Post-Acquisitions Structures in Cross-Border M&As: An Innovation-Based Perspective

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#### Introduction

It is shown that cross-border M&A deals have risen sharply from 3,442 deals in 1990 to 9,696 deals in 2014 (UNCTAD, 2015). In spite of this substantial growth and the popularity of cross-border mergers and acquisitions (M&As), it is reported that the ratio of M&As demonstrating successful performance is disappointing.

Only around four out of ten M&A events produce successful outcomes, and the rest fail to achieve their original purposes (Child et al., 1999). Such high risks associated with M&As have drawn scholarly attention to post-acquisition structure where an acquiring firm decides to structurally integrate an acquired firm (i.e., structural integration) or separate it (i.e., structural separation) (Grimpe, 2007; Zollo & Singh, 2004). This is an important strategic decision because depending on the choice of post-acquisition structure, the way an acquiring and acquired firm execute tasks differs, and therefore the drivers of M&A success will differ (Cording et al., 2008). However, our understanding of how structural integration and separation affect the performance outcomes associated with M&As is limited.

At the heart of the post-acquisition process in which an acquiring and acquired firm engage in post-acquisition conduct lies the choice of 'structural integration' and 'structural separation' (Cording et al., 2008, Puranam et al., 2006), which is determined by the extent to which the operational activities across the functional units of an acquiring and acquired firm are integrated and separated (Zaheer et al., 2013). Identifying structural integration and structural separation of an acquired firm as decisive for M&A success, the literature largely investigates the direct path from structural integration and structural separation to M&A outcomes within the efficiency-based perspective and the process perspective (Grimpe, 2007; Zollo & Singh, 2004). However, without considering post-acquisition conduct, our understanding of M&A outcomes arising from structural integration and structural separation is limited. That is, their effects on M&A outcomes can be better understood by mediating mechanisms that explain post-acquisition conduct. Drawing on March's (1990) exploitation and exploration paradigm, this study examines exploitation and exploration innovation as mediators that represent post-acquisition conduct. In seeking to improve the understanding of the role of post-acquisition structure in achieving M&A success, this study builds innovationbased mediating models in which the relationships between structural integration, structural separation, M&A performance, and new product development (NPD) performance are mediated by exploitation and exploration innovation.

## **Research Questions and Hypotheses**

This study aims to shed light on how structural integration and structural separation affect M&A and NPD performance through exploitation and exploration innovation. To this end, we focus on the following research question: *How does post-acquisition structure affect M&A outcomes from an innovation-based perspective?* 

Based on existing literature on the logics behind the requirements of organisational structure for exploitation and exploration innovation (Burgelman, 2002; Jansen et al., 2006), this study argues that structural integration and separation require exploitation and exploration innovation in cross-border M&As to translate structuring decisions into successful performance outcomes. This argument about the indirect effects of exploitation and exploration innovation within cross-border M&As is built on hypotheses that exploitation innovation mediates the effect of structural integration on M&A performance (H1a) and NPD performance (H1b) and exploration innovation mediates the effect of structural separation on M&A performance (H2a) and NPD performance (H2b).

## Methodology

This study used a survey method for data collection and observed cross-border M&A events completed between UK acquiring firms and non-UK acquired firms between January 2012 and July 2015 with a 100% full equity stake. An initial listing of 1,022 acquiring firms identified from the database *Thomson One Banker* was reduced to a workable sample of 593 sampling firms on the criteria of firm location, firm status, and data accessibility.

The preliminary version of the survey was pilot tested by seven academics and amended according to their feedback in April and May 2015. Then, the survey was transformed into an online version and distributed to the senior-level managers of the 593 sampling firms from June to December in 2015. Out of 593 firms, 143 responses were collected, representing a response rate of 24.1%.

Sourcing and adapting well-established and validated scales from prior literature, this study measured the following constructs: (1) structural integration and structural separation (Zaheer et al., 2013); (2) exploitation and exploration innovation (Jansen et al., 2006); (3) M&A performance (Reus & Lamont, 2009; Schoenberg, 2004) and NPD performance (Atuahene-Gima et al., 2005). All of the measurement items of the constructs were used on seven-point Likert scales.

Along with the assessment of the data set regarding its reliability and validity by factor analysis, Cronbach's alpha, and Harman's single factor test, we used Andrew Hayes'

PROCESS macro to examine the indirect effect size of mediating models by kappa-squared  $(K^2)$  and their significance by the Sobel test (Z). The PROCESS macro tested the mediating effects of (1) exploitation innovation on the relationships between structural integration on M&A and NPD performance (H1a and H1b) and (2) exploration innovation on the relationships between structural separation and M&A and NPD performance (H2a and H2b).

### **Results**

Table 1 shows the results of the mediation mechanisms of exploitation and exploration innovation. Examination of specific indirect effects reveals that exploration innovation insignificantly mediates the effects of structural separation on M&A and NPD performance. Despite no mediation effect of exploration innovation detected, there is the partially significant mediating effect of exploitation innovation on the relationships between structural integration and M&A performance ( $K^2 = .10$ , CI [.03, .20]), p  $\leq .05$ ) and between structural integration and NPD performance ( $K^2 = .08$ , CI [.02, .17]), p  $\leq .05$ ). Therefore, Hypotheses 1a and 1b are only supported, but Hypotheses 2a and 2b are not supported.

Table 1. Mediation Results of Exploitation and Exploration Innovation

Kappa-Squared for Indirect Effects	Effects (K <sup>2</sup> )	Boot Lower, Upper	Sobel <sup>a</sup> (Z)
Structural Integration on M&A Performance via Exploitation Innovation	.10	.03, .20	Partial*
Structural Separation on M&A Performance via Exploration Innovation	.01	.00, .06	None
Structural Integration on NPD Performance via Exploitation Innovation	.08	.02, .17	Partial*
Structural Separation on NPD Performance via Exploration Innovation	.02	.00, .08	None

Note. N = 143, <sup>a</sup>Based on 2,000 bootstrap resamples using the Sobel test, \*  $p \le .05$ 

#### **Discussion**

This study addresses an issue of how the choice of post-acquisition structure affects post-acquisition innovation and subsequently M&A outcomes and finds that exploitation innovation mediates the relationships between structural integration and M&A performance (H1a) and NPD performance (H1b).

In line with the process perspective and the efficiency perspective on structural integration as a determinant of M&A and NPD performance (Grimpe, 2007; Zollo & Singh, 2004), this study shows that structural integration improves M&A and NPD performance.

Building on previous calls about a need to construct a mediating variable to translate into performance outcomes from post-acquisition structure (Cording et al., 2008), this study identifies indirect effects arising from exploitation innovation that mediates superior performance. In addition, and in response to long-standing calls about a need to structure operations in a way that improves efficiency and maximises leveraging existing resources and capabilities to realise exploitation innovation (Burgelman, 2002; Jansen et al., 2006), this study shows that structural integration is appropriate post-acquisition structure for exploitation innovation (Puranam et al., 2006). That is, structural integration plays the single most essential role in realising exploitation innovation and gaining superior M&A and NPD performance. Exploitation innovation is the mediatory cause of M&A and NPD performance. Therefore, this study contributes to existing knowledge on the role of structural integration in gaining M&A success from an innovation-based perspective and the role of exploitation innovation as a mediator in the relationships between structural integration and M&A and NPD performance.

In contrast to our expectation, the hypotheses regarding structural separation (H2a and H2b) are found to be insignificant. These findings fail to support a widely accepted view of structural separation as a way that increases its diminished relative standing (Hambrick & Cannella, 1993) and preserves its innovation capabilities (Puranam et al., 2006). Thus, the research findings of structural separation are inconsistent with previous literature showing that structural separation is a predictor of superior M&A performance (Very et al., 1997), NPD performance (Atuahene-Gima, 2003), and exploration innovation (Burgelman, 2002). These results inconsistent with previous results can be interpreted building on the characteristics of our sample data, which were limited to relatively young cross-border M&As, and the theoretical logics behind organisational routines (Hoang & Rothaemel, 2010; Lavie & Rosenkopf, 2006).

### Conclusion

Insisting on post-acquisition structure as a strategic tool for guiding an acquiring and acquired firm to appropriate post-acquisition conduct and then firm performance (Cording et al., 2008), this study built mediating mechanisms of the relationships between post-acquisition structure and M&A outcomes. Employing exploitation and exploration innovation as the key to unlocking M&A outcomes, this study developed and tested innovation-based mediating mechanisms in which structural integration and structural separation affected M&A and NPD performance through exploitation and exploration innovation. This study

found that exploitation innovation positively mediated the relationships between structural integration and M&A and NPD performance. Therefore, structural integration was a prerequisite for successful cross-border M&As. Exploitation innovation was the key driver of successful M&A and NPD performance. On the other hand, there was no evidence of autonomy as a determinant of M&A and NPD performance.

#### References

Atuahene-Gima, K. 2003. The Effects of Centrifugal and Centripetal Forces on Product Development Speed and Quality: How Does Problem Solving Matter? . *The Academy of Management Journal*, 46(3): 359-373.

Atuahene-Gima, K., & Murray, J. Y. 2007. Exploratory and Exploitative Learning in New Product Development: A Social Capital Perspective on New Technology Ventures in China. *Journal of International Marketing*, 15(2): 1-29.

Atuahene-Gima, K., Slater, S. F., & Olson, E. M. 2005. The Contingent Value of Responsive and Proactive Market Orientations for New Product Program Performance. *Journal of Product Innovation Management*, 22(6): 464-482.

Burgelman, R. A. 2002. Strategy as Vector and the Inertia of Coevolutionary Lock-in. *Administrative Science Quarterly*, 47(2): 325-357.

Child, J., Pitkethly, R., & Faulkner, D. 1999. Changes in Management Practice and the Post-Acquisition Performance Achieved by Direct Investors in the UK. *British Journal of Management*, *10*(*3*): 185–198.

Cording, M., Christmann, P., & King, D. R. 2008. Reducing Causal Ambiguity in Acquisition Integration: Intermediate Goals as Mediators of Integration Decisions and Acquisition Performance. *The Academy of Management Journal*, *51*(4): 744-767.

Grimpe, C. 2007. Successful Product Development after Firm Acquisitions: The Role of Research and Development. *Journal of Product Innovation Management*, 24(6): 614–628.

Hambrick, D. C., & A, C. A. 1993. Relative Standing: A Framework for Understanding Departures of Acquired Executives. *Academy of Management Journal*, *36*(4): 733-762.

Hoang, H., & Rothaermel, F. T. 2010. Leveraging Internal and External Experience: Exploration, Exploitation, and R&D Project Performance. *Strategic Management Journal*, *31*(7): 734–758.

Lavie, D., & Rosenkopf, L. 2006. Balancing Exploration and Exploitation in Alliance Formation. *The Academy of Management Journal*, 49(4): 797-818.

Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. 2006. Exploratory Innovation, Exploitative Innovation, and Performance: Effects of Organizational Antecedents and Environmental Moderators. *Management Science*, 52(11): 1661-1674.

March, J. G. 1991. Exploration and Exploitation in Organizational Learning. *Organization Science*, *2*(*1*): 71-87.

Puranam, P., Singh, H., & Zollo, M. 2006. Organizing for Innovation: Managing the Coordination-Autonomy Dilemma in Technology Acquisitions. *The Academy of Management Journal*, 49(2).

Reus, T. H., & Lamont, B. T. 2009. The Double-Edged Sword of Cultural Distance in International Acquisitions. *Journal of International Business Studies*, 40(8): 1298–1316.

Schoenberg, R. 2004. Dimensions of Management Style Compatibility and Cross-Border Acquisition Outcome. *Advances in Mergers and Acquisitions*, *3*: 149–175.

UNCTAD (United Nations Conference on Trade and Development) 2015. World Investment Report 2015. United Nations.

Very, P., Lubatkin, M., Calori, R., & Veiga, J. 1997. Relative Standing and the Performance of Recently Acquired European Firms. *Strategic Management Journal*, 18(8): 593–614.

Zaheer, A., Castañer, X., & Souder, D. 2013. Synergy Sources, Target Autonomy, and Integration in Acquisitions. *Journal of Management*, *39*(*3*): 604-632.

Zollo, M., & Singh, H. 2004. Deliberate Learning in Corporate Acquisitions: Post-Acquisition Strategies and Integration Capability in U.S. Bank Mergers. *Strategic Management Journal*, 25(13): 1233-1256.