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Janette K. Rowland

University of Wollongong, janetter@uow.edu.au

Elias Kyriazis

University of Wollongong, keliass@uow.edu.au

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Keywords

potential, pitfalls, transferring, constructs, across, cultural, settings, Experience, from, NPD, Research, Australia

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**The Potential Pitfalls of Transferring Constructs across Cultural Settings:
Experience from NPD Research in Australia**

Janette Rowland and Dr Elias Kyriazis, University of Wollongong*

Abstract

The purpose of this paper is to discuss the research design and methodology choices in the field of Marketing Management in order to choose the best “fit” for the authors’ research on developing a climate of trust within the new product development process. Many researchers often use constructs developed and empirically tested in other cultural contexts. This often allows for interesting cross-cultural comparisons. While useful, this paper cautions on the blind application of constructs and survey instruments. Reporting on experience from exploratory research carried out in the context of the NPD process in Australian manufacturing firms, we show the potential pitfalls and challenges that need to be examined in order to choose the most appropriate methodological approach.

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Integration, Collaboration and Developing a Climate of Trust in New Product Development

One of the key problem areas in new product development has been the relationship between functional specialists. The focus of much of this literature has been on “integration methods” which promote information sharing and interaction among participants (Gupta, Raj and Wilemon, 1985; Ruekert and Walker, 1987; Souder and Moenart, 1990; Mukhopadhyay and Gupta, 1995; Griffin and Hauser, 1996; Maltz and Kohli, 2000; Leenders and Wierenga, 2002), with other interpersonal considerations such as trust often being viewed as a “by product” of these approaches (Souder, 1981, 1988; Souder and Moenart, 1990). Recent research suggests that trust may play a more significant role in modern organisational structures than previously thought at both the organisation level and the personal level (Shapiro, 1987; Meyerson, Weick and Kramer, 1996; McKnight, Cummings et al. 1998, McAllister, 1995). Within the NPD literature, trust has received limited attention (Jassawalla and Sashitall, 1998; Massey and Kyriazis, 2007). This study highlights the importance of understanding the complexities of organisational trust and the role that management play in creating an environment conducive to the development of a climate of trust. If such a climate can be developed and nurtured, the potential outcomes are collaborative behaviours such as maximised cross-functional communication and co-operation, minimised cross-functional conflict and ultimately NPD success.

In dealing with this issue, defining the research question is one of the most important steps taken. Key questions typically take the form of “who”, “what”, “where”, “how” and “why” questions. The research questions for the study being examined were threefold:

1. **How** does the climate of trust during the NPD process affect relationships between functional specialists (eg. Marketing, R&D, manufacturing, etc) in terms of communication, cooperation and collaboration.
2. **How** do the functional specialists involved in NPD view the climate of trust during the NPD process?
3. **What** organizational factors impact on the climate of trust during the NPD process?

A further aspect in achieving the best “fit” for the proposed research questions, is the researcher first distinguishing their position within the community of scholars with whom they would like their work to be associated. Therefore, as a first step an extensive literature review was conducted. Much of the reviewed literature resided within the research area of functional integration associated with NPD work.

There has been a strong tradition of both quantitative and qualitative studies in NPD. However, much of the literature originally considered 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, 1985; Ruekert and Walker, 1987; Griffin and Hauser, 1995). 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 setting either into a

single new culture (Song, Montoy-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 this issue 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 of these studies gave the author enough of a grounding to develop a conceptual model. This model and supporting hypothesis included many management based, process based as well as individually based constructs (Rowland, Kyriazis, 2005).

An accepted practice for empirical evidence in the NPD literature to test theory is to design survey instruments that can be tested statically in order to support hypothesis and causal relationships (Ruekert and Walker, 1987; Ayers; Dahlstrom; and Skinner, 1997; Maltz and Kohli, 2000; Leenders and Wierenga, 2002; Song and Dyer, 2000; Fisher; Maltz; and Jaworski, 1997). This accepted practice therefore defined the initial research approach chosen 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.

Results from Initial Fieldwork

Using an interview protocol based on the constructs identified for the study, five initial interviews were conducted with managers in charge of new product development in a variety 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 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. The answer to this question was one of the key issues in re-evaluating the measurement method to use for this study. 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.

Issues such as these in the analysis of these exploratory interviews consequently led to a complete ontological shift in the choice of research methodology that would best suit these research needs. The remainder of the paper will examine the methodological reasoning behind this shift.

Shifting from a Quantitative to a Qualitative Research Approach

In order to re-establish the research paradigm that best “fit” this researchers’ work, the objectives of the study had to be re-considered in reference to the following three elements. The first is the identification the most relevant research philosophy (ontology) in which to position the given study. In this case now a qualitative research approach as it has the advantage of providing flexibility and suitability when used in the interpretation of marketing management situations, particularly in an organizational context (Carson, Gilmore, Perry and Gronhaug, 2001). 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 paper will outline the challenge faced by the authors with a research question requiring the perceptions of various specialists involved in a particular process within Australian manufacturing firms in relation to these two final elements leading to the use of a multiple case study methodology.

Within the scope of qualitative research, a further three factors need to be considered in deciding upon the methodological approach to use in order to address the issues posed by developing trust climates within NPD processes. These considerations include: (1) the role of prior theory; whether the focus is on theory building or theory testing and whether the research is inductive or deductive; (2) whether the research will be structured or unstructured; and (3) the role of the researcher (Carson, Gilmore, et al., 2001).

The first challenge facing the authors therefore was to examine the role of theory in regards to their research question. As discussed earlier, a review of the relevant literature revealed that 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 aimed 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. This merging of theories, although not “emergent”, is still inductive and according to Edmondson and McManus can therefore be considered intermediate theory building.

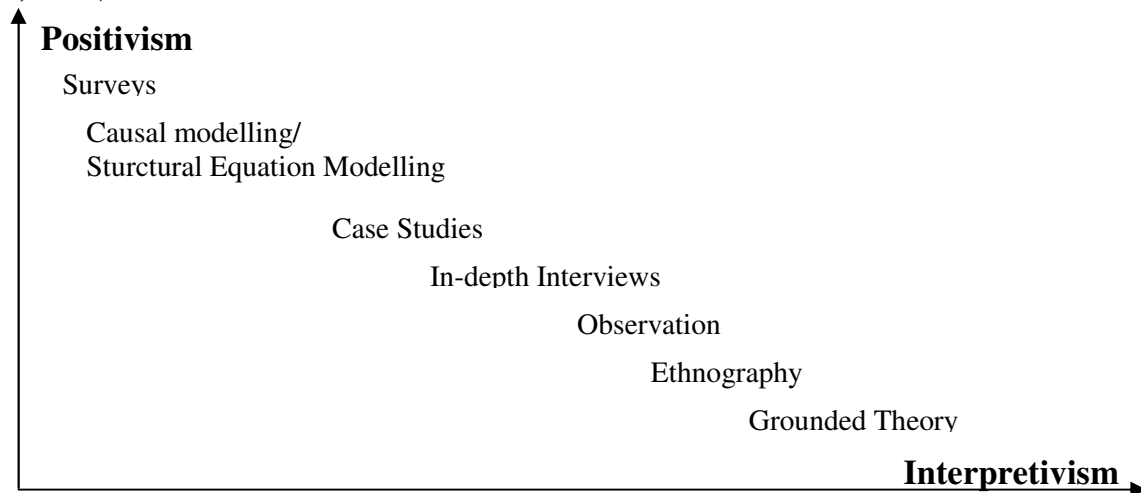
The next two considerations are the structure of the research design and the role of the researcher. Within a qualitative research approach, cases can be made for tight, pre-structured designs and for loose, emergent one. However it is acknowledged that much qualitative research lies between these two extremes (Miles and Huberman, 2004; Carson, et al., 2001). Miles and Huberman, 2004 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, though cross-disciplinary, it suggests that a tighter design would be the most appropriate.

In relation to the role of the researcher, taking a qualitative 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, 2004) further establishing the need for a tighter research 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.

Qualitative Research Methodologies

There are a wide range of approaches available to qualitative researchers as seen in figure 1 (Carson, et al., 2001). They are distributed according to the philosophical approach taken by the researcher. As you move left along the continuum, the more structured and deductive the methodology.

Figure 1: Methodologies in the Context of Research Philosophies (Based on Carson, et al, 2001)



When the research approach was examined in relation to these methodologies, case studies were considered to be the most suitable methodology for a number of reasons best summarized by this quote from Yin: “*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)

Multiple Case Study Design and Methodology

The case study is used in many settings including, for the purpose of this research, organisational and management studies to understand the dynamics present within particular management processes (Carson, et. al., 2001; Eisenhardt, 1989). Yin, 1984's 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). The present study can best be described as "theory elaboration" (Lee, 1999 in Gublert, 2005) in that it elaborates on theoretical links between integration and trust literature across several disciplines. 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).

The strong theoretical development already established for the research in question determines that a multiple case study will be the most appropriate. 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. 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 one relies on "sampling" logic to obtain the optimum results, the other relies on "replication" logic. This 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. Therefore, each case serves as a distinct experiment that stands on its own as an analytical unit and serves as a replication, contrast and extension to the emerging theory. A further point of difference includes rather than using random or stratified sampling to reflect the entire "universe" or pool of potential respondents, in theoretical sampling cases are selected according to their contribution to the theoretical framework that has been developed for the study (Eisenhardt, 2007). The theoretical sampling approach used in the current study will examine "typical" cases in an Australian context with the view to discovering clear pattern recognition of the central constructs, relationships and logic of the given framework.

Conclusion

The purpose of this paper is to serve as a warning to both PhD candidates and early career academics of the pitfalls of simply adopting measures and methodologies used in previous settings. This research has reaffirmed that there is no substitute for the researcher allowing the methodology to be chosen by the problem that is trying to be solved. Even though, all of the constructs used had excellent measurement properties, and would have produced a valid statistical result, their relevance to an Australian context would have remained questionable. This experience showed the importance of not taking short cuts in determining the best "fit" between your research question and your chosen methodology.

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