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Eddie Fu-Keung Yu
University of Wollongong

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**The Effect of Marketing's Participation in
New Product Development on its Manifest Influence:
A Test of a Contingency Model**

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

DOCTOR OF PHILOSOPHY

from

UNIVERSITY OF WOLLONGONG

by

EDDIE FU-KEUNG YU

MSc. Management Studies (University of Durham)

SCHOOL OF MANAGEMENT AND MARKETING

2006

Abstract

A substantial body of research suggests that new product development (NPD) is a critical potential source of competitive advantage and profitability for organisations. It has also been well recognized that new product development is a complex process that involves multi-disciplinary and multi-functional activities. This thesis initially argues a critical factor that influences the efficacy of the NPD process in the participation of different functional groups. Despite the strong theoretical link between the interaction of R&D and Marketing and NPD success, empirical studies on this topic have had contradictory results. One important reason attributing to these inconsistent results is that few studies have distinguished participation from influence. While NPD researchers acknowledge that functional team members interact in the NPD process, participation is treated the same as influence, or is seen to spontaneously lead to intended influence. Consequently, few studies have examined the influence of functional groups within the NPD process. This obscures the effects of Marketing and R&D's participation in the NPD process. This thesis aims to close this important knowledge gap by addressing two main research questions as follows:

1. What are the effects of Marketing's participation on its manifest influence in the new product development process?
2. How do the contingencies, such as organisational, individual and project factors, moderate the relationship between Marketing's participation and its manifest influence in the new product development process?

A theoretical model with nine hypotheses has been developed to examine these two questions. The model was constructed by synthesising the NPD, organisation theory, socio-political and power literature, and the hypotheses so derived were tested using 114 NPD project data from a survey of R&D managers in Hong Kong companies. The hypotheses testing process has gone through three stages. Firstly, the data were tested to ensure that the assumptions for regression analysis were met. Secondly, the main effects of the proposed model were tested using bivariate regression analysis. Thirdly, the contingency effects in the model were tested using moderated regression analysis.

The findings of this study indicate that while Marketing's participation is positively related to its influence on R&D in the NPD process, its influence was, to various degrees, moderated by the hypothesized three groups of contingency factors, namely new product project characteristics, individual factors and organisational factors. The introduction of control variable (team size and self-perceived influence) did not change the significance of the moderating effects of the contingency factors.

This thesis has made four theoretical contributions. First, it has conceptualised and empirically tested the relationship between Marketing's participation in the NPD process and its influence on R&D in that process. Second, it has created a new contingency framework to empirically investigate the effects of seven contingency factors on the relationship between Marketing's participation in the NPD process and its influence on R&D in that process. Third, to reduce bias, the survey instrument was designed to measure R&D's perception of Marketing's influence rather than self-reporting by Marketing, arguably considered as more reliable and accurate. Finally, despite its importance very few NPD studies have been conducted in Hong Kong

particularly from an organisational behaviour perspective. This study will help advance the knowledge in this particular research area.

Apart from theoretical contributions, this thesis has made several managerial contributions. The study findings suggest that management, in order to secure a better new product performance, should help build a well-represented cross-functional NPD project team. Management should also facilitate effective participation of functional representatives. Knowing the importance of the seven contingency factors to the effective function of the team, management should direct their effects positively to help achieve desirable goals that best serve corporate interest. To this extent, a 3-H model has been created to enable management to easier assimilate and apply complex theoretical concepts developed in this thesis.

Acknowledgement

Completing a thesis is like running a marathon, both demand remarkable perseverance to go through the ups and downs. The main difference between two events is that a marathon runner has to complete a race alone, however, seldom a PhD student can complete a thesis all by himself without other people's guidance or support. I am grateful to several people who have contributed in different ways to the successful completion of this thesis.

First and foremost, I owe a great deal to my thesis supervisor, Professor Paul K. Couchman. I benefited immensely from Paul's supervision in many ways: for the generosity of his time to give so much invaluable advice at different stages of my thesis development, for his continued encouragement and for all the critical review comments on the draft chapters of my thesis.

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