new products (Maltz, Souder, Kumar, 1999)
  - Social orientation - How often have the following activities involving individuals from different functional areas been organised by the organisation:
    - Recreational games/athletic leagues
    - After work or evening get togethers
    - Weekend social events (Maltz, Souder, Kumar, 1999)
  - Collocation - Where is the marketing group located relative to other functional areas involved in NPD:
    - On the same floor in the same building
    - On different floors in the same buildings
    - In different building in the same city
    - In different cities
    - In different countries (Maltz, Souder, Kumar, 1999)
    - Is the marketing specialist’s office located in the same building as the other functional specialists involved in NPD? (Kahn and McDonough, 1997)
  - Global/virtual/Collocated teams - Does the climate of trust in your own part of the company affect your working relationship with people in virtual or global teams? (mine)
  - Customer visits - How many times have you met with external customers:
    - With someone from another function?
    - Without someone from another function? (Maltz, Souder, Kumar, 1999)

How does this affect your behaviour at work?
Management Factors:
- Are they knowledgeable
- How much importance does top management place on NPDP?
  - if it is important do they back up their rhetoric with actions,
  - resources
  - their time
  - support for their middle management
- Are the rewards system and evaluation procedures fair?
- Rewards, do top management openly reward NPD cooperation/collaboration?
  - If yes, how? Are there any examples - financial rewards – bonuses, promotions, kudos - status/prestige, formal awards, recognition ceremonies (Kyriazis)
- Are there many specific evaluation criteria for people in this organisation? (Barclay, 1989)
  - Are there any specific to NPD?

How does this affect your behaviour at work?

○ Conflict handling:
  - is there a formal process,
  - does it vary,
  - is there an established culture,
  - at top management level,
  - do you sort it out yourselves.

How does this affect your behaviour at work?

○ Blame Placing
  - Does management blame NPD participants?
  - Do individuals makes a point of attacking individuals in other sections (mine-Kyriazis)

How does this affect your behaviour at work?

Structural Flux
- Since you have been involved in NPD with this organisation, have there been many changes in:
  - NPD strategy?
  - NPD personnel?
  - Top management?(mine – based on Maltz, Souder, Kumar, 1999)

How does this affect your behaviour at work?

- Effectiveness of restructuring
  - Constant restructuring has left me very cynical
  - With constant changes to senior management you learn to be very flexible(mine-Kyriazis)
How would you describe the climate for NPD work in this organisation/unit?

- Positive
- Negative

How does this affect your behaviour at work?

How do you feel about the way the NPD process operates in this firm?

- Do you enjoy it?
- Autonomy decision making, formalisation, centralisation
- Do all the functional specialists involved in NPD have the same understanding of the policies and organisational structure relating to their working together? (Barclay, 1989)
- Are people in this organisation closely supervised to see that their work measures up? (Barclay, 1989)
- Are they team gains or personal gains?
- Team risks or personal risks
- Faith in the process
- Your involvement with its development/ownership of NPD
- Is it clear what marketing is responsible for and what other functions are responsible for when making NPD decisions? (Barclay, 1989)

How does this affect your behaviour at work?

How do you feel about the “people” you work with on NPD projects?

- threatened
- competition/rivalry - During your last NPD project, did marketing have to compete with other functional groups for the same resources? (Maltz, Souder, Kumar, 1999)
- cooperative
- let down
- collaborative
- team spirit - Is there a lot of warmth in the relationships between employees? (Barclay, 1989)
- frustrated
- Trust in others - Competence of others

How does this affect your behaviour at work?

How do you feel about the Organisation and your place within it?

- Does this organisation have a real interest in the welfare and happiness of those who work here? (Barclay, 1989)
- Do people identify more with the organisation or their own functional area (RFI Fisher et al 97)
- Citizenship behaviour
- Loyalty to organisation - Is there much personal loyalty to this organisation? (Barclay, 1989)
- In it for themselves
- Survival is the key driver
- Collegiality – warmth between employees

How does this affect your behaviour at work?
Collaboration is made up of more than simply communication and cooperation. It is a higher level construct requiring bi-directional communication, mutual accommodation and functional conflict handling behaviours. These behaviours are more likely to occur in situations where there is a climate of trust between the functional specialists involved in the NPD process.

Collaboration:
- Achieve goals collectively
- Have a mutual understanding
- Informally work together
- Share ideas, information and/or resources
- Share the same vision for the company
- Work together as a team. (Kahn, 1996)
- R&D and marketing people spend time getting to know each other's needs
- Both functions benefit from the knowledge and experience possessed by the other
- Both sides discuss with each other changes in technology, substitutes and other factors that could have long run affect on the relationship
- Both sides work to achieve true productivity improvements from which both sides benefit (Spekman et al EJOM 97)

How does this affect your behaviour at work?

○ Communication openness
  - We frequently discuss new product ideas and opportunities
  - We tell each other things we wouldn’t want others to know
  - We talk candidly with one another
  - If I have a problem with him I would tell him about it
  - This manager is responsive to my needs for information.(Smith and Barclay JM 1997)

How does this affect your behaviour at work?

○ Cooperation
  - Is the atmosphere between marketing and other functions involved in NPD friendly?
  - Do marketing and other functions cooperate to get the job done?
  - Can you count on the other functions to help you out during a difficult time?
  - Do tensions frequently run high when members of the various functions get together? (Kahn, Reizenstein, and Rentz, 2003)

How does this affect your behaviour at work?

○ Effectiveness of CFR
  - To what extent do other functions carry out responsibilities and commitments in regard to you?
  - Have you carried out your responsibilities and commitments in regard to the other functions involved in NPD?
  - Do you feel the relationship between you and the other functional specialists involved in NPD is productive?
  - Is the time and effort spent in developing and maintaining the relationship with other functions worthwhile?
  - Are you satisfied with the relationship between marketing and the other functions involved in NPD?
  - Have you had effective working relationships with the other functions involved in NPD? (Kahn, Reizenstein, and Rentz, 2003)
- How do you generate trust between members?
- How do you achieve effective interpersonal relationships?
- How do you achieve effective communication?
- How do you identify key customer needs?
- How do you ensure goals remain stable?
- How do you keep on schedule?
- How do you ensure there are sufficient resources?
- How do you stay on budget? (based on McDonough, Kahn and Barczak, 2001)

*How does this affect your behaviour at work?*

**NPD success is a measure of the types of behaviours between the functional specialists, the antecedents of which are the climate of trust that exists between the specialists involved in the NPD process.**

**NPD success:**
- How would you rate your organisation’s performance in product development? (Kahn, 1996)
APPENDIX II

Examples of NVivo coding used
Examples of texted coded as “Identification with the organisation”

<Internals\AusZinc - Marketing> - § 2 references coded [0.13% Coverage]
References 1-2 - 0.13% Coverage

Probably I am an Ozzinc person.

<Internals\AusZinc- Engineer(R&D)> - § 2 references coded [1.01% Coverage]
References 1-2 - 1.01% Coverage

I guess, I mean having been here only 12 months it is probably not, I still see myself just a chemical engineer, although I do feel some loyalty to this company definitely after the time I have spent here.

<Internals\AusZinc-Engineer (operations)> - § 2 references coded [0.87% Coverage]
References 1-2 - 0.87% Coverage

That’s a good question, that’s very probing, I think I am a part of the organisation from the fact that I have been here this long, because if I don’t think I feel, if I didn’t think I felt part of the organisation and I wasn’t contributing to it, then I certainly would have just got up and left. So probably an Ozzinc person.

<Internals\AusZinc-Environmental and Technical Superintendent, Scientist (R&D)> - § 2 references coded [0.36% Coverage]
References 1-2 - 0.36% Coverage

More at this stage probably an Ozzinc environmental scientist.

<Internals\AusZinc-Finance Director> - § 2 references coded [0.60% Coverage]
References 1-2 - 0.60% Coverage

PERSONALLY, TELL ME ABOUT YOURSELF, DO YOU FEEL LIKE YOU ARE AN OZZINC ACCOUNTANT OR ARE YOU AN ACCOUNTANT AND THAT’S WHAT YOU DO?

Probably a bit 50/50.

<Internals\AusZinc-MD (NPD Manager)> - § 2 references coded [1.45% Coverage]
References 1-2 - 1.45% Coverage

SO DO PEOPLE IDENTIFY WITH AusZinc

Do they ever, from the shop floor up, don’t take our label from us, we are who we are.

SO THERE IS A LOT OF LOYALTY AND THEY IDENTIFY WITH THE ORGANISATION. I GUESS THEN THEY IDENTIFY MORE WITH THE ORGANISATION THAN THEY DO WITH THEIR PARTICULAR FUNCTION.
Yes

SO I AM OZ ZINC R&D PERSON, I AM NOT JUST AN ENGINEER VERSES THE ACCOUNTANT VERSES THE MARKETING PERSON.

No, there is not a lot of competition. There is the company politics of course but it is not as great within our organisation, it is more outside within the Delta.

Reference 1 - 0.06% Coverage

I think they are engineers first.

Reference 2 - 0.10% Coverage

Yes I think they are marketing first and foremost.

Function 100% function.

Reference 2 - 0.39% Coverage

Yeah I mean if you could go further and say the operations team and sales team probably could be a little warmer to each other, the operations team and the marketing team could definitely be a little warmer towards each other.

Reference 1 - 0.66% Coverage

Gyprock first
Depends on how long they’ve been here
And what they’re doing

Reference 1 - 0.12% Coverage

I don’t know how you would read that but I see myself as a CSR employee.

Reference 1 - 0.20% Coverage

I suppose I am more of a gyprock technical person.
I guess when they are fairly new employees they take a while to identify with the company so much, but I think once they have been here a few years, they generally feel that they are part of the gyprock team.

Reference 2 - 0.85% Coverage

I feel like a gyprock operations person, but again I haven't been here for that long. So someone who has been here for 40 years, well they will have a strong association with the company.

Reference 1 - 0.60% Coverage

DO YOU THINK PEOPLE IN THE ORGANISATION AND YOURSELF INCLUDED, IDENTIFY MORE WITH THEIR FUNCTION LIKE AS IN YOU KNOW ARE YOU AN R & D PERSON OR ARE YOU A NATIONAL FOODS PERSON.

I don’t know I’ve actually not talked about that.

AND MOST PEOPLE DO YOU THINK THEY’RE I CALL IT LOYALTY FOR SOMEBODY LOYALTY JUST HOW DO THEY IDENTIFY THEMSELVES DO YOU THINK.

I think most people identify.. if you’re talking about externally National Foods first.

AND SORT OF LEADING ON FROM THAT, SO THIS QUESTION IS ABOUT IDENTIFYING WHO WHETHER YOU IDENTIFY YOURSELF AS IT WITH THE FUNCTION OR THE ORGANISATION SO ARE YOU FIRSTLY A MARKETING PERSON OR ARE YOU A NATIONAL FOODS PERSON.

That’s interesting. No I definitely be first to marketing that’s nothing and when you said with the function I almost thinking am I an international person or a National Foods person, yeah I would be like that too and I think you’ll find you get asked that question two ways when you talk to the other people. Are you a juice person or are you a National Foods person, are you a cheese person you know because cheese business was external, it ??? (1.11.26) ... juice was Berri bought in so I think there is still a little bit of that. National Foods is the entity but I don’t know that it has a very strong culture here, it’s still very young and try to create its own culture.
DO YOU THINK PEOPLE IDENTIFY WITH THE ORGANISATION OR WITH THEIR FUNCTION.

I think it’s both definitely both.

WHICH ONE’S FIRST ARE YOU AN OPERATIONS PERSON WHO WORKS FOR NATIONAL FOODS OR ARE YOU A NATIONAL FOODS PERSON WHO WORK IN OPERATIONS.

That’s a tough one. I would say personally I’m a National Foods person that works in operations. But there is still plenty of there is yes definitely an infinity with the part of the business that you work in absolutely.

DO YOU THINK PEOPLE HERE IDENTIFY MORE WITH THEIR FUNCTION OR WITH THE ORGANISATION YOU KNOW DO PEOPLE THINK OF THEMSELVES AS R&D PEOPLE, MARKETING PEOPLE.

Yeah their function it’s not like I am the technical person responsible for delivering the National Foods ??? (40.12) ...

OK DO YOU THINK THAT THAT IMPACTS ON THE WAY PEOPLE BEHAVE.

Yeah I think so because what you actually do you then put yourself in that boundaries of your R&D not about ok ??? (40.27).... maybe go outside or you know or direct my responsibility a bit.

DO YOU THINK PEOPLE IDENTIFY WITH THE ORGANISATION OR WITH THEIR FUNCTIONS. SO YOU KNOW ARE THEY MARKETING PEOPLE OR ARE THEY NATIONAL FOODS MARKETING PEOPLE.

Wow that’s a good question. I can only talk for myself actually because when I worked for ??? (24.11) I live and breathe the company so you live and breathe the brands you buy the brands when you’re in the supermarket. You know you become completely absorbed by the company I suppose. And I like that I feel like then I have a sense of belonging and that you’re giving something back and they pay me to do a job and I can buy the products and if I can talk about the company in a positive like to others that’s a good thing and talk to them about products that’s a good thing so.

SO YOU’RE A NATIONAL FOODS PERSON.
Yeah I’m a National Foods person before I have a... just talk about a position yeah.
DO YOU THINK PEOPLE IDENTIFY WITH THEIR ORGANISATION, THE
ORGANISATION OR WITH THEIR FUNCTION. SO DO YOU THINK...

Organisation I would say more...

YOU’RE A NATIONAL FOODS R&D PERSON AS OPPOSED TO THE R&D
PERSON YOU KNOW WHAT I MEAN. DO PEOPLE THINK OF THEMSELVES AS
YOU KNOW I’M MARKETING, I’M R&D WHATEVER, WHAT DO THEY THINK,
WE’RE NATIONAL FOODS.

Yeah I don’t know actually. I’ve never really thought about that. I always think about
myself an R&D but I work at National Foods.

SO YOU CALL THE R&D FIRST.

Yeah.

DO YOU THINK BECAUSE DERMOTT SUGGESTED THERE IS ALSO A BIT OF
IDENTIFICATION WITH JUICE, YOU KNOW AND ??? (28.46).. THAT PEOPLE
ARE VERY MUCH ON THE ...

Category based.

YEAH I’M A JUICE PERSON.

Yeah I think so as well yeah.

SO STILL WOULD THAT COME BEFORE BEING R&D, ARE YOU R&D FIRST,
YOUR R&D AND THEN YOUR JUICE AND THEN YOU’RE NATIONAL FOODS.
OR ARE YOU JUICE, R&D NATIONAL FOODS.

Probably juice first.

OK.

Yeah just because that’s really what defines me at the moment probably.

I think of myself as a Packer engineer, do the next level down.
AND DO ALL THE OTHER PEOPLE LIKE YOU KNOW DO THE SALES PEOPLE THINK OF THEMSELVES AS PACKER SALES PEOPLE OR ARE THEY JUST SALES PEOPLE? YOU KNOW THERE ARE SALES PERSON FIRST.

No, I think there’s definitely a Packer sort of stamped into you it seems to be in your blood, that’s why people stay here.

YEP SO THERE IS LOYALTY?

Yeah.

LOYALTY.

Oh yeah I think you worked out the average longevity of people in the organisation, I got another 15 year old, 15 year service award to give out and they’re probably once every couple of weeks.

<Internals\PACCAR - Financial Controller> - § 2 references coded [4.31% Coverage]

References 1-2 - 4.31% Coverage

Look I think engineering is probably more siloed than some other areas more we are engineering. That doesn’t necessarily apply to the you know that doesn’t necessarily apply to senior management but as a group. There may be a tendency in engineering to you know do their bit but not necessarily think about the next person along the line that situation is dramatically improving in the last year or so. It’s definitely heading the right way but historically and we still got some of the old thing to get rid of there is probably more ??? (23.14) … mentality in engineering. Now they have a much better understanding of the effect that they have down the track in terms of sales they were probably a bit guilty of that as well. They want to obviously do whatever the customer wants no matter how difficult it is to build or how expensive it is or difficult it is to design an engineer. But again there is in I would say in the last couple of years people are getting a much, much dramatically better appreciation of the effect they have on ??? (23.53)… steam.

<Internals\PACCAR - NPD Manager> - § 2 references coded [0.53% Coverage]

References 1-2 - 0.53% Coverage

I think we all if we are in the right frame of mind we’re all suitably reminded we do all understand that we’re here for the benefit of the company. Which it does not mean at any stage the pressures of the day don’t make that a little hard for you to see through the fog sometimes and you get a bit stuck on your own agendas, it’s a typical U.S structure.

<Internals\PACCAR - Plant manager (operations)> - § 2 references coded [0.57% Coverage]

References 1-2 - 0.57% Coverage

At the moment I would say that they’re they have a sense of more of... they have a sense of what they’re doing is stretches outside of their department but at the moment they’re probably I would say focused more on being engineers at this point.
That is an interesting question, I think it is probably a little bit of both, we all would consider ourselves as Parkard people, but I definitely don't see myself as an engineer or a person who builds the product and I would rely on my peers to guide me through those decisions that I would very much relying on them to help me with. I am pretty sure my peers would see that of the sales and marketing function as well. for instance I know that our production manager, he doesn't speak to customers, nor do I expect him to because he has enough things to concern himself with during the day, he would rely on my feedback around what customers preferences are. So I don't think that has ever been questioned. Whereas engineering would have a little bit of play between both, they would actually act as a suede market research part of our business that are continually looking at to refine our process and that and wouldn't talk to operates and talk to fleets about what is working and what is not. So I think we rely on each other in a healthy fashion.