How Much Do Niche and Partnership Strategies Overlap for Small Technology Enterprises of Emerging Economies

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Abstract: The business strategy literature posits that both niche and partnership strategies help small firms to relax resource constraints. However, it is not clear how much these strategies overlap. Based on a survey of 469 small technology enterprises (STEs) in China, we find that STEs that use a niche and/or partnership strategy perform better than those that use neither strategy. Moreover, STEs that adopt both strategies simultaneously perform significantly better than those that adopt only one of the two strategies. No performance differentials are found between STEs that use a niche strategy and those that use a partnership strategy.

Keywords: Niche, Partnership, technology industries

1 Introduction

Over the past two decades, the number of small technology-based enterprises (STEs) in emerging economies (e.g., China and India) has been growing steadily, and some of these firms have successfully established their presence in international markets [1]. In China, for example, the number of STEs increased 21 times over the 20-year period from 1987 to 2006. In 2003 alone, 45% of exports, 65% of patents, 75% of technological innovations, and 80% of new product development in China were achieved by STEs [2]. In 2007, China’s STEs played an important role and contributed greatly to helping the nation reach the top position worldwide in technological competitiveness [3].

Despite the great increase in the number of STEs in emerging economies, they face numerous difficulties and challenges in their operations, especially constraints on finances, reputational resources and innovation [1]. Firms in technology industries must invest heavily in research and development (R&D) and rely on first mover advantage to compete [4]. They also need superior market awareness to reap the benefits of that first mover advantage [5]. However, size constraints limit their resources.

The weak technology infrastructure typical of emerging economies aggravates the abovementioned constraints. An emerging economy is a rapidly growing and structurally changing economy, and is often volatile [6]. That volatility is manifested in structural instability in industry and the lack of information verifiability and law enforceability. In technology industries, high R&D investment, short product lifecycles, rapid technology duplication and replacement rates, and intense competition lead to instability and uncertainty [7]. Existing resources can easily become obsolete if STEs do not respond quickly to rapid environmental changes. Hence, it is difficult for STEs to stabilize their capital sources because investors such as banks may not be confident about their market survival. In addition, emerging markets normally lack effective legal and institutional frameworks to protect intellectual property rights, which can lead to STEs losing their innovative advantage. The question to ask is how can STEs in emerging economies overcome these inherent resource constraints and enhance their profitability?

The business strategy literature indicates that both niche and partnership strategies can help firms to relax their resource constraints [4]. A niche strategy allows firms to concentrate their limited resources in narrow or small market segments, whereas a partnership strategy enables them to obtain additional resources. However, both strategies involve risks and costs. The risks involved in a niche strategy include the possibility that the niche will become unattractive, or that broadly targeted competitors will overwhelm that niche when environments change [4]. The risks involved in a partnership strategy include the possibilities that partners may create conflict or behave opportunistically in dynamic and uncertain environments [8]. As both strategies help firms to relax resource constraints, it is important to know whether they replicate or complement each other. If they replicate each other, then one strategy will be sufficient, because using both simultaneously will not improve firm performance but will incur additional risks and costs. Conversely, using both strategies simultaneously will be beneficial if the two are complementary. That is, firm performance will be improved without additional costs and risks being incurred. This study aims to explore these issues by comparing the performance related to niche and partnership strategies.

2 Literature Review

A niche strategy can be defined as the restriction of businesses within a market segment that is small, distinc-
Partnerships are structured agreements that establish external resources and thus help STEs to avoid direct competition with large firms. They can carve out niches by operating in the ‘cracks’ between large firms or seek ‘market holes’ into which large firms have not expanded sufficiently to fill demand [5]. The immature market structure and unstable government policies of emerging economies result in many small market niches that may not be suited to the operation scale of large firms and therefore provide sufficient opportunities for STEs to survive.

However, it should be noted that a niche strategy can also lead to increased risks and costs, especially in the dynamic and uncertain environments associated with both technology industries and emerging economies. For example, target niches may become unattractive if demand reverses or even disappears [4]. Broadly targeted (usually large) firms can enter and overwhelm niches when related technologies change. In addition, a niche strategy results in specialization, which makes it difficult for STEs to possess and combine different technologies; thus, they become less innovative. Finally, product and technology duplication is frequent in emerging economies because adequate legal frameworks are absent, and STEs in these economies may not have the competencies to enter other segments if duplication occurs.

Partnerships are structured agreements that establish exchange relationships between firms, excluding informal and less strategically motivated relationships between cooperating firms [9]. Partnerships can be an effective strategic option for small firms in volatile environments [14], and especially in emerging markets (e.g., references [6] and [15]).

In general, resource shortages are more severe among STEs in emerging economies than among those in developed economies. On the one hand, like their counterparts in developed economies, STEs in emerging economies have to invest heavily in R&D to achieve an innovator position—the key to maintaining a competitive advantage in a rapidly changing environment [14]. On the other hand, they should also establish brand equity to convince customers to shift to new products [5]. Establishing leading expertise (or knowledge) in related technologies and power brands requires financial and technological resources, but it is somewhat difficult for STEs to compete on these fronts even though they enjoy labor and material cost advantages.

Partnerships provide external resources and thus help STEs in emerging economies to overcome their resource constraints. Through partnerships, STEs can gain access to the financial and technological resources, distribution channels, and established brands of their partners [16], and can spread and reduce the costs and risks associated with innovation and new product development [17]. This is particularly advantageous in technology industries, which are characterized by short product life cycles, a rapid duplication/obsolescence rate, and intense competition [5].

Despite these partnership advantages, however, certain disadvantages cannot be overlooked. First, the success of STEs depends, to a great extent, on the uniqueness and sustainability of their technological resources, but resource sharing between partners means that those resources are no longer unique [14]. Second, opportunistic action by partners frequently occurs in emerging economies, in which laws and business regulations are not well established [6]. That opportunism is exacerbated by the environmental dynamism of technology industries, as contracts can neither predict nor specify the responsibilities of partners [14].

3 Hypothesis development

STEs in emerging economies suffer severe resource constraints that limit their potential profitability and even threaten their survival in rapidly changing environments. As previously mentioned, a niche strategy alleviates a firm’s financial resource shortages by concentrating its limited resources on R&D, production capacity, and distribution channels in a particular segment. The firm can achieve rapid segment penetration, which is necessary given the short product life cycles, rapid technology duplication, and intense competition that characterize technology industries. A partnership strategy alleviates resource shortages by the pooling of external resources. The firm can gain immediate access to the established distribution, promotion, and production facilities of its partners. Because a niche or partnership strategy helps a firm to relax its resource limitations, which can restrain the growth of profitability, either strategy should be positively related to firm performance.

As these strategies are important for STEs in emerging economies, we can infer that it will be difficult, if not impossible, for such firms to achieve good performance if they adopt neither strategy. We argue that technology industries require substantial investment in R&D and promotion, but the emerging economy background can further restrict a firm’s financial, technological, and market knowledge resources. Without a niche or partnership
strategy, STEs in emerging economies will find it difficult to overcome their resource limitations. In other words, few strategies other than a niche or partnership strategy will be able to help such enterprises overcome resource constraints. Thus, we propose:

H1a: STEs in emerging economies that adopt only a niche strategy tend to perform better than those that adopt neither a niche nor a partner strategy.

H1b: STEs in emerging economies that adopt only a partnership strategy tend to perform better than those that adopt neither a partner nor a niche strategy.

H1c: STEs in emerging economies that adopt both a niche and a partnership strategy tend to perform better than those that adopt neither.

Either a niche or a partner strategy will be sufficient for STEs in emerging economies if it can help them to achieve the goal of relaxing resource limitations. In other words, adopting both strategies simultaneously would be repetitive and redundant. The logic is that when an STE concentrates its resources on a single market niche, for example, it may not need many external resources. Similarly, if an STE enters into a partnership, then it can acquire complementary resources that permit its expansion across different product segments, thus making a niche strategy undesirable or even unnecessary.

More importantly, these strategies involve different risks and costs. The niche strategy usually involves small volumes and consequently the firm suffers high operation costs. Moreover, as previously suggested, the target niche can become unattractive or even uncompetitive when technologies and market demands change. The partnership strategy exposes STEs to other risks and costs as well. Partnerships limit a firm’s profitability as it requires the sharing of profits between partners. Frequent volatility in the returns, which occurs in dynamic and uncertain environments, will create conflicts and bring about additional costs in settling disputes. More seriously, partners are more likely to act opportunistically in such environments. This situation can weaken the basis for the success of partnerships, as they depend on tacit coordination and mutual trust between partners. In other words, coordination and trust in partnerships can be fragile when firms face environmental uncertainties and market jolts. Emerging economies, which are unstable, may aggravate the situation. Therefore, a firm that adopts both strategies simultaneously might not enjoy extra benefits or avoid extra costs, or both. Therefore, we propose:

H2a: STEs in emerging economies that adopt only a niche strategy tend to perform better than those that adopt both a niche and a partnership strategy.

H2b: STEs in emerging economies that adopt only a partnership strategy tend to perform better than those that adopt both a partnership and a niche strategy.

H2c: STEs in emerging economies that adopt both a niche and a partnership strategy tend to perform better than those that adopt neither.

Finally, there should not be performance differentials between STEs that use a niche strategy and those that use a partnership strategy. As both strategies help STEs in emerging economies to relax resource constraints, using either strategy should allow such firms to be free from the constraints that restrict profitability potential. That is, no additional benefits should be derived from using the other strategy to increase profitability.

However, these strategies can cause similar problems. As previously mentioned, market jolts that result from dynamic and uncertain environments in technology industries can lead to the disappearance of target niches, or such niches will be overwhelmed if the key technological resources of firms are duplicated. Similarly, market jolts can also lead to partnership failure because the resources of partners may no longer be complementary when the setting changes. In addition, an STE cannot survive if its key technological resources (used specifically in a small market) are duplicated because a partner acts opportunistically—an STE relies mainly on unique technological resources to achieve competitiveness in a dynamic environment, and loses its competitiveness if these resources are no longer unique. This is likely to occur in emerging economies as resource duplication is frequent in such economies because their legal framework and infrastructure are not well established. Hence, costs and risks can increase, which reduces the original economic gains from using the two strategies. In other words, the additional costs will outweigh the additional benefits. Thus, we propose:

H3: STEs in emerging economies that adopt a niche strategy and those that adopt a partnership strategy have similar performance.
tions (factor loading = 0.791).

Internal reliability tests yielded acceptable Cronbach’s alpha scores for both the niche and the partnership strategy, which indicates the ability of the underlying factor to account for the correlations of the observed constructs. The factor loadings were strong, indicating that all of the factors had good convergent validity. We also assessed discriminant validity by constraining inter-construct correlations in the measurement model to unity, and measuring the change in the $\chi^2$ statistic \[26\]. The change in the $\chi^2$ statistic ($\Delta \chi^2$ on 1 degree of freedom) was highly significant ($\Delta \chi^2 = 76.2$), indicating an imperfect correlation between the constructs.

We controlled for firm characteristics including firm size, age, leverage, and R&D intensity. Firm size was measured using sales revenues, which were transformed into natural logarithms. Firm age was measured by the actual existence of the firm since the first year of its operation. R&D intensity was measured using the annual expenditure on research and development investment divided by total sales revenue. For the level of a firm’s leverage, we computed the ratio of its long-term debt to its total assets.

5 Model Design

To test the hypotheses, we designed the models as follows. First, four separate models were used to test the first set of hypotheses ($H_{1a}$ to $H_{1c}$). The first model was the base model (Model 1), which included the control variables only. The second to fourth models were full models (Models 2-4), with one main (explanatory) variable added to each. Next, using four separate models, two base (Models 1 and 2) and two full (Models 3 and 4) models, we tested the second set of hypotheses ($H_{2a}$ and $H_{2b}$). The base models (1 and 2) included the previous control variables plus niche strategy and partnership strategy, respectively. The interaction terms of the full models were added to the base models. We standardized the main effects before computing their interaction. Finally, three models, including two base models (Models 1 and 2) and one full model (Model 3), were used to test the last hypothesis ($H_3$). The two base models are the same as those in Panel 2. The full model included both niche strategy and partnership strategy, together with all of the control variables. We used different models to locate changes in the explanatory power from the base to the full models.

6 Results

This section will be provided upon request.

7 Discussion and conclusion

The results from this study confirmed some of our hypotheses. We found that in emerging economies like China, STEs with a niche and/or partnership strategy performed better than those that used neither. Moreover, STEs that adopted both strategies simultaneously were found to perform significantly better than those that adopted either one of the two. Contrary to our prediction, the performance differentials were not significant between those that adopted a niche and those that adopted a partnership strategy. In addition, both internal conditions (e.g., how much a firm invested in R&D) and external environment (industry and region in which a firm operated) were found to affect firm performance to a certain extent. R&D was highly significant, indicating that increased R&D and continuing innovation are the keys to developing and maintaining the competitiveness and above-average performance of STEs.

The findings contribute to the existing literature by demonstrating that a niche strategy does not replicate a partnership strategy; rather, the two strategies complement each other. That statement holds at least for STEs that operate in structurally changing and volatile environments. We reason from the findings that because STEs in emerging economies suffer severe resource shortages, a single strategy is not sufficient to overcome these limitations. We also reason that both strategies may cancel out each other’s defects. Specifically, a partnership strategy may help STEs to enter other market segments if they are overwhelmed in their current segments, while a niche strategy deters partner opportunism because opportunistic behavior can easily be detected in a small market segment.

Other than their main function of relaxing resource constraints, these strategies may provide additional benefits. A partnership, for example, increases specialization, as different partners focus on different parts of a value chain, and the division of labor enhances each partner’s efficiency. A niche strategy does not provide such benefits, but it does reduce the possibility of head-on competition with large firms, which partnerships do not. All of these benefits may co-exist. Hence, STEs in emerging economies should adopt both strategies simultaneously to maximize their performance.

References


