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**Top Management Involvement in New Product Development Projects:
A Socio-Technical Perspective on Its Antecedents, Operationalization, and
Consequences**

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Extended Abstract

Rapid advances in technology urge the necessity of new product development (NPD) for many manufacturing companies to sustain their competitive advantage and to grow. Research has been aiding these companies by identifying success factors and best practices for developing new products amongst which top management involvement (TMI) is one of the most critical. At the project level, TMI in NPD refers to the extent to which top management engages in supportive activities related to the project. Over the past few decades, a large number of research, conducted in various industries and countries, identified TMI as a critical success factor (cf. Cooper and Kleinschmidt, 1996; Rothwell et al., 1974; Rubenstein et al., 1976; Souder and Song, 1998; Zirger and Maidique, 1990). Moreover, recent best practice studies consistently affirmed TMI to be a significant contributor to improved NPD outcomes (cf. Barczak et al., 2009; Cormican and O'Sullivan, 2004; Nicholas et al., 2011; Song and Noh, 2006).

As can be seen, due to its importance for NPD success, many studies investigated TMI. However, there has been far more research on the consequences of TMI in NPD (Gomes et al., 2001; Hegarty and Hoffman, 1990; Kleinschmidt et al., 2007; Lee et al., 2000; Lin, 2007; Pujari et al., 2004; Reilly et al., 2003; Swink, 2000) than on its determinants. Correspondingly, “innovation leadership and support by senior management” was recently noted as an NPD area that seriously needs improved management (Barczak et al., 2009, p.15). The first contribution of this study aims to fill this gap.

In this study, two groups of TMI antecedents are being examined. First, task related factors include issues such as the project's strategic importance and the new product's innovativeness. Next, human behaviour and involvement literatures suggest a second type of variables, namely, personal interests would inform the involvement decisions (Ajzen and Fishbein, 1980; Ajzen, 2005; Barki and Hartwick, 1989; Celsi and Olson, 1988). While there is scant literature that looked at some aspects of these task related factors (cf. Green 1995), to the best of the authors' knowledge, no study investigates the second group of factors.

To test the hypothesized model (see Figure) a two-part survey instrument was developed. Data was collected from 85 manufacturing and technology companies in the UK for 86 NPD projects from a pair of respondents (a senior manager and a project manager). Partial least squares (PLS) based structural equation modelling (SEM) was used to test the hypothesised relationships.

The results show that organic communication that is continuous, bi-directional and informal, between top management and NPD team has a positive effect on TMI. Strategic importance of the project has a positive influence on TMI by active motivation, providing resources and creating a tolerant climate. Active motivation provided by top management has a positive effect on meeting budget/schedule, product quality and commercial targets. TMI by providing resources positively affects adherence to budget/schedule and product quality, but not commercial success. Surprisingly, involvement of top management by providing guidance has a negative effect on adherence to budget/schedule. Creating a tolerant climate also has a negative effect on project success in terms of meeting budget/schedule, product quality and commercial targets. A number of contributions to the literature and implications for management from this research were also discussed.

Figure. Socio-Technical Systems View of TMI in NPD Projects

