Business model innovation vs. replication: Financial performance implications of strategic emphases

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Abstract

The purpose of this article is to examine the financial performance implications of a firm's strategic emphases regarding business model innovation vs. replication. Also implications of firm size are considered. Based on survey data of top managers' reports from approximately 500 firms, the authors analyze the differences in average profitable growth across firms that differ in their strategic orientations. It is found that firms that have a high strategic emphasis on business model innovation as well as a high emphasis on replication exhibit a higher average value of profitable growth than firms without such emphasis.

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Introduction

In recent years, there has been a growing academic interest in how firms innovate their business models (hereafter BM). Attention has emanated from strategic management (e.g., Amit and Zott, 2001; Hamel, 1998; Kim and Mauborgne, 1999a; Markides, 2006; Tucker, 2001), industrial economics (e.g., Augier & Teece, 2008; Chesbrough and Rosenbloom, 2002; Christensen, Johnson, and Rigby, 2002), and increasingly from the marketing discipline, as well (e.g. Matthyssens, Vandenbempt, and Berghman, 2006; Michel, Brown and Gallan, 2008; Sharma, Krishnan and Grewal, 2001). One way to consider BM innovation is to view it as an aspect of a firm's (innovative) corporate culture or capability (e.g. Conrad, 1999; Siguaw, Simpson and Enz, 2006; Hult, Hurley and Knight, 2004; Tellis, Prabhu and Chandy, 2009; Vázquez, Santos, and Álvarez, 2001) – and optimistically assume that the more innovativeness a firm exhibits, the better (cf. Simpson, Siguaw and Enz, 2006). This notion, however, needs to be empirically scrutinized.

Basing on survey data involving 545 firms in a Northern European country, we address the following, (1) the lack of empirical studies into the financial performance implications of a firm's strategic emphasis on BM innovation, (2) the lack of recognizing *replication* of successful BMs as a form of BM innovation, and (3) implications for large and small firms.

Theoretical Background

Recently, popular pieces of strategic management and innovation literature have argued for the superiority of strategies that create novelty into markets and networks through BM innovation (Hamel 1998, p. 8; Kim and Mauborgne 1997, 1999a, 1999b, 2005a, 2005b; Markides 1997, 2006). Also, in industry economics, Jacobides, Knudsen and Augier (2006), have suggested that an innovator firm's pursuit to reshape industry architectures around it can allow the firm capture a disproportionate amount of the benefits created by an innovation. Chesbrough and Rosenbloom (2002), demonstrate that firm success is more likely if it experiments with novel BMs built around core technological innovations. In the field of marketing, Schlegelmilch et al. (2003) investigate the matter under "strategic innovation", defined as "the fundamental reconceptualization of the BM and the reshaping of existing markets to achieve dramatic value improvements for customers and high growth for companies" (p. 118), and Matthyssens et al. (2006) view BM innovation is to "escape cut-throat competition and sustain competitive advantage" (p. 752).

However, only Szulanski, and Jensen (2008) seem to give consideration to the strategic dimension of *replication*. They find, that a replication strategy involves effortful investments in discovering and learning about which complex, interdependent, and partly tacit routines, processes, and customer-valued aspects of the new BM are actually replicable and worth replicating.

There also exist some empirical studies reporting high performance returns for firms exhibiting proactive innovation strategies (Gatignon and Xuereb, 1997; Green, Barclay, and Ryans, 1995; Wirtz, Mathieu, and Schilke, 2007). Additionally, the inadequate resource means for small firms to shape their environment has been commonly indicated (e.g., Cooper, Gimeno-Gascon, and Woo, 1994; Ebben and Johnson, 2005; Gibb, 2000; Lee, Lim, and Tan, 1999), whereas large firms have economies of scale and ability to bear the risk of innovating (Ali, 1994; Galbraith, 1952). Therefore:

Hypothesis 1a*:* Large firms with a high strategic emphasis on BM innovation but low on replication have *higher* average profitable growth than large firms with a low strategic emphasis on both BM innovation and replication.
Hypothesis 1b**:** Small firms with high strategic emphasis on BM innovation but low on replication have *lower* average profitable growth than large firms with a low strategic emphasis on both BM innovation and replication.

In comparison to large firms, small firms have greater ability to create and compete in new market niches (e.g. Chen and Hambrick, 1995; Dean, Brown, and Bamford, 1998; Porter, 1980). Therefore:

Hypothesis 2a**:** Large firms with high a strategic emphasis on BM innovation but low on replication have *lower* average profitable growth than large firms with a low strategic emphasis on both BM innovation and replication.
Hypothesis 2b**:** Small firms with a high strategic emphasis on BM innovation but low on replication have *higher* average profitable growth than large firms with a low strategic emphasis on both BM innovation and replication.

Importantly, having a strategic emphasis not only on BM innovation, but also on replication of successful (aspects of) one's (new) BM(s), may have different performance implications (Winter and Szulanski, 2001). Therefore:

Hypothesis 3a*:* Large firms with a high strategic emphasis on BM innovation and high on replication have *higher* average profitable growth than large firms with a high strategic emphasis on BM innovation but low on replication.
Hypothesis 3b: Small firms with a high strategic emphasis on BM innovation and high on replication have *lower* average profitable growth than large firms with a high strategic emphasis on BM innovation but low on replication.

Also, due to small firms' relatively high flexibility, they may be able to combine strategies of BM innovation and replication. (Chesbrough and Rosenbloom, 2002; Winter and Szulanski, 2001). Therefore:

Hypothesis 4a: Large firms with a high strategic emphasis on BM innovation and high on replication have *lower* average profitable growth than large firms with a high strategic emphasis on BM innovation but low on replication.
Hypothesis 4b*:* Small firms with a high strategic emphasis on BM innovation and high on replication have *higher* average profitable growth than large firms with a high strategic emphasis on BM innovation but low on replication.

Method

This research is based on a survey examining how two dimensions of strategic orientation, as emphasized by managers in subjective terms, related to performance differences across firms in a European country (Finland). Requests were emailed to 5,000 potential respondents with the title "CEO" or "marketing director" in a list procured from a commercial list broker. The firm population was found fairly representative of the target country, consisting of B2C, B2B and service-oriented companies (ranging from 2 persons to over 5000 with sales form below 200,000 to 10 billion Euros). 545 responses were received (10 % response rate). Non-response bias was controlled by comparing responses between the first and second email, and no statistically significant differences were found.

The overall approach in our study was to categorize the firms into the dimensions of (i) *BM innovation* and (ii) *replication*. BM innovation was measured by asking the respondent-manager to rate statements on a Likert scale (0=strongly disagree, 6=strongly agree), receiving good reliability (Cronbach's alpha=.81), and then split by median into "low" or "high":

- "In our strategy, it is central to make initiatives to create novel value by challenging existing industry-specific BMs, roles, and relations in certain geographic market areas."
- "In our strategy, it is central to make initiatives to provide entirely new value to certain people and/or organizations (customers)."

Emphasis on replication was measured by asking the respondents to rate the following statements on a Likert scale (0=strongly disagree, 6=strongly agree) again receiving good reliability (Cronbach's alpha=.90), and similarly split by median:

- "It is central in our strategy to replicate such a BM of ours that is successful in a certain market area, and take it into use in other geographic market areas as well."

- "It is central in our strategy to replicate such an offering of ours that provides novel customer value in a certain market area, and take it into use in other geographic market areas as well."

Financial performance was measured, first by asking the respondents to report the sales growth of his/her firm in the last year: "*How, approximately, did your company's sales develop last year from the previous year?*" Answers were provided on a scale of ten alternatives ranging from "*decreased more than 50%*" to "*increased more than 50%*". Second, we asked respondents to assess the development of the operating income percentage of his/her firm last year, relative to the previous year: "*Compared to the previous year, how did your SBU succeed last year with regard to operating income %?*" Alternatives ranged on a scale of seven items from "*much worse*" to "*much better*".

Responses to the first question were recoded to obtain a value corresponding to the mean of the indicated percentage range, then transformed to logarithm scale and standardized by dividing it with (double) the standard deviation of all the values. Responses to the second question were coded on an interval scale (1-7), and standardized by dividing with (double) the standard deviation of the values. The two standardized values per respondent-manager were then multiplied with each other to obtain a product value for profitable growth. Our goal was a theoretical examination, so the question where to draw the exact line between large vs. small firms was not considered an issue. Thus, we identified large vs. small firms on the basis of a median split, based on sales/turnover.

Findings

Table 1 presents the numbers and proportions of the firms in the sample, characterized by different strategic emphases on the BM innovation and replication. The group reporting low emphasis on BM innovation and high on replication was omitted due to its falling outside our theoretical scope.

Table 1. Frequencies of firms with different strategic orientations

		Strategic emphasis on business model innovation	
		Low	*High*
Strategic emphasis on business model replication	*Low*	"Strategic group 0" 192 (39.5%)	"Strategic group 1" 96 (19.8%)
	High	*not included in analysis* 60 (12.4%)	"Strategic group 2" 138 (28.4%)

To address hypotheses 1a-1b and 2a-2b, we examined the differences in profitable growth values across firms characterized by a high strategic emphasis on BM innovation but low on replication ("group 1"), and firms characterized by low strategic emphases on both BM innovation and replication ("group 0"). We performed a nonparametric alternative to the ANOVA, i.e., pairwise Median tests on the profitable growth measure across the groups.

Figure 1 shows the median values of profitable growth for groups 0 and 1, for large and small firms. For large firms, the median profitable growth value of group 0 (median=2.43) is higher than that of group 1 (median=2.29), and the difference between the groups is marginally significant (test statistic=14.5; Z=-1.26; p=.10). Thus, hypothesis H2a is supported and hypothesis H1a is rejected (it predicted average performance difference in opposite direction).

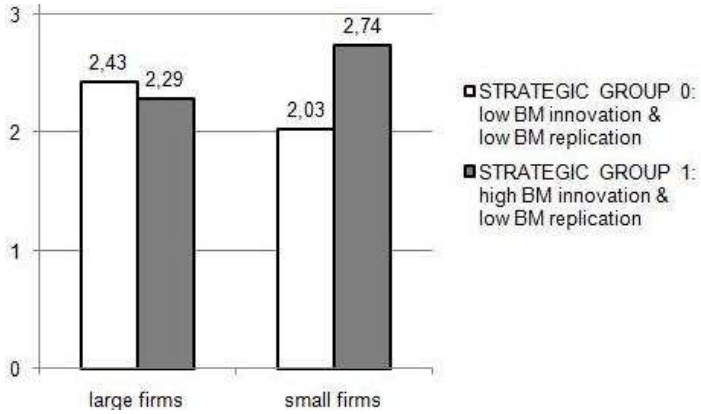

Figure 1. Median value of profitable growth: Comparison of strategic groups 0 and 1

In contrast, among small firms, median profitable growth value of group 0 (median=2.03) is *lower* than that of group 1 (median=2.74), the difference being also marginally significant (test statistic=33.8; *Z*=1.31; *p*=.10). Thus, hypothesis H2b is supported and hypothesis H1b is rejected (it predicted average performance difference in the opposite direction).

Hypotheses 3a-3b and 4a-4b were similarly tested, now to examine differences between firms characterized by high strategic emphases on both BM innovation and replication ("group 2") and firms with a high strategic emphasis on BM innovation but low on replication ("group 1").

Figure 2 shows the median values of profitable growth for small and large firm groups 1 and 2. For large firms, the median profitable growth value of group 1 (median=2.29) is lower than that of group 2 (median=2.74), the difference being significant (test statistic=12.7; *Z*=--1.99; *p*=.02). Thus, hypothesis H3a is supported. Hypothesis H4a is rejected (as it predicted, again, average performance difference in the opposite direction). For small firms, median profitable growth value of group 1 (median=2.74) is, in contrast, the same as that of group 2 (median=2.74), the difference bieng non-significant (test statistic=28.3; *Z*=-0.54; *p*=.30). Thus, neither H3b nor H4b is supported.

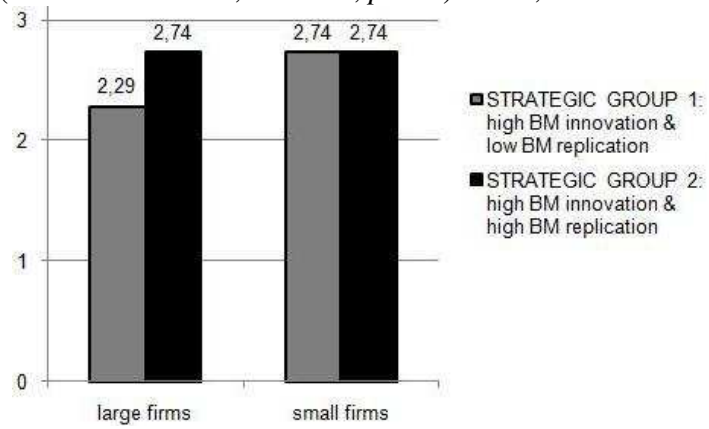

Figure 2. Median value of profitable growth: Comparison of strategic groups 1 and 2

Additionally, we compared the profitable growth values of firms in group 2 to those of firms in group 0. For large firms, the median profitable growth value of group 2 (median=2.74) is higher than that of group 0 (median=2.43), the difference being marginally significant (test statistic=42.4; *Z*=1.60; *p*=.05). For small firms, the median profitable growth value of group 2 (median=2.74) is also higher than that of group 0 (median=2.03), the difference being significant (test statistic=35.4; *Z*=1.61; *p*=.05). These findings suggest that firms with high strategic emphases on both BM innovation and replication have, on average, higher performance than firms that emphasize neither BM innovation nor replication, be the firm large or small.

Discussion and Conclusion

In this study, we examined the financial performance implications of strategies that emphasize the innovation of BMs. We found, that large firms with have a high emphasis on BM innovation but low on replication have lower average financial performance in terms of profitable growth than firms with low emphasis on both accounts. This finding runs contrary to certain notions which imply that BM innovation, on its own, would lead to superior performance outcomes (Hamel, 1998; Kim and Mauborgne, 2005b; Markides, 1997). Also, we found that those large firms that combine a high strategic emphasis on BM innovation with a high strategic emphasis on replication have superior average performance compared to others. This is consistent with Szulanski and Jensen (2008) and adds that mere BM innovation without replication is related to lower average financial performance than refraining from BM innovation altogether. This finding may be of managerial relevance also, suggesting that innovating BMs should not be seen as a value *per se*.

In contrast, small firms that have high emphasis on BM innovation but low on replication were found to have higher average growth than small firms that have low emphasis on both accounts. Thus, it may be more important for large firms to put effort in replicating the valuable and well-functioning aspects of their BMs. Small firms may not have much from which to replicate. It may also be more important for large firms to put conscious strategic emphasis on replication, so that novel BM ideas would not get hindered by the inertia of organizational structure (cf. Christensen, 1997). Flexibility may allow small firms to shift to a replication mode *ad hoc*.

Among small firms, the average profitable growth of firms that had high strategic emphases on both BM innovation and replication did not significantly differ from firms that had a high emphasis on BM innovation but low emphasis on replication. This may suggest that small firms will not have insurmountable problems in dividing their resources between the strategies of BM innovation vs. replication. This differs from earlier research stressing the difficulties that small firms face combining strategies (cf. Ebben and Johnson, 2005; Hughes, Hughes, and Morgan, 2007). In small firms, BM innovation and replication activities may overlap and a "proto" business-model may become developed through replication efforts (Chesbrough and Rosenbloom, 2002; Winter and Szulanski, 2001), making BM innovation and replication into complementary strategies.

Methodologically, the main limitation of the present study relates to our approach of asking the subjective report of firms' managers about the firm's strategic emphases. Also, influences of temporal perseverance or consistency of a chosen strategy on the financial outcomes was not uncovered. Additionally, our study is limited by a sample relying on a single country, even though Finnish companies are R&D intensive, high-technology oriented, and globally competitive (e.g., *Economist,* 2006; Ryan, 2008; Ylä-Anttila and Palmberg, 2007). These limitations could be overcome by gathering longitudinal (also cross-country) data about firms' strategies as well as performance and complementing the manager-reported data with more objective indicator data.

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