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Journal of High Technology Management Research

journal homepage: www.elsevier.com/locate/hitech



Is sibling rivalry good or bad for high technology organizations?

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ARTICLE INFO

Available online 8 August 2008

Keywords:
Inter-unit competition
High technology organizations
Autonomy
Innovation
Locus of evaluation
Product complexity, Product differentiation,
Organization slack
Technological turbulence
Market growth
Competitive intensity

ABSTRACT

Inter-unit competition, ¹ generally, evokes mixed feelings among both academicians and business executives. Executive policies promoting inter-unit competition create a double-edged sword of pressures for line managers for enhanced competitiveness. In this paper, I highlight the significance and importance of inter-unit competition in high technology organizations. I propose that the autonomy to choose market breadth facilitates and promotes inter-unit competition and that this relationship is further strengthened by evaluating units using objective criteria. In addition, I identify both internal and external conditions under which inter-unit competition may be beneficial or harmful (not beneficial) to the unit and hence, the organization. Several important theoretical and practical contributions are identified.

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1. Introduction

"Just as a lizard cuts off its tail to move on, we will have to break with the past to move forward," says Chung Kook Hyun, a senior vice president at Samsung and so they have. They have broken through the traditional barriers of Confucian hierarchies to build a company that invests heavily in research and development and in 2004 declared \$10 billion in net income on sales of \$56 billion and earned a total of 100 citations at top design contests in US, Europe and Asia. Samsung that started as a low cost Korean company, has now become what Sony could once claim — the competitor with both breadth of products and the appeal of a premium brand (Brooke & Hansell, 2005). Overall, Samsung has managed to compete aggressively with long standing industry giants in the technology industry like Sony and Panasonic for consumer electronic products, Nokia and Motorola for cellular phones, Intel for memory chips and Canon for printer business (Economist, 2005).

Samsung, is a good example of how a company is able "to move from the darkest shadows to the top of the tree" (Economist, 2005: 2), essentially because of the competitive organizational structure that has allowed Samsung to be one of the top three market leaders in most of their businesses. The question, however, remains — 'should organizations follow the footsteps of Samsung to improve innovation and performance within their organizations and challenge their business units to compete both inside and outside the organization?'

In general, *inter-firm competition* is a well-researched and accepted phenomenon (e.g. Baum & Korn, 1996; Echols & Tsai, 2005; Gurad & Kumaraswamy, 1993), but what about the convention that exists in the industry against inter-unit competition? Shouldn't those rules be critically analyzed to provide managers and academicians with better insights into the importance and role of interunit competition that face dynamic and uncertain environments with resultant pressures to innovate expeditiously? Hence, the three research questions identified in this paper are: (1) what facilitates intra-firm or inter-unit competition within high technology organizations; (2) what role does inter-unit competition play to improve unit performance and unit innovation? and (3) under what conditions is inter-unit competition beneficial or harmful? Hence, in this paper, I fill the void in existing literature by studying the facilitators of intra-firm competition and by identifying external and internal contingency factors in

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¹ Inter-unit and intra-firm competition is used interchangeably throughout the paper.

technologically intensive industry that are most relevant to the industry. Most of these variables have not been identified previously (Birkinshaw, 2001; Birkinshaw & Lingblad, 2005; Fauli-Oller & Giralt, 1995; Kalnins, 2004).

1.1. Literature review

Both industrial organization researchers and game theorists have acknowledged the existing paradox between cooperation and competition for several decades (Burns & Stalker, 1961; Lawrence & Lorsch, 1967; Parkhe, Rosenthal, & Chandran, 1993). While a few researchers have conducted studies directly addressing this paradox, others have simply focused on inter-unit competition. For the purpose of conciseness, I take the latter approach. However, I do confer a few important studies highlighting the former approach.

1.1.1. Coexistence of inter-unit competition and inter-unit cooperation

A few scholars have argued that inter-unit cooperation and competition can coexist (Bengtsson & Kock, 2000; Eisenhardt & Galunic, 2000). As Mintzberg (1991) mentioned that the 'catalytic forces' of cooperation and competition within organization should be balanced to maintain organizational effectiveness. He posits that these two forces are likely to be internally influenced by direction (vision), efficiency, proficiency, concentration, and innovation. Similarly, Birkinshaw (2001) conducted a study in ten companies over a period of five years, to recommend that decision to allow competing business units to coexist or to consolidate depends on factors such as technological uncertainty, market uncertainty and heterogeneity, cost of duplication, size of market, decision to make or buy, critical mass, speed of market entry, cannibalization, and complementarities such as cross-branding etc. He analyzed competition for technologies and competition for business lines independently, although both had several overlapping conditions.

To understand managerial action of competition or cooperation within organization using a principal/agent framework, Fauli-Oller and Giralt (1995) illustrated a two-stage game. In the first stage, the principal (management) chooses incentive schemes and then the agents (divisions) make their decisions. In the second game, each agent is managed independently and the principal monitors the performance and provides incentives. Econometric models were developed to determine that when divisions incur positive spillovers (e.g. sharing technology) cooperation is likely to be stimulated but when agents experience negative spillovers (sell substitute products), competition is needed.

1.1.2. Inter-unit competition

Most of earlier research on inter-unit competition was grounded in organizational behavior management theory. This research stream largely examined competition among individuals, small teams, groups, and departments in either educational (Johnson, Johnson, & Tauer, 1979; Manns & March, 1978; Workie, 1974) or laboratory settings (Bruning, Sommer, & Jones, 1966). More recent research in industrial setting has been noted in the automotive industry (Peters & Waterman, 1982), package delivery industry (Kortick & O'Brien, 1996), and fast food industry (Kalnins, 2004).

Analyzing divisional competition in fast food industry, Kalnins (2004) found that firms with incentives to induce competition among divisions attempt to avoid intra-organizational and cross-organizational divisional multi-market contact, whether it exists at a high or low level and this relationship is further strengthened if the firms own divisions dominate the market. He also found empirical evidence for the hypotheses that a division's level of existing intra and cross-organizational multi-market contact with an uncertain market's incumbent divisions is positively related to the probability that the division will be chosen to operate in that uncertain market.

More recently, Birkinshaw and Lingblad (2005) studied the concept of intra-firm competition in detail defining intra-firm competition 'as the extent of overlap between the charters of two or more business units in a single organization' (pg: 676). Adopting the definition of charter as stated by Gulani and Eisenhardt (2001), Birkinshaw and Lingblad (2005) conceptualize charter as: product market served, capabilities held by the units, and intended charters. Although the primary thrust of the paper revolves around favoring intra-firm competition the recommended inverted U-shaped performance implications incorporates the disadvantages of intra-competition as well. In this paper, the authors develop a 2×2 matrix along the dimensions of charter overlap (low and high) and charter definition (fluid and fixed) between organizational units, to identify two generic forms of intra-firm competition; the dynamic community with fluid and frequently changing charter boundaries and the freedom to shape their own charters and the other form is coexistence where there is increased charter overlap servicing multiple product markets through economies of scope and differentiation yet remaining static within their charter boundaries. They also develop a framework to specify the environmental factors of environmental equivocality, industry maturity and market heterogeneity as well as organizational factors of decentralization of decision-making, normative integration, and fungibility of unit capabilities as determinants of intra-firm competition.

In this paper, inter-unit competition is defined as 'rivalry among business units or divisions for current and potential product markets and technologies, and for organizational resources.' (Chandy & Tellis, 1998). I narrow my discussion to units of high technology organizations, as the impact of intra-firm competition would be most evident in units of high technology organizations due to the uncertain and equivocal nature of the industry (Chandy & Tellis, 1998). The industry dynamics requires organizations to respond astutely and quickly to external pressures by constant environmental scanning, speedy market entry, and new product or technology development. I also want to acknowledge here that sub-units or product groups within organizations could be set up to reap the benefits of internal competition as well but in this paper, I assume that competition is encouraged among business units or divisions.

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