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THE INTEGRATION GAME – HOW START-UP ACQUISITIONS IMPACT ORGANIZATIONAL AMBIDEXTERITY



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ABSTRACT

Focusing on organizational ambidexterity is imperative for corporations to secure competitive advantage. To do so, start-up acquisitions help established companies complementing their internal innovativeness. Our survey with 116 start-up acquisitions shows how the acquired start-up's autonomy and functional integration impact the acquiring unit's innovativeness. Interestingly, autonomy and integration can co-exist and are both positively associated with radical and incremental innovativeness. However, on a functional level we show that radical innovations are much more related to R&D autonomy, while incremental innovations are especially related to deep R&D integration. We hereby advance contradictions in corporate entrepreneurship research regarding the integration-autonomy dilemma and provide practical implications for managerial practice when it comes to new venture acquisitions.

INTRODUCTION

Sustaining competitive advantage demands simultaneously operating in mature markets and developing novel offers to succeed in future business fields (Duncan, 1976; March, 1991). As innovation cycles accelerate and the source of innovation noticeably shifts towards new ventures and thus outside incumbent firms, competition intensifies. This accentuates incumbents' need for concurrent exploitation and exploration, i.e., organizational ambidexterity (O'Reilly & Tushman, 2013). Required knowledge and technologies can either be nurtured internally (O'Reilly et al., 2009) or acquired externally (Maula, Keil & Zahra, 2013). External corporate venturing via start-up acquisitions can help to complement internal exploitative and explorative innovativeness (Weiblen & Chesbrough, 2015). In this regard, the question how established companies can successfully incorporate innovations from corporate venturing has been central to recent corporate entrepreneurship research (e.g. Narayanan, Yi & Zahra, 2009).

When looking at the post-acquisition phase, recent research indicates that contextual factors such as relatedness, corporate culture, or M&A experience influence acquisition implementation success (e.g. Bauer & Matzler, 2014; Laamanen & Keil, 2008). Likewise, outcomes depend on structural interventions such as integration speed (Homburg & Bucerius, 2006) or different leadership actions (Graebner et al., 2004). However, current research can still not explain how incumbents should balance start-up integration and autonomy to achieve organizational ambidexterity (Benson & Ziedonis, 2009; Corbett et al., 2013). While high integration levels facilitate a direct transfer of tacit and complex knowledge between the acquired start-up and corporate business units (Puranam & Srikanth, 2007), lacking start-up autonomy impedes its innovativeness, which constitutes an integration-autonomy trade-off (Burgers et al., 2009).

To address this research gap, our study builds on recent corporate entrepreneurship findings (e.g. Corbett et al., 2013; Schildt, Maula & Keil, 2005) and incorporates M&A and strategy research. We contribute to entrepreneurship theory in two major ways. First, we analyze a unique data sample which explicitly focuses on large corporations acquiring start-ups and considers vital contextual factors. Hitherto general post-acquisition insights are thereby refined for external corporate venturing via start-up acquisitions, facing increased cultural differences and uncertainty (Weiblen & Chesbrough, 2015). Second, we empirically assess distinct integration-autonomy settings on a functional level. By analyzing the links between functional post-acquisition settings and organizational ambidexterity, this study is one of the first to explain how ambidexterity relates to the integration-autonomy dilemma in the corporate entrepreneurship context.

HYPOTHESES DEVELOPMENT

Decision autonomy refers to the “amount of day-to-day freedom that the acquired firm management is given to manage its business . . . without close control by the parent company” Datta and Grant (1990, p.31). In their recent work, Zaheer et al. (2013) outline that decision autonomy and functional integration should not be treated as the two ends of a single continuum. When it comes to post-acquisition integration, a simultaneous need for both functional integration and decision autonomy may be observed. Patanukul, Chen and Lynn (2013) analyze under which circumstances autonomous teams are most successful when it comes to new product developments. They show that for radical product developments, autonomous teams perform best when compared to other team structures, while for incremental innovations, more heavyweight teams may be advantageous. They argue that autonomous team characteristics promote information-processing abilities that are necessary to achieve radical innovations (c.f. Chen & Lin, 2004). In turn, Chen et al. (2005) show that in case of routine tasks and low need for frequent decision-making, autonomy is not always required. However, research shows that a loss of the acquired target’s decision autonomy in general leads to several negative consequences such as lowered intrinsic motivation of key employees (Osterloh & Frey, 2000) or even the departure of key executives (Hambrick & Cannella, 1993; Ernst & Vitt, 2000). We therefore presume:

Hypothesis 1a: Post-acquisition autonomy of the acquired start-up positively relates to radical innovativeness

Hypothesis 1b: Post-acquisition autonomy of the acquired start-up positively relates to incremental innovativeness

Furthermore, in the specific context of company acquisitions, several researchers showed that functional integration, which describes the extent to which functional activities of the target are consolidated with the acquiring unit (Zaheer et al. 2013), negatively impacts the motivation and ongoing innovation of the acquired company (Birkinshaw 1999; Ranft & Lord, 2002; Graebner, 2004) which is especially important for radical innovations. Puranam and Srikanth (2007) outline that especially the standardization of work practices cause disruption in the acquired firm, as its procedures need to be changed and thereby dampen the acquired firm’s innovative capability (Barqawi et al., 2016; Benner & Tushman, 2003, Ranft & Lord, 2002). Burgers and Jansen (2008) show that also in the context of corporate venturing, formal organizational integration impedes innovativeness. We therefore follow:

Hypothesis 2a: Post-acquisition functional integration of the acquired start-up negatively relates to radical innovativeness

Many studies promote the idea of separating incremental from radical innovative activities (cf. Hill & Rothaermel, 2003; Hill & Birkinshaw, 2007) as their focus and thus required setup is different. According to knowledge-based theory (Grant & Baden-Fuller, 1995), functional integration is necessary in order to exchange knowledge between the acquiring company and the target. Especially for socially complex and tacit knowledge, which may enable incremental innovations through knowledge exchange between units, knowledge integration is more important than the knowledge itself (Grant, 1996). According to Patanukul, Chen and Lynn (2013), formalized teams are superior when it comes to incremental innovations. A set of different organizational integration mechanisms such as hierarchy and feedback (Puranam & Srikanth, 2007) can form common goals, procedures and authority and thus enhance the interaction between both units (Haspeslagh & Jemison, 1991). What is more, these formal effects may also strengthen an informal knowledge exchange between the two firms. Concurrent collocation further increases this effect (Puranam & Srikanth, 2007). Shared and mutual access to documents and codified knowledge of previous innovation activities positively impacts future development activities in related fields. Such access is positively influenced by administrative integration (Haspeslagh & Jemison, 1991; Zollo, 1998). We therefore state:

Hypothesis 2b: Post-acquisition functional integration of the acquired start-up positively relates to incremental innovativeness

We can furthermore infer from the arguments outlined above:

Hypothesis 3a: Radical innovations have a significantly higher relation to the decision autonomy of the acquired functions than to their functional integration

Hypothesis 3b: Incremental innovations have a significantly higher relation to the integration of the acquired functions than to their decision autonomy

METHOD

We conducted a survey among integration managers of established companies that were involved in at least one start-up acquisition over the last years. The core focus of analysis was on deals between 2010 and 2014. By choosing this period, we excluded acquisitions where integration was still ongoing, and thus have not yet significantly affected outcomes, and older transactions where details on the integration cannot be obtained anymore due to managerial turnover (cf. Homburg & Bucerius, 2006). In exceptional cases where sufficient information was still available and the final integration was already completed and thus outcomes observable, acquisitions outside of this narrow time frame were also accepted. The sample criteria for acquirers (more than 1,000 employees) and targets (younger than twelve years) follow previous post-acquisition studies (cf. Benson & Ziedonis, 2009; Puranam et al., 2009). We focus on Central European countries and cover different industries to enable generalizability of findings. We identified the relevant managers by investigating the social networks Xing and LinkedIn. Subsequently, they were individually called and the survey was sent out. The sample comprised of a list of 591 potential respondents. After two reminders via e-mail, we received in total 116 usable responses, which is equal to a response rate of 19.6%. This response rate is in line with other research in this field, given the length of the survey, the sensitivity of this topic and the specific and high-level target group (c.f. Homburg & Bucerius, 2006; Jansen et al., 2009; Zaheer et al., 2013)

We applied Harman's single factor test (Podsakoff, MacKenzie, Lee & Podsakoff (2003) to assess the possibility of systematic bias due to one key informant and thus to control for common-method bias. Five factors, in total accounting for 77% of the cumulated variance and individually explaining between 10 and 26% of the variance, were retained as having eigenvalues larger than 1.0. It can therefore be inferred that there is no significant problem resulting from a single-source bias. In addition to this, we follow current research that mitigates and controls common method bias while relying on key informants (e.g. Simsek, Veiga & Lubatkin, 2007; Zaheer et al., 2013). We assured all participants that their responses are anonymous and confidential and pre-tested the scales with several academics and practitioners to assure clarity and parsimony (Podsakoff et al., 2003). To test for potential non-response bias, we divided our total sample in two equal groups and tested for their differences as discussed by Armstrong and Overton (1977). We investigated the differences regarding radical and incremental innovativeness, functional integration and decision autonomy, each on both firm-level and functional R&D level. For all items except decision autonomy on firm-level, we found no statistically-significant difference between the two groups and therefore suggest that non-response bias is not an issue.

The dependent variable organizational ambidexterity is operationalized by the two forms of innovativeness. That is on the one hand radical innovativeness ($\alpha = .86$) with a mean of 4.25 and on the other hand incremental innovativeness ($\alpha = .86$) with a mean of 4.29. The variables are operationalized according to Subramanian & Youndt (2005). The independents autonomy ($\alpha = .89$, mean 4.32) and integration ($\alpha = .87$, mean 4.23) are based on Zaheer et al. (2013) and measured on a functional level. All items are assessed on a 7-point Likert scale.

Besides standard influences such as environmental turbulence, we control for company relatedness based on Capron (1999) and management style similarity based on Homburg and Bucerius (2006).

RESULTS

Based on our regression analyses, we find support for four of our six initial hypotheses. In the following we outline our results and suggest one adaptation of the model in order to explain one of the main effects. Empirical evidence supports Hypothesis 1a. Autonomy of the acquired new venture positively relates to radical innovativeness of the acquiring unit post-acquisition ($\beta = .27$ $t = 2.72$, $p < .01$). In line with Hypothesis 1b, decision autonomy of the acquired unit also positively relates to incremental innovativeness ($\beta = .33$ $t = 3.13$, $p < .01$). Hypothesis 2a, i.e. the negative association between functional integration and radical innovation is not supported. On the contrary, we find that the reverse effect is significant. Functional integration is positively associated with radical innovations ($\beta = .25$ $t = 2.21$, $p < .05$). Hypothesis 2b, the positive association between functional integration and incremental innovation can be supported ($\beta = .33$ $t = 3.14$, $p < .01$).

Regarding Hypothesis 3a and 3b, it becomes obvious that radical innovations are slightly higher related to autonomy of the acquired venture ($\beta = .27$) than to its functional integration ($\beta = .25$). In the case of incremental innovation, we see that autonomy and integration are both equally associated ($\beta = .33$). In sum, our analyses show that in general, both autonomy and integration are positively related to innovativeness. We so far only discussed the functional integration and decision autonomy on a corporate level. However, various functions play different roles in the corporate context and especially the R&D department is the most relevant function when it comes to innovations and the development of novel products and services (Cassiman et al., 2005). Therefore, a functional perspective should be applied. Looking at the functional level, we show that

a high integration of R&D functions is much more positively related to incremental innovativeness ($\beta = .34$ $t = 3.44$, $p < .01$) than to radical innovativeness ($\beta = .18$ $t = 1.69$, $p < .1$). Conversely, high R&D autonomy is more positively associated with radical ($\beta = .30$ $t = 2.90$, $p < .01$) than with incremental innovations ($\beta = .27$ $t = 2.61$, $p < .05$). We therefore find strong evidence for our Hypotheses 3a and 3b on a functional level, namely for the integration and decision autonomy of R&D functions.

DISCUSSION & IMPLICATIONS

Focusing on both explorative and exploitative actions and therefore striving for radical and incremental innovations at the same time is crucial for established corporations in order to sustain their competitive advantage (O'Reilly & Tushman, 2013). Start-up acquisitions prove to be a successful complement to internal innovativeness (Weiblen & Chesbrough, 2015). However, up to now it remained unclear how established companies should design the post-acquisition setup, especially regarding the acquired start-up's decision autonomy and functional integration (e.g. Benson & Ziedonis, 2009). So far, the literature on post-acquisition integration fell short on two important dimensions. On the one hand, autonomy and integration were mainly treated as two ends of a single continuum (e.g., Datta & Grant, 1990; Puranam et al., 2006). The initial idea of Haspeslagh & Jemison (1991), pointing out that, if required, both mechanisms may simultaneously exist, was hereby not considered. We revisit Haspeslagh and Jemison's focal work on M&A and apply it to the specific case of new venture acquisitions and hereby advance the conceptual model of acquisition implementation. Our analyses expose that new venture acquisitions, characterized by increased uncertainty and cultural differences between the involved units (Weiblen & Chesbrough, 2015), is exactly such a setting in which both mechanisms require co-existence. We therefore conclude that autonomy and integration of start-ups are not contradictory for the post-acquisition phase but require careful orchestration in order to fully leverage the acquired potential.

On the other hand, our results also advance current contradictions in corporate entrepreneurship discussions on exerting control over acquired innovation for successful exploration and exploitation (see Phene et al., 2012; Schildt et al., 2005). On a corporate level, our analyses could not find any evidence with regards to which integration mechanism favors which kind of innovation. Both incremental and radical innovations, i.e. exploratory and exploitative activities, are equally related to integration and autonomy. However, on a functional level, we are able to show that the way how the post-acquisition mechanisms of the R&D functions are designed, indeed make a difference. For exploratory activities, aiming at radical innovations, R&D decision autonomy is required. Contrasting this, for exploitative activities aiming at incremental innovations, the functional integration of the respective departments is much more important. These findings show that distinct implementation mechanisms are preferable over dichotomous and universal decisions to resolve the integration-autonomy dilemma in corporate entrepreneurship. What is more, we directly link the concept of organizational ambidexterity to corporate entrepreneurship and post-acquisition mechanisms, an effort often asked for in recent publications (e.g. Jansen et al., 2009)

Besides theoretical implications, our work also has relevant implications for managerial practice. First, we show that in the course of post-acquisition integrations, acquiring companies need to be clear whether to aim for an incremental improvement of existing offers or for radical innovations. Based on the respective choice, the implementation mechanisms should be designed. The R&D department is hereby of increased importance. Second, the results of the study motivate

the relevance of co-existing structures of autonomy and integration. Granting decision autonomy to the acquired start-up allows to simultaneously integrate the new venture into the corporate structures and simultaneously eases knowledge exchange and leads to subsequently increased innovativeness. Third, start-up acquisitions can increase both corporate's exploitative and explorative capabilities. External corporate venturing thus helps established companies to secure and increase their sustainable competitive advantage. Not despite, but because of the source of innovations noticeably shifting towards new ventures.

Our work also entails some limitations, at the same time providing avenues for future research. First, as our study relies on one questionnaire, it is obvious that there is a single source of information for both the independent and dependent variable. This specific topics and depth on investigation does not allow to leverage secondary data to back up the results. We aimed at mitigating the risk of common method bias as described before and controlled for it in our calculations. As the acquisition of new ventures is a relatively new phenomenon and relevant deals are still rare, we could only leverage a limited sample size. Future research may revisit these analyses, making use of a larger data set. Potentially also having the chance to incorporate dyad responses which was not possible in our study as mostly only one person was familiar with the respective details, may help to validate our findings. Second, we only focused on Central European companies. Despite taking into account national and cross-border acquisitions, results may still differ in other regions such as the US or Asia. Future research may consider a cross-cultural study, taking into account national differences. Lastly, as our data were not longitudinal, we cannot assess whether the mechanisms' effect changes over time depending on the respective setting. Future research may take into account longitudinal effects to investigate this phenomenon in more detail.

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