

Article

Internal Fission Strategies in Corporate Entrepreneurship: A Case Study in China

Wu Zhao ^{1,*} , Wei Liu ¹ and Yun Chen ²

¹ School of Economics and Management, Xidian University, Xi'an 710071, China; weiliu_1@stu.xidian.edu.cn

² Salford Business School, University of Salford, Salford M5 4WT, UK; y.chen@salford.ac.uk

* Correspondence: zhsxwu@xidian.edu.cn

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Abstract: Although the research of corporate entrepreneurship has continued to advance, few studies investigate corporate entrepreneurial activities within existing organizations in emerging market firms based on a case study approach. Building on a case study of PHNIX, a Chinese manufacturing firm, we draw on the literature on corporate entrepreneurship to develop a framework for understanding the occurrence, development and management of corporate entrepreneurial activities in organizational settings, and present a typology of some of the strategies that can be used in the process of corporate entrepreneurship. The findings considered the elements of entrepreneurial insight, pro-entrepreneurial organizational antecedents, knowledge sharing activities and internal incubation represent the core work in the fission process of corporate entrepreneurship. As such, we conclude with a discussion of theoretical and practical implications for further understanding the essence of corporate entrepreneurship in a complex organizational context. In addition, managers seeking to corporate entrepreneurship could benefit from the findings enabling them to understand and even adopt some of the principles and fission strategies used by PHNIX.

Keywords: corporate entrepreneurship; fission strategies; case study

1. Introduction

Today's external environment is characterized by dynamic, turbulent and constantly changing, which brings challenges, opportunities and threats to enterprises [1,2]. In this case, enterprises have no other choice but to continue corporate entrepreneurship (CE), albeit considered challenging and dangerous [3]. Scholars also argue that entrepreneurs can improve their competitive advantages [4,5]. CE offers a mechanism for a variety of organizations to deal with the dynamically changing environment through the constant exploration, exploitation of opportunities [6–8], and internal adaption where organizational knowledge can be transformed into new products, services, systems and processes [9–11]. Meanwhile, CE allows an incumbent firm to achieve innovation, venturing and other organizational goals by making full utilization of its resources [12–14].

In the context of developed economies, much of the research has been carried out to study the practice of CE [15–21]. The past decades have witnessed a large improvement, both theoretically and empirically, in the research of firm-level entrepreneurial constructs in the Western and developed economies [22]. Nevertheless, by far, much less is known about the increasing role CE plays in emerging markets or transition economies, as contrasted with the related entrepreneurship studies in terms of the individual level [23]. Emerging economies have tremendous potential for increasing market orientation and expanding economic foundation, and many of the emerging economies have been successful and are rapidly becoming the world's major economic force [24–26]. The findings by studying entrepreneurship in emerging economies, can be generalized to other countries and institutions. The process of entrepreneurship in developed countries is relatively slow, especially since

the economic crisis of 2008. Compared with developing countries, the process of entrepreneurship is relatively fast, relatively short, and has a vigorous upward trend.

Several studies have explored CE in transition economies, such as the determinants and performance implications for CE [25], the effects of CE on international venturing [27], CE as resource capital configuration [23], how CE enables innovation [28], a management focus with people involved in CE [26]. More importantly, although the inherent value of CE conducted by established organizations has been demonstrated in emerging economies, there is greater need to understand the key elements to foster CE, and the process of how and why CE pervades in organizational settings. Therefore, the primary purpose of this study is to fill this gap in the context of Chinese entrepreneurial firms.

We contribute to the CE literature in several ways. First, we take a dynamic perspective, allowing for the identification and integration of key elements in the process of CE, in the specific case of a Chinese firm. By incorporating broad forces in the related literature, we aim to enhance the knowledge of the complex nature of CE in such a less developed world. Second, we systematically examine the organizational environment of our case study firm to recognize what is essential in the development process of CE, to make implications on researchers, practitioners and policy makers on how CE can be nurtured and best enacted, particularly in the context of Chinese economy. Third, reviewing previous literatures, most of them are theoretical elaboration on enterprise entrepreneurship, and relatively few case studies are combined. Therefore, our study starts from cases to analyse enterprise entrepreneurship process, which makes up for the deficiencies of existing studies.

Our paper proceeds as follows: First, we frame our study in the existing literature related to CE, with a specific focus on the nurture and process of CE, to present our theoretical background, and consider how our study complements previous scholarly work. Second, we discuss the literature review. Third, we explain the methodology adopted in our study. Fourth, we draw attention to research findings by way of a case study of PHNIX. Fifth, we discuss the framework proposed. Finally, the theoretical and practical significance of this research are discussed emphatically.

2. Literature Review

Corporate entrepreneurship (CE) has been initiated by established organizations of various purposes, including those of strategic renewal [29,30], profitability [31], innovativeness [26,28], international success [32], developing competitive advantages [10,33], extending the scope of operations into new domains [19], enhancing organizational performance [34], achieving organizational transformation [10]. Whatever the reason a firm determines to engage in CE activities, it has been an important strategy in all types of organizations [35].

The concept of CE has evolved over time [3,8,29,36,37]. The early research simply regarded CE as a process of organizational renewal [38–40]. In the 1990's, researchers suggested that CE embodies entrepreneurial behaviours which require organizational sanctions and commitments of resources for the sake of developing value-creating innovations [41–43], and believed it as a way to improve an organization's ability to develop skills by which innovations could be created [44]. Zahra [45] observed that "CE may be formal or informal activities aimed at creating new businesses in established companies through product and process innovations and market developments. These activities may take place at the corporate, division (business), functional, or project levels, with the unifying objective of improving a company's competitive position and financial performance." Sharma and Chrisman [46] conceptualized CE as a process whereby individuals associated with an established organization create a new venture or instigate innovation or renewal within that existing organization. The ongoing studies in the 2000s linked CE with the firm's strategy aiming at establishing competitive advantages, which served as the foundation for sustainable growth [9,47]. CE is considered to be able to bring sustainable competitive advantages to enterprises. Intrapreneurship refers to the practice of developing new enterprises within an existing organizations, aiming at developing new opportunities and creating economic value [48]. In contrast, although CE is the behavior of developing new enterprises within existing organizations, new enterprises are eventually separated from existing organizations. At the

same time, new enterprises and existing organizations are related in many aspects, such as performance. It is an important process, especially in identifying, capturing and evaluating opportunities and assessing future strategic steps [6,8]. More recent research efforts have focused on the elements that are essential to clarify the domains of CE, and the refinements of this theme, in order to achieve a theoretically grounded understanding of the concept of CE [18,49]. Chebbi et al [3] integrated stakeholder theory and Kotter's [50] change model, and proposed that focusing on internal marketing Strategy in organizational change is more conducive to enterprise entrepreneurship. Much of the aforementioned literature has concentrated on the internal aspects of CE that happened within the organizational boundaries. Consistent with such internally-based view, we focus on the internal environment and process of CE, while recognizing the non-negligible effect external environment generated on CE.

The factors driving CE activities including supportive resources for innovativeness and high levels of worker discretion [14,22] may not lead to superior level of performance in an organization if people involved in CE cannot understand the crucial linkages needed for process of identifying the opportunity to realize the opportunity [8,51], and learning from the whole process [18]. Hornsby, Kuratko, and Zahra [52] and Hornsby, Kuratko, Holt, and Wales [22], believed that the implementation of enterprise entrepreneurship depends on top management these five factors include support, work discretion, reward system, time availability, and organizational boundaries. Some scholars believe that the implementation of corporate entrepreneurship requires specific organizational practices such as decentralization of authority, participation in decision-making, cooperation, avoiding bureaucracy, and encouraging risk-taking and creativity [3,53,54]. Concerning such management focus in the process of CE, researchers have investigated the issues of the CEO's transformational leadership [26]; the role of middle managers [55]; the motivation of corporate entrepreneurs [56]. Much has recognized the importance of unleashing the entrepreneurial potential by removing constraints on entrepreneurial behaviours [35].

The literature has developed several integrative models for the process of CE. Burgelman [57] and Floyd and Lane [58] models describe how risk-taking and renewal processes manifest themselves in the organization, with particular attention to the roles and behaviours of managers at all levels in entrepreneurship. Ireland et al. [10] integrated a variety of perspectives and made a relatively comprehensive review of prior models which contain the process of CE, including the work of Burgelman [57], Guth and Ginsberg [29], Covin and Slevin [59], Hornsby et al. [60], Lumpkin and Dess [61], Floyd and Lane [58], Dess et al. [9], Kuratko et al. [62], Kuratko et al. [63] etc. Based on that, they employed a model that synthesizes three key elements of entrepreneurial strategic vision, pro-entrepreneurship organizational architecture, and entrepreneurial processes and behaviour. Another work of Morris et al. [18] argued that CE process encompasses all firm-level initiatives associated with CE which allow firms to recognize and exploit opportunities. Turner and Pennington [64] constructed the MOA model, aiming to research, develop, implement and evaluate the CE process. Through empirical studies, they found that the knowledge sharing level of the entire organizational network was positively correlated with the organizational learning level in the context of enterprise entrepreneurship. Provasnek et al. [65] clarified the basic elements of a sustainable entrepreneurial process and helped advance the strategy for implementing a sustainable entrepreneurial process.

The focus on the integrated view of CE mentioned earlier has led researchers in recent years to investigate the process of CE with more complicated perspectives based on nonlinear assumptions. Inspired by the arguments with Ireland et al. [10], the most recent work Bloodgood et al. [8] proposed a system dynamics framework based on the opportunity, a central element in the process of CE [7], to illustrate how entrepreneurship occurs within established organizations. In their comprehensive model of CE, four critical activities of opportunity recognition, assessment, legitimation, and implementation are incorporated to introduce the complexity present in CE activities, and feedback loops are adopted to display the connection to strategic assessment and entrepreneurial renewal that portray CE as an integration of strategic and entrepreneurial goals. Similarly, Crawford and Kreiser [11]

presented a board, overarching theory through the lens of complexity science, to understand the relationships among the antecedents, elements, and consequences of CE strategy, and to investigate the complex nature of CE process.

While there is an increasing expansion in CE research, the theoretical foundation and empirical implications about the domain of CE and how CE can be best enacted and developed are still key issues that is worthy to explore. In the following section of this paper, we seek to extend the current knowledge about CE and investigate how CE can be developed and managed in the lens of a case study.

3. Research Methodology

3.1. The Case Study Approach

The aim of this paper was to understand how CE occurs in an existing organization. As little of the CE literature has centred on the CE process in China, this study employs an in-depth case study of a single organization to explore it. This method was selected for the following reasons. First, using this protocol facilitates helps to examine the complex process of CE in the organizational fabric, which requires data collection from sufficient sources of evidence. Yin [66] suggests that a case study approach is especially useful if contextual conditions may be ‘highly pertinent to your phenomenon of study’. Second, it is commonly argued that case study was an appropriate approach in investigating phenomena under the real-life situations, particularly when the boundary between phenomena and context is not perspicuously evident [66]. Specifically, the use of case study method was effective for the study of CE since it offers in-depth all aspects of the contextual information on CE initiated in organizational settings [67]. The choice of the single instead of multiple case studies was based on the corroborative suggestions of precedent literature stating that a single case is the optimal approach of case study research, and is corresponded with a number of influential studies in the entrepreneurial domain in general [68].

3.2. The Case Study Firm

The case study company, PHNIX, is a global leading heat pump manufacturer headquartered in Guangzhou, China. It is renowned around the industry for its quality swimming pool heat pump and high-temperature heat pump technologies. In 2002, Yi Zong and Li Zhang co-founded PHNIX, a start-up focusing on the production and sales of air-source heat-pumps. With their swimming pool heat-pumps popular in the European market, PHNIX developed rapidly and was in a leading position at that time. However, only after two years of the establishment of PHNIX, a sales executive who took charge of 80% of PHNIX’s total sales resigned. This put the top management team in PHNIX into a state of panic, worrying that some big customers would be taken away by him. Although the leave of that sales executive did not influence the overall sales due to the superior performance of PHNIX’s products, the co-founders of PHNIX began to think about what measures to take to avoid the recurrence of brain drain.

The leave of key employees triggered the CE activity in PHNIX. In 2006, an incumbent-backed spin-off named XINLEI registered and then ran independently, with the GM (general manager) formerly being a production executive in PHNIX and the controlling shareholder being Yi Zong and Li Zhang. Up until 2017, a total of seven spin-offs had been established and operated in healthy conditions. Via continuous CE, PHNIX overcame problems of employee motivation and the lack of motivity for technological innovation.

Two characteristics made the firm appealing under both theoretical and practical considerations. Theoretically, the firm successfully achieved transformational change by conducting continuous CE, which allows authors of this paper to conduct a holistic examination of the cross-functional process of CE in the organizational context. Practically, the benchmark of its CE process and key intrinsic elements driving its CE success is of enlightening significance, and make it a typifier in exemplifying the implementation of CE.

3.3. Data Collection

The data collection period is from 2016 to 2018, which is relatively long and mainly consisted of three phases, namely draft, framing and implementation phases. The semi-structured interview approach was adopted to collect the first-hand data, with key documents being collected, especially the book “Fissive Entrepreneurship” written by PHNIX’s founder Yi Zong, and websites being reviewed as the second-hand data.

The first phase of the data collection period lasted two months, with both the researchers and research being under the drift mood. Pre-interview emails and preliminary meetings functioned as a means to introduce the investigation and investigators into the situation, to ensure confidentiality and to reduce cognitive dissonance. Data collection at this phase was largely based on informal discussions with staff members, observations in the premises of the firm, as well as the review of archival data and organizational materials in order to fully understand the organizational context, people involved and relevant jargon to the CE practice in the case study firm.

The second phase of data collection involved detailed interviews with key informants and lasted six months. Discussions took place with the CEO, managerial directors, marketing managers, majority shareholders, team leaders and members, and each interview approximately lasted two hours. A total of 41 in-depth interviews were implemented with organizational members to strive to allow different perspectives or voices to emerge and explore the various understandings of individual participants. The identification of interviewees was based upon the snowballing technique served as the criterion of the involvement of interviewees and followed suggestions by Plakoyiannaki et al. [69] for the purpose of promoting the accuracy and validity of retrospective reports. Approximately 45% of informants were interviewed in English, under the condition when the selected interviewees had the capacity and willingness to communicate in English. The remaining interviews were conducted and the translation was performed by two experienced research assistants, with the quality of translations checked by professional translators. Thus, the choices of interview language did not affect the data collection process for respondents. All responses were recorded and transcribed. In an attempt to minimize interview effects, authors participated in the process of interview in order to protect against researcher bias. The researchers also observed actual behaviours of staff during numerous formal and informal visits to PHNIX.

Interviews in this phase were sought to investigate interviewees’ response for CE initiatives and activities. Interview informants were invited to clarify the following: (1) their roles in the CE process, (2) whether the entrepreneurial opportunity could be feasibly shared and coordinated in the organizational context, (3) whether engaging in CE activities could fulfil their personal or organizational desire, and (4) reward systems, empowerment policies as well as development and promotion procedures during the entrepreneurial process.

Followed the second phase, the third phase involved summarizing and merging the primary data, which lasted two months. We carried out follow-up interviews with specific interviewees to obtain updates to particular topics, gain additional information and refine the authors’ understanding developed at the preceding phase. In addition to interview transcripts, book and archival data were collected, which covered internal reports, transcribed texts, company documentation and reflective statements. The archival sources provided authors with supplementary information and documentary evidence, which contributed to verifying and clarifying points made by respondents.

3.4. Data Analysis

The comprehensive data collection led to a retrievable database including over 410 pages of verbatim interview transcripts, 180 pages of field notes, 1600 pages of archival data and other information. The data analysis process started from the coding of the primary and secondary data into theoretically framed categories concentrating on the nature of CE, the perceptions of interviewees on the rationale for CE, the approaches adopted, the level of CE implemented, the performance of CE, etc. Then, categories, relationships, linkages and subdividing categories were developed with

the guide of Dalpiaz et al. [70]. The procedure of coding, categorizing and systematizing into themes (secondary codes) was iterative and based on the ‘constant comparison’ approach, also akin to the rules in grounded theory. This means that as the new data emerged and research proceeded, they had been constantly compared with prior data and theory in terms of categories/concepts.

Since the causal loop diagram (CDL) provide a language for articulating our understanding of the dynamic, interconnected nature, so we use the basic the CLD as a subsequent discussion of causality in the CE process. We developed the CLD by describing particular relationships between variables then integrated these unified charts into a set of feedback processes to explain the observed CE process. In this process, we often returned to the data to check for and resolve any contradictions. To ensure the quality of our findings, we followed a number of practices suggested in the literature so as to improve the reliability and validity of this research, such as theories to structure the interview topics list, data triangulation to compare data from multiple informants, between-method triangulation to explore the case in different methods.

This paper may be subject to a limitation of generalizability in association with the single case. However, the intention of this research was to embrace all the complexity and richness of a real corporate entrepreneurial setting to fully investigate its practice. In this sense, it is anticipated that the depth, insights and contextual details this study provides will offer useful references regarding corporate entrepreneurship and enable readers to evaluate our results to other similar situations.

4. Research Findings

4.1. Entrepreneurial Insight

In 2002, Yi Zong and Li Zhang co-founded PHNIX. This is a company specializing in the production and sales of air source heat pumps. Later, the swimming pool heat pump business has been in the leading position in Europe. However, just two years after they started their business, they had a significant problem. A sales executive suddenly quit his job and wanted to be a self-supporting portal owner, and 80% of Finniz’s sales business was in his hands. If the large customer is taken away by the executive, the consequences can be imagined. Fortunately, without danger, PHNIX’s product advantages are obvious, the departure of the executive did not affect the company’s overall sales. Until the next year, Yi Zong found in his business contacts that production of the heat exchanger, a key component of PHNIX’s product heat-pump, had a very high gross interest rate on this component. That was the first entrepreneurial insight. Later, entrepreneurial insight focused on expanding the market and industrial chain extension.

4.2. Top Management Support

Researchers have pointed out that supports from top management or a CEO’s transformational leadership is one of the most important factors influencing CE [26]. The co-founders of PHNIX, Yi Zong and Li Zhang, not only had the willingness to promote intrapreneurial behaviours, but also lead subordinates to take on entrepreneurial actions in many forms, including the championing of innovative insights, stimulating creativity of employees, supporting experimental projects, and providing essential resources.

Yi Zong, the CEO of PHNIX, elaborated his thinking in this way:

For SMEs, whether to promote CE is largely dependent on the owner’s attitude. Basically, every organization could achieve transformational change through CE as long as the owner is willing to support such actions. Impressed by the leave of our sales managers, I realized that I could not keep a person who has venture ideas. So before it is too late to retain the best talents, why not provide resources and let them be intrapreneurs?

The statement “what we do is a new approach of seeking mutual benefits” elaborates Yi Zong’s original intention of promoting CE, which is also deeply rooted into his leadership in the CE process.

Several interviewees especially the team leaders of venturing programs reported that supports from the top management increased their intrinsic motivation to exploit their potential for innovation and propensity for business venturing. This is exemplified by an employee in the following quotation:

“Top management team in PHINX is enthusiastic about technological and product innovations, and always trying to transform the dynamic business environment with which it faced into a vision of opportunity. Particularly when I witnessed the huge success of the first venture program, I decide to be an entrepreneur and participate in new business venturing.”

4.3. Pre-Entrepreneurial Organizational Antecedents

With the support of top management, PHINX must implement a championing to convince employees that it is in the best interests of the enterprise and themselves to involve CE. ‘XINLEI’, the first venture program in 2005, was deemed by Yi Zong to be a sufficient opportunity to legitimate and worth moving forward by calculating and evaluating its gross profit. The program was focusing on the production of the heat exchanger, a key component of PHINX’s product heat-pump, which means it is in the upstream of the industrial chain where PHINX belongs to. After evaluation of this opportunity which was not only contributed to the strategic goal of PHINX in expanding the value chain, but also triggered the CE activities in the organization, Yi Zong paid extra attention to identifying and motivating the right person to finish the championing efforts. Finally, the production manager who had expressed its entrepreneurial idea informally, together with three other managers invested this venture program and established a new firm, with Yi Zong and Li Zhang as the major shareholders. XINLEI turned out to be a successful venture program, yielding 100% returns in 2006.

The championing started from XINLEI directly affected the implementation of the follow-up opportunities by increasing the motivation and confidence of organizational members to act.

4.4. Venturing Teams

Affected by the economic recession in European countries, PHINX suffered a decline in its heat-pump sales, which made PHINX turn to the Chinese domestic market and modify its strategy in late 2009. Based on the continuous innovation of PHINX’s product, prior knowledge and organizational evaluation, Yi Zong again recognized an entrepreneurial opportunity to be potentially triumphant. However, different from the leader of the XINLEI program who was eligible and then appointed by top management, Yi Zong this time could not directly find the right person at the right time to implement this opportunity. Meanwhile, it is high time that the organization establish a routine of identifying the right person or team to take on specific CE activities. In this case, we identified four phases in the development of entrepreneurial teams.

4.4.1. Phase 1. Team Formation and Training

All individuals in PHINX are entitled to team up to campaign the venturing program. Due to the championing of the former venturing programs and the professional evaluation of opportunities, individuals enthusiastically response. At the same time, the original leader of each team would ultimately be the GM of the new venture firm if the team wins. To be the team leader, however, one must promise to invest at least 10% of his/her own savings on the new venture. This rule is to automatically screen out those who do not have adventurous spirits, because the venturing program may be risky and an entrepreneur should be willing to take risks. With their business plans, team members would receive entrepreneurial training in terms of strategy formulation, marketing approach, financial evaluation, etc. A noteworthy feature in training processes is that participants take initiatives to learn instead of passively receiving knowledge. At the same time, team formation and training is also a process of knowledge sharing activities. Our data suggests that training could be particularly effective when team participants perceive themselves as entrepreneurs and, thus, are motivated to acquire desirable skills.

4.4.2. Phase 2. Team Assessment

In this phase, the review committee composed of management personnel knowledgeable in operational and financial matters would evaluate both the team members and their business plan. The committee would assess team members especially the team leader from seven dimensions, i.e., years of employment, current position, degree of recognition for PHNIX's vision, strategic thinking, innovative thinking, team building, and leadership. Apart from team assessment, the committee also evaluated their business plan for the new venture, particularly from the perspective of business model innovativeness. Those teams that gained the highest evaluating scores will go further to phase 3.

4.4.3. Phase 3. Voting with Investment Capital

After the selection of all the teams in the second phase, teams in this phase would compete to win the opportunity of operating the venturing program legitimately. External evaluators including venture capitalists and Internet marketing professionals were invited to make comments, however, they cannot vote but can voice their views. Assessment for teams surviving the last phase would attach great importance to the viability of the business plan, including free cash flow management, predicted profitability, risk management, etc. It was the team who gained maximum investment that won out and proceeded to form the venture firm. All organizational individuals were entitled to vote, only if they promise to invest capital to the venture program. The voting mechanism is illustrated by two employees who participated in the voting as follows:

“At first I think I am an outsider, but when I decide to support a team and participate the voting I find I am totally involved. The rule of voting is that everyone should vote with investment dollars. If I won't offer my investment capital when the team I vote wins, I will be fined 20% of my annual salary for not investing on the program”.

“When I assess the business proposal of each team before the voting phase, my evaluation was largely based on the attractiveness and innovativeness of their plans, but when I vote with capital, I need to trade-off between risks and returns. I think own interest is bound up with the future of the team, I myself behave like a shareholder rather than an evaluator. I have to think carefully before voting for the best team.”

In addition, through the implementation of the first three phases, top management has a good combing of talents, that is, in the minds of top management, it is clear which employee should be promoted and reused. Figure 1 briefly describes PHNIX's talent recognition process. It can be seen from the figure that 1 is the leader, but there is no follower because of his high positions and weights, indicating that the leadership ability of 1 is illusory, so the leadership ability of 1 should be re-examined; 2 is the initiative to be the leader of the competition, so no matter what the final result is, 2 should be promoted; and 3 is the talent that every team wants to have. It shows that he has outstanding skills and good interpersonal relationship, so 3 should be promoted.

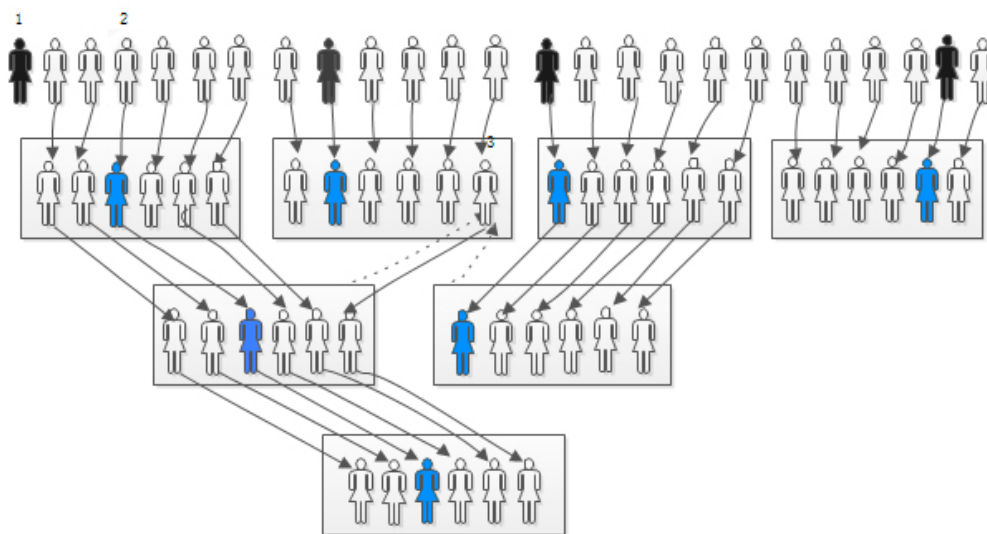


Figure 1. PHNIX's talent recognition process (note: Black represents the leader, blue represents the GM of the team, white represents the staff, and box represents a team).

4.4.4. Phase 4. Financing the Venturing Program

After selecting the best team to undertake its venturing, the financing question followed. For each venturing program, Yi Zong and Li Zhang insisted that they invest the same amount as that of the venturing team and other internal investors to ensure their major shareholder status. The way of financing for venturing programs is different from that for the normal project proposed by the firm, since the initial investment capital for venture programs is considered to be the optimal amount. An employee who voted for XINLEI program illustrated:

"For normal projects, the more the initial capital invested, the more easier the project finished. This is because such projects do not deal in my own money. However, when I make investment to the new venture firm, and if when the initial investment is 20 million while I only invested 20,000, undoubtedly I turned to be the minority shareholder. So everyone wants to use the least money to do the best things."

Yi Zong and Li Zhang are the final decision makers for the total amount of investment, after much estimation for the total amount needed. For those venture programs which deviated greatly from their expected amount of capital, they will make a viable solution through effective communication with the entrepreneurial team. For example, Li Zong stated "I remember a venturing program only needs 10 million initial capital according to my estimation, but unexpectedly employees themselves prepared to invest 9 million. In this case, I have to persuade them to invest only half of it." Another example is offered by Yi Zong, and he reflected in his interview that "One day the leader of an entrepreneurial team told me that his team only needs 5 million initial capital, which was far from my estimation. I understood that he wanted to achieve the purpose of equity compression initial capital, but this was helpless to the growth and success of the program. So I ultimately decide to double the initial investment capital."

4.5. Internal Incubation

PHNIX provides support to its spin-offs (i.e., new venture firms) through allowing access to its infrastructure and resources, and the firm maintains formal linkages with its spin-offs through equity or licensing agreements. Through the internal incubation mechanism, PHNIX as the incumbent firm allows access to its resources and provides essential support, and in the meanwhile spin-offs could inherit procedures and routines from the incumbent. Yi Zong, the CEO, described his remarks as follows:

“All venturing programs are supported by PHNIX through internal incubation. We usually decide to invest after the value of output is more than 10 or 20 million RMB. The purpose is to decrease the risk and uncertainty of independent start-ups. For employees who nearly bet on all their savings to undertake entrepreneurial activities, the costs of failure would be too high for them to bear. Also, authorized corporate entrepreneurs to free use the brand of PHNIX before they operate independently is undoubtedly helpful.”

As Bruneel et al. [71] have argued, knowledge transfer between the incumbent and spin-offs can significantly improve the spin-off's capability to assimilate new knowledge, discard irrelevant knowledge and assess the value of external knowledge. Thus, we believe that the “internal incubation” phase in PHNIX plays a crucial role in the whole CE process since it enhances the probability of surviving the market when spin-offs run independently.

4.6. Reward and Incentive Systems

Previous studies of CE have indicated that reward and incentive systems are key management practices that contributed to the emergence of CE [67]. This is particularly reflected in our case where reward practices were perceived by individuals as clear examples of supporting entrepreneurial initiatives, and where individuals were cognizant of how reward systems were linked to their entrepreneurial efforts. In our case we find that profit sharing is the most important simulator for the development of entrepreneurial efforts. PHNIX designed a profit sharing mechanism in which ensures the entrepreneurial team enjoys 40% of the profit after taxation while they only hold 25% of total shares. A GM of the spin-offs elaborates it in this way:

“There is a mandatory dividend policy for new venture firms. The after-tax profits were divided into three parts, i.e., 50% for dividends based on the percentage of ownership, 30% for retained earnings, and 20% for the reward to the entrepreneurial team. This means that I can request 1.6 times as much as the number of shares I owned. Such mechanism drive each member of the entrepreneurial team to achieve profitability, not only because of the dividend, but if we cannot create profit, we gain nothing.”

Since approximately all the venture firms spinning off from PHNIX can achieve considerable profits, the likelihood of receiving distributed profits as financial rewards have encouraged individuals to conduct further entrepreneurial behaviours, which in turn promote the entrepreneurial action in the firm-level as a whole. In addition, our case suggests that promotion was the also a commendable reward for the recognition of innovative initiatives and entrepreneurial behaviours. This is consistent with Castrogiovanni et al.'s [67] results, who found that promotion provided employees opportunities to increase their autonomy, extend their own field of action, and move closer to top managers with whom they would like to share their entrepreneurial and innovative ideas. As Yi Zong noted, employees who demonstrated high performance in the process of entrepreneurial team formation and voting are more likely to be promoted.

4.7. Corporate Governance of the Spin-Offs

4.7.1. Equity Structure of the New Spin-Offs

The equity structure of spin-offs are designed in such a way as to facilitate entrepreneurial actions while maintaining the control of Yi Zong and Li Zhang. For the new-established venture firms, three people constitute the board of directors, namely Yi Zong, Li Zhang, and the GM of the new firm, holding 25%, 25%, and 10%, respectively, and the major decisions would be made by a two-to-one margin. The equity structure of new ventures is not balanced, rather the premise behind the governance strategy is that Yi and Li are the major shareholder of all spin-offs. However, Yi Zong stated “Although I am the major shareholder, the dividend I received is less than the GM. This is to convince the GM that her or himself benefits most from the new venture firm.”

The core of the equity structure is that the entrepreneurial team contributes investment capital to the spin-off, accounting for at least 25% of total shares, and among which the GM as the leader of the team should contribute more than 10% of total shares. As Li Zhang illustrated, “The purpose is to ensure the risk sharing in entrepreneurial activities, for if the entrepreneurial team obtain shares without making contribution, i.e., sharing profits without sharing risks, the equity governance as stimulus measure will not be effective.” The equity arrangement helped to achieve the consistency of interests between entrepreneurial management team and shareholders, which is also considered by individuals in the spin-offs as the best way to align the interests of both parties.

4.7.2. Dividend Allocation Policy

As mentioned above, the dividend allocation policy is a key incentive mechanism during the CE process, which entitles the entrepreneurial team enough rights to share profits. First, 20% of the total profit after taxation would be allocated to the management team of the spin-off, normally 5–6 people, including GM, which is the priority dividend. Second, 30% of the total profit after taxation based on equity distribution would be used as enterprise development funds for investment in reproduction. Additionally, 50% of the profits after taxation would be distributed as dividends for all shareholders according to their ownership, so as to enable every one of them to obtain investment returns, and then have free capital to invest other venture programs. An interesting design of dividend policy is that the GM or the management team in the spin-off can receive more dividends than the major shareholder. This means that dividend allocation is not only based on the stock ownership, but focused more on the stimulation of the entrepreneurial management team and entrepreneurial behaviours. Table 1 provides statement of rights and interests of PHINX.

Table 1. Statement of rights and interests of PHINX.

Percentage of Invested Shares	20% Priority Dividend	30% Enterprise Development Funds	50% Share Dividends	Total Revenue Rights
10% of the shares of the GM	8%	3%	5%	16%
Fission backbone 15% shares	12%	4.5%	7.5%	24%
25% of the shares of other employees in the group	0%	7.5%	12.5%	20%
50% of the two original shareholders of the parent company (Yi Zong and Li Zhang)	0%	15%	25%	40%

4.7.3. Exit Mechanism

Another essential component of the corporate governance is its exit mechanism, which refers to the withdrawal policy of investment capital. Shareholders who leave PHINX or the new venture firms should withdraw its original capital without premium, due to the fact that they already received annual dividends, and the value-added parts would be compensated in the form of bank interests. Such the rule of share withdrawal can enable the management team that hold shares in the spin-off to concentrate on firm growth and profit generation.

4.7.4. New Venture Firm

After continuous trial and error and market test in the PHINX, the operation mode tends to be stable, and when it reaches a certain threshold, it can operate independently from PHINX. Normally, as long as the sales volume exceeds 20 million yuan, the business unit will become a new venture firm.

CE contributes to achieve market expansion and industrial chain extension. Through internal corporate ventures, new businesses are created and reside in the current corporate structure. Notably, these new business or ventures usually develop and bring to the market new technologies which are

not part of but complemented with the core business of the current organization [71]. This enables the incumbent to explore new product-market combinations and fulfil fast integration of the value chain.

5. Discussions

Our findings have a number of implications for a deeper understanding of the process of CE. In this section we will set up a causal loop diagramming to summarize and discuss the overall process of CE derived from our case.

We have argued that the occurrence and development of CE involves key elements that cohere together, and we have presented the findings of a case study firm from China. Our findings are consistent with broader discussions about the importance of CE generally: “numerous real-world examples are available that demonstrate how a firm’s commitment to recurring CE can lead to enhanced organizational performance.” [72]. However, by focusing specifically on how CE occurs in a firm from an emerging market, we have opened up a new avenue to the deeper understanding of the CE process.

Based on the findings from the case study, we propose five feedback loops (four reinforced feedback loops and one balanced feedback loops) in Figure 2, which determine the CE process. In this section, we will discuss the causal loop diagramming in more detail.

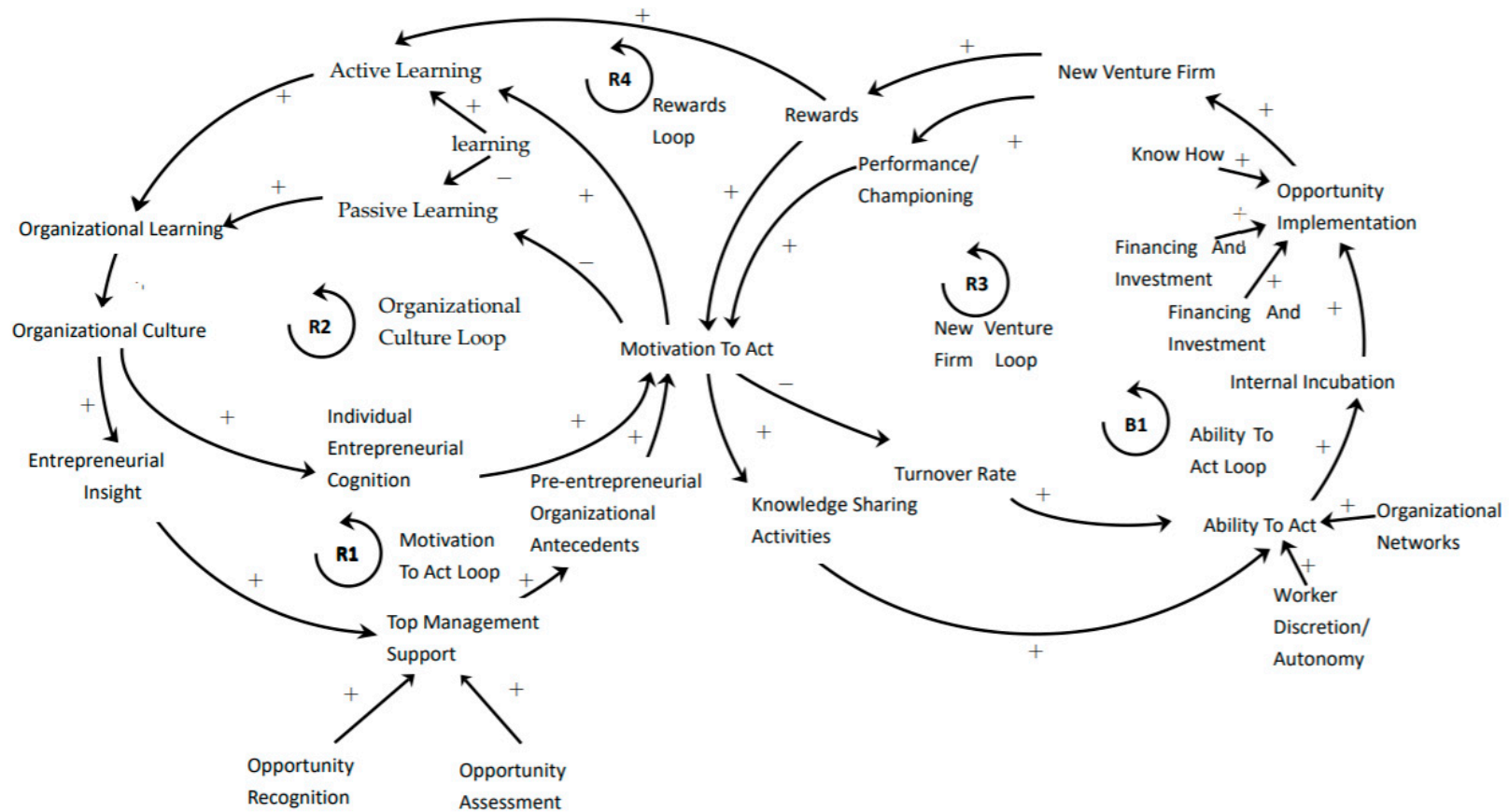


Figure 2. The process of CE based on causal loop diagramming.

5.1. Reinforcing Feedback Loop 1 (R1)

Reinforcing feedback loop 1 (R1) refers to the Motivation To Act Loop. The CE process begins with entrepreneurial insight which triggers CE activities in an organization. Opportunity has been defined as an undiscovered or created idea that can be profitable for the business [8]. With the support from top management, entrepreneurial insights can be transformed to pro-entrepreneurial antecedents [10], which is essential in promoting the motivation. In particular, opportunity recognition and opportunity assessment can better promote the top management support in our case. By offering pro-entrepreneurial organizational antecedents, which is reflected in our case of the champion efforts of the first successful establishment of a new venture firm named XINLEI, resource allocation, employee incentives etc., individuals or units are most likely to engage in entrepreneurial behaviour, laying the foundation for subsequent CE activities. Motivation to act is decisive to the emergence of entrepreneurial behaviours. In our case, in particular, XINLEI received 100% of the return, which stimulated employees' action, and employees changed from passive learning to active learning. Learning among employees positively affects organizational learning. Organizational learning is also conducive to the formation of a good organizational culture. Organizational culture can guide employees to know what to do and what not to do, thus preventing possible internal conflicts, and can also affect employees' attitudes and behaviour [73,74]. The cultivation of entrepreneurial spirit within the organization enables employees to take risks, stimulate creativity, innovation and creativity, and enable employees to discover and explore entrepreneurial opportunities, which is conducive to expanding entrepreneurial insight.

5.2. Reinforcing Feedback Loop 2 (R2)

Motivation to act also stimulates one reinforcing Feedback 2 (B2)—Organizational Culture Loop. The values, beliefs and hidden assumptions shared by organizational members constitute of organizational culture [75]. These values, beliefs and assumptions affect the behaviour that is crucial to the process of organizational learning [76,77], either to promote organizational learning, while organizational learning is also positively affects organizational culture. In addition, organizational culture also has a certain impact on individual enterprise cognition. For example, entrepreneurial behaviour, such as their risk-taking tendency and innovative behaviour, is greatly affected by corporate culture [78]. Chebbi et al. [3] also believed that organizational culture plays a fundamental role in entrepreneurial cognition and shaping individual entrepreneurial cognition of value orientation. Individual entrepreneurial cognition can also influence employees' behaviours. These behaviours, especially the motivation to act, can form a good organizational culture within the enterprise.

5.3. Reinforcing Feedback Loop 3 (R3)

Balancing Feedback 3 (R3) refers to New Venture Firm Loop. Motivation to act is decisive to the emergence of entrepreneurial behaviours. The tendency or willingness to engage in CE behaviours is the result of the interaction between an individual's entrepreneurial cognitions (i.e., beliefs, attitudes and values), rewards, and performance outcomes from the new venture firm. The organization's overall degree of motivation to act directly leads to knowledge sharing activities and whether action takes place. Knowledge sharing activities work to pilot and propagate innovation by means of the exchange of information throughout the organization [18,52]. Such activities in our case are featured by a series of efforts in establishing a mechanism to ensure organizational members equip themselves to be entrepreneurs, such as the voluntarily venture team formation and training, and the right of every organizational member to vote with investment capital to select the best team.

Note that we include know-how, corporate governance and financing and investment as exogenous variables, because PHNIX and venturing team regarded them as the policy decision variables. Once a venturing program or opportunity has advanced beyond the internal incubation steps, it is deemed sufficient to be ultimately acted upon as a new venture firm through opportunity implementation influenced by know-how, corporate governance and financing and investment. Know how means

that the new company knows what to do and how to do it, in our case, because the committee also evaluate their business plan for the new venture, so the new team has a clear idea of what to do and how to do it. Corporate governance is the system under command and control of the company [79]. In our case, equity structure of the new spin-offs, dividend allocation policy and exit mechanism can motivate motive individuals to participate in the CE process. Additionally, a successful innovation implementation demands significant amounts of resources. Financing and investment of Yi Zong, Li Zhang, and the GM of the new firm effectively solve the problem of capital, but also solve the problem of lack of innovation motivation when the enterprise develops to a certain extent, especially investment of employees of the new firm fully encourages employees' work motivation.

New venture firms improve performance through market expansion and industrial chain extension, and our case is no exception. Therefore, when a new venture capital company is established as a new and different industry sector by the parent company, the venture company of the company will diversify the product market of the parent company [20]. In addition, by separating new venture firm from the parent company, the new venture firm department can be more flexible and locally adaptable to improve performance. At the same time, the new venture firm adopts a more suitable path for its development [20], which leads to more creative breakthroughs, to increase performance. At the same time, when a new venture firm succeeds, employees receive monetary rewards, such as bonuses, and non-monetary rewards, such as recognition and championing. For example, in the case we studied, the GM of the new firm owns 10% of the shares, and the GM of the new firm can get 16% of the profits if the new venture firm is successful. Rewards, together with the performance outcomes, especially championing from new venture firms, can directly motivate organizational members to act.

5.4. *Balancing Feedback (B1)*

Balancing Feedback Loop 1 (B1) refers to the Ability To Act Loop. Motivation to act addresses the cognitions of individuals in the organizational context, ability to act concerns the skill, talent or proficiency related to actions. In our case, XINLEI's success has played a leading role in the follow-up CE, thus stimulating the action of employees, reducing the turnover rate of employees, and more capable employees are willing to continue to contribute to the CE. In particular, worker discretion or autonomy [63] and organizational networks [64] promote the individual's ability to engage in CE activities. Successful innovation is inseparable from freedom, because freedom promotes innovation [20]. Work discretion (WD) means that employees have the freedom to decide their own work-related activities, so as to realize effective knowledge sharing and participate in innovation strategies. When limited by resources, time and other organizational factors, innovative enterprises can promote the ability of individuals and units to engage in knowledge sharing through organizational network [18,64]. Internal incubation can resolve some problems of uncertainty and make entrepreneurial opportunities more sufficient and legitimate, which are more likely to lead to success than venture programs that have not. Amabile et al. [80] points out that organizational systems must reward and recognize creative work and achievement in order to facilitate further innovation. In our CDL, the main factor that directly affects the reward evaluation process is whether a new venture firm is established, and rewards can motivate employees to take action.

5.5. *Reinforcing Feedback Loop 4 (R4)*

Another reinforcing feedback loop that is strongly related to R3 is R4—the Reward Loop. The reward system has a strong impact on entrepreneurial behaviour [10,52]. Spurred by generous rewards, employees' learning has gone beyond traditional passive learning, but to active learning, promoting inter-organizational learning and facilitating entrepreneurship. There is a sharp distinction between active learning and passive learning. Thus, a feedback loop occurs and this loop further contributes to organizational learning, a concept referred by Argyris and Schön [81] as "an organization's acquisition of understandings, know-how, techniques, and practices of any kind and by whatever means." The intuiting, interpreting, integrating and institutionalizing embodied

in organizational learning [82] further shapes the organizational culture, which will continuously update the entrepreneurial insight, and influence individual entrepreneurial cognitions. The updated entrepreneurial insight then, again, triggers the subsequent CE activities, for example top management support, knowledge sharing activities and so on, and thereby a virtuous circle comes into being.

6. Conclusions

6.1. Theoretical Implications

From a management perspective, our research has taken an important step towards unlocking the black box of the entrepreneurial process. Although entrepreneurship and innovation are highly praised as the most feasible strategy for enterprises to achieve success, the fact remains that, for most enterprises, the successful implementation of enterprise innovation is quite elusive [51]. Hence, utilizing the theoretical linkages and antecedents suggested in previous literature, we have conducted a case study and proposed a framework that identifies what is necessary for CE to occur and analysed how corporate entrepreneurial activities emerge in the emerging market context.

The study also offers a new perspective in studying CE by highlighting the special role of CE in facilitating organizations to continuously renew competences to be congruent with the changing institutional environment. The framework we proposed implies that the fit between different elements is a prerequisite to successful CE. The elements of entrepreneurial insight, pro-entrepreneurial organizational antecedents, knowledge sharing activities and internal incubation represent the core work in the process of CE. Meanwhile, breakdowns in any of the framework's specific relationships would result in the reduction of the possibility of CE enactment.

The problem of lacking motivity for innovation when companies, especially entrepreneurial firms, develop to a certain degree has to be solved. As what Kuratko et al. [51] implied, while entrepreneurship and innovation has been widely recognized as a viable strategy for corporations to be successful, the fact remains that the continuous implementation of innovation is still elusive for most firms. In our case, effective reward and incentive have the potential to motivate employee to embrace and support the entrepreneurship, to enable the employee to actively learn and overcome any resistance and to facilitate the corporate entrepreneurship.

The success of the new venture firm largely depends on the enterprise to choose the right person to entrepreneurship. However, talent identification has always been a difficulty in the entrepreneurial process. In our case, the venture capital team was voted on by investment capital. On the one hand, the use of capital to invest in elections is a departure from the traditional mercenary, cronyism and meaningless elections. On the other hand, through the election, top managers can identify talent more effectively. From the perspective of management, the problem of the talent identification is effectively solved.

6.2. Practical Implications

PHNIX's management embarked on a CE process aimed at retaining excellent employees, however, eventually PHNIX not only avoided talent drains but also brought organization members' initiative into full play. In the end, the company successfully expanded the market and extended the industrial chain to realize CE. PHNIX's entrepreneurship story shows that lasting entrepreneurship is not a legendary field, but a reality.

To run CE, it must run deep within the organization. CE contains both formal and informal activities which embody entrepreneurial actions that require resource commitments and organizational sanctions. Although top-level managers in our case shoulder much responsibility in recognizing and assessing entrepreneurial opportunities, and play an essential role in connecting entrepreneurial insight with pro-entrepreneurial antecedents, they cannot dictate the whole process. Without sustained and strong commitment from the middle and lower ranks of an organization, and initiatives from all employees, entrepreneurial behaviours will never be a defining characteristic of an organization.

Our study suggests is the need to motivate potential corporate entrepreneurs to engage in CE activities. The success of CE is more probable when organizational individuals have high motivations to act. Pro-entrepreneurial organizational design, championing efforts, as well as the reward system all contributes to motivation, the bedrock of CE processes and behaviours. A beneficial suggestion our case provided in this sense is to develop such as mechanism that enables individuals to fully play their initiatives, such as forming a team to campaign the entrepreneurial opportunity, and voting for or investing in the best venturing team and program.

According to the study's findings, Pro-entrepreneurial organizational yield 100% return, which promotes employees to take initiatives to learn instead of passively receiving knowledge. This subsequently enabled the organization to expand the existing knowledge base and encourage new knowledge creation activities that affect the success of entrepreneurship. At the same time, the organization should change the organizational culture one that fosters a strong entrepreneurial spirit and the common goal of the corporate. To this end, unite employees towards CE.

There is no doubt that this study has produced some theoretical and practical findings. Managers seeking CE could benefit from the findings enabling them to understand and even adopt some of the principles and mechanisms used by PHNIX, for example, reward and incentive systems, equity structure of the new spin-offs, voting with investment capital, etc.

6.3. Limitations and Future Research

Although we believe the findings in this study is of general applicability, we do not claim that the CE processes identified can be applied in all cases. At the same time, while our study provides potential insights into the typical process of CE happened in China, more work needs to be done in this domain. On the one hand, while our case is revealing, as aforementioned, this is only a single case and thus additional investigation into the mechanism and the role of different participants during the CE process will undoubtedly reveal more complex effects. On the other hand, although we have studied the "winning" firm, it is possible that different types of firms in other cases generate different champion routes which also contribute to the development of the firm. Additionally, taking the special situation and background of China into consideration, whether the result of findings in this study is applicable to firms under different systems of ownership, e.g., the state-owned companies, and why one CE process sticks while another loses out. Therefore, more theoretical and empirical work is needed in these directions.

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