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To cite this version:

Pierrick Bouffaron, Benoit Weil, Pascal Le Masson, Cédric Denis-Rémis. Re-inventing corporate innovation through incubation. The VINCI Leonard case study. R&D Management Conference 2019, Jun 2019, Paris, France. hal-02321451

HAL Id: hal-02321451

https://hal.science/hal-02321451v1

Submitted on 21 Oct 2019

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Re-inventing corporate innovation through incubation. The VINCI Leonard case study.

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Abstract

While incubation has long been found to foster innovativeness, corporate incubation offers new possibilities of interaction and cooperation among peers from within and outside the firm, as well as the firm-backed acceleration of new ventures. However, the surge in practical implementations contrasts with the restricted body of academic knowledge in the field. To close this gap, we examine whether and how the competitive setting of corporate incubation leads to both corporate endogenous and exogeneous innovativeness and growth. We explore the innovation capability management of a corporate incubator –Leonard- within VINCI, a global construction and concession company. We analyze a dataset collected during the incubation program spanning 18 months, tracing the evolution paths of 30 internal and external ventures through their incubation journey. A combination of qualitative and quantitative methods is used to analyze the corporate incubator role on the firm strategy and performance. Findings suggest that corporate incubators can act as flexible innovation vehicles serving the firm top management in complementary ways. We propose a multidimensional framework for assessing the incubator performance that reflects the benefits for a range of strategic, managerial and operational stakeholders. Four distinct performance dimensions emerge: the (1) financial, (2) market, (3) ecosystem, and (4) foundational dimensions, whose importance varies through time and according to the nature and characteristics of the incubated ventures. We discuss how these dimensions coexist during a corporate venture's selection, incubation and growth, and identify future research directions.

Keywords: corporate incubation, firm performance, innovation management

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1. Introduction

The contemporary issues of rapid technological advancement, and the market entrance of new, less conventional players, such as Airbnb, Tesla or Netflix, have thrown many industries into an era of intense change that incumbent players are struggling to match. In order to face those challenges, incumbent firms have adapted and reconsidered their innovation strategies and capabilities (Hitt et al., 2011, Ketchen et al., 2007). As firms grow, management's focus easily shifts toward exploiting existing competitive advantages rather than using opportunity exploration to build new advantages. However, no matter the motivation from the firm top management, the question of innovativeness is strongly linked to an organization's effectiveness and to its success in the long run. Yet, ironically, the conceptual understanding of innovation projects and ventures and their successes within a large corporation is still in its early days— designing innovation protocols, programs and capabilities has not been typically linked to competitive advantage and winning in the marketplace; and different people still perceive innovation in different ways (Chesbrough, 2002; Kanchan et al., 2013).

To become more innovative, large established firms have expanded the ways they actively engage with entrepreneurial ventures (Weiblen et al., 2015). A strategy of keeping abreast of potentially relevant technology and market trends involves setting up a corporate incubator and/or accelerator. These entities are different from their company headquarters both in terms of governance and in terms of purpose: ideation, innovation, and knowledge creation, often in conjunction with a network of external partners. Corporate venturing has been widely used by corporations to source new internal ventures through employee efforts (Burgelman, 1983; Miles et al., 2002; Bonzom et al., 2016) or by looking for innovative teams, concepts and new market shares outside through external corporate venturing (Chesbrough, 2003; Dushnitsky et al., 2006). The core purpose of corporate incubation programs is detecting and speeding up the emergence or growth of early-stage ventures. Corporate innovation literature has been quite divided on this notion and, as of the time of writing, there are still no accepted frameworks for assessing corporate incubation looking both at endogenous – that is, internal corporate venturing- and exogenous growth (Allen et al., 1990; Barbero et al., 2012; Relan, 2012). It comes as no surprise. Over the past decades a wide variety of incubation mechanisms have been introduced by policy makers, private investors, large firms, universities and research institutes. Most research works focus on private incubators as frameworks fueling exogenous growth, as short-term financial return has long been the priority driver (Aernoudt, 2004; Allen et al., 1990; Grimaldi et al., 2005; Becker et al., 2006). However, ventures going through a corporate incubator may be considered as powerful strategic weapons, initiated to create economic value and competitive advantage for the hosting firm (McGrath et al., 2000). Corporate-incubated ventures aim at developing new products or services, establishing new processes, or creating a new organization. Synergies between firm employees, business units, external partners and ventures are sought. Given that the underlying assumption of synergies is "more is better" (Piening et al., 2015, Lawson et al., 2001), understanding the antecedents and outcomes of the synergy effects is key for increasing the corporate incubator performance.

The paper is based on a study of thirty innovative ventures within the VINCI Group in the 2017–2018 period. We investigate the role of the firm strategic orientations through its corporate incubator, Leonard. In particular, what does corporate incubation performance really mean, and how can it best defined to serve corporate interests most appropriately? This article is based on the proposition that a corporate incubator is part of the strategic management in the firm it belongs to, hence reinventing the role of more traditional innovation departments (Benner et al, 2013; Moon, 2006; Song et al., 2016; Yalcinkaya et al., 2007). Incubation benefits are multi-faceted, and the goals of such an innovation framework must be set in advance to better help the firm meet its short-, medium- and long-term objectives. We propose a multi-dimensional framework for the assessment of corporate incubation performance, based on top-level and operational decisions of the studied incubation journeys.

The remainder of the paper is structured as follows. First, we provide the theoretical background and hypotheses development. Second, we introduce the methods and present the analysis results. Third, we discuss the findings leading to our conclusions and implications. Finally, limitations and future research directions are provided.

2. Theoretical background and research approach

2.1. From corporate innovation management to corporate incubation

This research draws from design, innovation as well as strategic management literature to reflect on the innovation capability of today's corporations (Cooper, 1990; Courtney et al., 1997; Le Masson et al., 2018; Le Glatin et al., 2017). The question of corporate innovation performance is strongly linked to an organization's effectiveness and to its success in the long run. Innovation management literature shows that incubators and accelerators may play key roles in identifying entrepreneurial opportunities and supporting early innovation activities (Albort-Morant et al., 2016; Patton, 2014). Research into incubator classification has been largely documented (Allen et al., 1990; Barbero et al., 2012), and their impact on large firms challenged (O'Connor et al., 2006; Hatchuel et al., 2009). Today, corporate entrepreneurship literature explains that differences in organizational structures, practices and objectives of incubators have hampered the definition of unified conceptual frameworks. Some authors have produced complex models for the evaluation of independent business incubators, describing them as fueling exogenous growth (Mian, 1997; Bigliardi et al., 2006; Van Burg et al., 2008). Recent works report important relationships to firms, suggesting that incubators also trigger endogenous growth (Kohler, 2016; Shankar et al., 2018; Weiblen et al., 2015). As such, their performance may depend on the way corporations design and run them, as well as the factors (if any) that influence operations. Finally, the research that exists has yet to cumulate into a robust corpus of knowledge built around a core framework with a shared understanding of questions, methodologies and knowledge gaps.

2.2. Assessing organizational performance

Although research on organization effectiveness has been key for organizational theory for a long time, many firms use only financial criteria to measure performance (Dawidson, 2006). Yet, as many studies have shown, such criteria alone are insufficient indicators of firm performance in the long run. Financial measures alone do not fit well with today's dynamic markets, multi-product firms, and high fixed cost environments (Goodman et al., 1977; Cameron, 1986; Dvir et al., 1993). These limitations led in recent years to the emergence and deployment of multi-dimensional models for measuring performance at the firm level (Lemak, 1996; Dvir et al., 1992; Kaplan et al., 2016; Edvinsson et al., 1997). More empirical studies identify additional, more refined measures of performance and success at the project or program levels (Maltz, 2000). Ironically, however, the innovation management literature has been slow to adapt to similar concepts, and there is no agreement on a standard, or even an operative framework for assessing corporate incubator performance. As the following sections illustrate, part of the problem is due to the current perception of incubation activity and, as a result, measures on the various studied initiatives have been diverse, limited, and often not connected to corporate innovation and organization performance. Therefore, a deeper understanding of the role of corporate innovation projects and programs requires longitudinal analyses of a sequence of projects and their collective impact over time.

2.3. One size does not fit all

Corporate incubation programs and independent incubators address the challenge of supporting internal and external ventures by providing access to abundant resources -education, mentoring, networking, physical space- but only for a short, fixed time period. The resources provided during the program connect the ventures to the local innovation ecosystem and to elements such as partners, funding opportunities, deal makers and mentors that are critical to the long-term innovation and entrepreneurial processes. Does the same rule apply to all corporate innovative ventures? Clearly, there are great differences among them. Projects may differ in terms of technology, size, complexity, risk, and other variables. Several studies recommend using a more project-specific approach, and suggest distinguishing between different project types, and using different management styles to manage them (Vanderstraetena et al., 2016; Battistella et al., 2015). Relevant literature has largely discussed incubator versus non-incubator venture performance as well as the characteristics of incubation programs (Mian, 1997; Aernoudt, 2004; Grimaldi et al., 2005, Lukes et al. 2019). However, the performance of corporate incubation programs has not been studied by combining strategic, managerial and operational visions.

Thus, while budget, schedule and financial return on investment manifest themselves as key metrics of a venture implementation and development (Atkinson, 1999), the quality and performance of a corporate incubation program as a whole is a multi-faceted concept with a more fluid measurement horizon (De Wit, 1988; Shenhar and Levy, 1997).

2.4. Influences of strategic, managerial and operational roles

Corporations struggle to straddle between opportunity-seeking –for example building ventures, namely through intrapreneurship and entrepreneurship programs- and advantage-seeking behaviors -strategic management (Amit et al., 2001; Hitt et al., 2000). By essence, corporate incubation features a generic tension between exploitative and exploratory activities. The way this generic tension is managed depends on a firm-specific repertoire of strategies and corresponding management processes: the (strategic) top management, the (managerial) corporate incubator support as well as the (operational) venture leads all combine practices from exploration and exploitation projects though a different lens. (Shenhar et al., 2000) have suggested a distinction between two types of projects, operationally managed projects and strategically managed projects. First, we can summarize top management strategic drivers for corporate incubation into six categories drawn from literature (Kohler, 2016; Maniak et al., 2014): a) informing new market trends, b) managing talents, pushing for c) internal-internal strategic fits d) internal towards external strategic fits e) external towards internal strategic fits g) offering a protected test bed to hatch ventures. Second, operational venture teams are focused on getting the job done and meeting time and budget goals, while achieving business and market results and winning in the market place. Third and finally, the managerial incubator team plays a dual role of operational support towards the incubated ventures, as well as a constant market-driven analysis of each venture's situation to fuel the decision-making process of the top management (Becker et al., 2006).

Based on the Leonard study case, we therefore address the following research question: "How does a corporate incubator influences the firm strategy, and consecutive performance results?" This research looks at demonstrating corporate incubation fuels both endogenous and exogeneous growth in desirable ways, playing the role of a new kind of venture-based corporate innovation platform.

3. Method

Building on a longitudinal qualitative research spanning 18 months (Pettigrew, 1990), we investigate the innovation capability management in a large construction firm, VINCI. Headquartered in Paris and covering more than 130 countries, the global firm launched in 2017 a worldwide innovation platform called Leonard (Leonard, 2019). This platform combines (i) foresight works exploring VINCI industries and related activities, (ii) a corporate incubator dedicated to internal and external ventures and (iii) a physical open laboratory, located in Paris, that plays a major role of growing networks and organizing events around urban studies. This research looks especially at the corporate incubator, that looks at extracting value through employee, partner- and startup-powered corporate innovation.

Based on a specifically-designed process of selection and venture support spanning 3 to 18 months, the corporate incubator encourages existing employees, partners and external ventures to submit ideas, frame them into a product or a service, iterate until validating a value proposition with customers, deduce a business model and test them on the market. Maturation of concepts, new products and services, the creation of business units, partnerships, joint ventures and spinoffs are sought. 30 internal -initiated by intrapreneurs or business units- and external –startups- ventures beneficiated from Leonard support between September 2017 and December 2018. A systematic analysis of their sequential journey through the incubation process is led. The first author of this paper is a reflexive practitioner (Visser et al., 2010) who designed and ran the corporate incubator within Leonard over the study period, bringing his experience and an unusual set of data to the research work. In particular, interviews with both internal and external stakeholders were conducted, field notes, communication, documents and records from the firm and the ventures largely collected. The author witnessed hands-on all strategic decisions of the firm related to Leonard, including those impacting its endogenous business ecosystem.

This research paper proposes a multidimensional framework for the performance assessment of both the Leonard incubator and the incubated ventures. Based on the previously exposed literature and the case study, we perceived corporate incubation success as a multidimensional concept, and the objective of this work was to see what specific performance dimensions would make sense. We started our analysis with the six strategic drivers that were key in designing the incubation protocol: informing new market trends, attracting and repositioning talents, identifying and accelerating strategic fits between –internal-internal, internal towards external, external towards internal- ventures, and offering test beds to innovative projects. Our research goals were first, to assess whether these drivers have a role in defining the venture and program performance dimensions, and second, to identify what are the specific measures that create each dimension, as well as their weight in the portfolio. We were also concerned to discover how each dimension would be affected by different time frames and by the nature of the ventures itself.

Because of the nature of the research, we combined qualitative and quantitative methods on a single data set, describing the 30 selected ventures journey through incubation. In the first stage we examined all ventures to which we classified in incubation input and output categories. Specifically, we subscribed to the process of qualitative case study research as suggested by (Eisenhardt, 1989). The second stage involved assessing and categorizing the ventures according to the studied incubation drivers and four newly defined performance dimensions, based on the available materials. The third stage looked at how those ventures drove the firm strategy and fueled both the endogenous and exogeneous growth.

4. Four dimensions of performance

Analyzing the ventures' incubation process, we looked for typical performance dimensions that the strategic, managerial and operational teams would recognize as important across all projects, although not with the same priority. We sought to assess the nature of the in-design drivers for the corporate incubator, and how did the different stakeholders see their importance relative to other motives and inputs. We started with the six in-design drivers previously exposed. Since ventures are selected and supported for different expectations, we also examined how these drivers would relate to each other. Our observations led to define four dimensions of performance as described below.

4.1. The first dimension: financial performance

The first question we examined was the perception of strategic, managerial and operational teams toward having a financial return on investment. Not surprisingly, this dimension seemed critical to them all. Furthermore, most operational teams were convinced that this was their priority- that their individual performance would be assessed by how well they could demonstrate quickly a financial return. Ventures involving low technology and/or incremental innovations, and those that could benefit first hand from the firm existing distribution networks, were those where the perception of this dimension was the most perceptible. A notable case was the CCL project featured in **Table 1** below. This advanced internal venture worked on machine learning applied to highway traffic management. Despite the necessary large investment, both strategic and managerial teams felt that the price was right and that the financial short-term benefit from the final result largely justified the selection and strong support.

4.2. The second dimension: market performance

The second dimension we examined was the drive for market performance, which means a better and successful positioning for the corporation. This is key, as improving market positioning helps differentiate the firm's brand from its competitors, appeals to customer's needs, and creates enhanced consumer loyalty and consumer-derived brand equity. While focusing on this dimension, the firm is usually looking at improving an existing product or service, or to increase its existing product line, without necessarily revolutionizing the entire corporation offering or marketing. Such ventures are common in industry, and their operational risk is reasonably low. The immediate benefits the firm is looking for are the prospect of additional profits on a short- to medium-term, but also of increasing market share, and gaining the means for additional product lines or technological capabilities.

4.3. The third dimension: the ecosystem dimension

For the third dimension, we looked at how the firm fostered relationships between internal and external stakeholders. The ecosystem concept is largely used in the business field, defined as a constantly forming network of companies that collaborate to produce systems that hold value for customers (Moore, 1997). As more and more startups perform a significant role in economic growth, large corporations look at benefiting from the exogenous experience that can be found in the ecosystem. A firm willing to embark on partnerships with external entities aim at medium-term performance results: stakes are high, but so are opportunities. Successful cooperation and co-developments aim may create leapfrog advantages for the performing firm, and although profits may come later, they would be high. A performant ecosystem produces entirely new products, establishes new product lines, creates new markets, and results in creating new technological generations and endogenous core competencies.

4.4. The fourth dimension: the foundational dimension

Finally, many internal and external ventures are selected for reasons beyond immediate profit, market positioning or to emulate a partnership. Therefore, we defined a fourth dimension called foundational. Support of iconoclast ideas, exploration of nascent paradigms and sectors, investment in teams or key people: the firm top management, in the long run, plans new generations of products, hopes to enter new markets, gain command of new technologies, gather substantial reputation and grow competitive teams. All these can be seen as ways of creating new opportunities for the organization- ones that are beyond short-term profit. Costs and risks are greater in such a foundational dimension – products can fail, teams can leave the company, etc. – but so are the opportunities, many of which will have longer-term impacts. The benefits of such ventures are opportunities to leapfrog for the firm in the best-case scenario, but most importantly long-term leadership.

5. Data and results

In this section, the nature and origin of the 30 selected ventures are described in **Table 1**. The incubation outcome, drivers and key performance dimensions are summarized in **Table 2**. **Table 3** features the distributions of (i) the output types of ventures and (ii) the targeted dimension of performance following incubation, and consequently the corporate incubator yields related to the portfolio.

5.1. 30 selected internal and external ventures

The studied portfolio of 30 ventures which benefited from the corporate incubator covers the entire value chain of the VINCI Group. VINCI is a market leader for concessions, construction and renovation of buildings and infrastructure. 10 categories are prioritized in terms of future corporate developments (VINCI, 2019): land management and urbanism; financial engineering; use and customer analysis; design technical engineering; contracting; materials and products; operation and maintenance; user services; deconstruction and recycling; and real estate and new services. Innovative projects originate both from internal –intrapreneurs, business units- and external -startups, partners- selection processes.

Table 1. Leonard incubated ventures —descriptions and venture classification

	Name	Strategic focus	Venture description	Venture origin
1	RSL	Land management and urbanism	Design and consultancy office dedicated to adapting infrastructures to climate change	Intrapreneur
2	URB	Land management and urbanism	Biodiversity and urban agriculture consultancy firm, supporting planners and builders	Internal department
3	SUN	Financial engineering	Solar photovoltaic one-stop shop covering technical, financial and regulatory matters	Intrapreneur
4	UPG	Financial engineering	Financial tools to foster the massification of energy-efficient buildings	Intrapreneur
5	ROA	Financial engineering	Tools dedicated to road maintenance and holistic assessment of road overlay strategies	Ecosystem

6	OIA	Financial engineering	Standards and finance frameworks dedicated to building and industrial asset management	Intrapreneur
7	FEL	Use and customer analysis	Web scraping digital solution targeting airports user and consumer feedback	Internal department
8	CCL	Use and customer analysis	Artificial intelligence entity dedicated to road infrastructure and traffic management	Internal department
9	KLK	Use and customer analysis	AI tool optimising real-time building electricity consumption in a smarter and cheaper way	Ecosystem
10	HLK	Use and customer analysis	SaaS solution offering machine learning capabilities targeting infrastructure operations	Ecosystem
11	SCL	(Eco-)design technical engineering	Digital platform dedicated to the analysis and exploitation of geotechnical data	Internal department
12	LOO	(Eco-)design technical engineering	Foresight and consultancy office watching high-speed transportation technology and solutions	Intrapreneur
13	WMR	(Eco-)design technical engineering	Innovative roof mounted small wind turbines	Ecosystem
14	FSS	Contracting	Service-based approach supporting the growth, move and transfer of manufacturing facilities	Intrapreneur
15	RST	Contracting	Recycling CO2 using micro-algae process	Intrapreneur
16	NVR	Contracting	New approach of construction combining digital tools, off-site and on-site building methods	Intrapreneur
17	HYD	Materials and products	Porous asphalt concrete materials to reduce thermal island effects in cities	Ecosystem
18	CNC	Materials and products	Concrete additive manufacturing (3D printing) company with full integrated services	Intrapreneur
19	AVS	Operation and maintenance	Augmented visualisation of underground services (mapping of cables and pipes)	Intrapreneur
20	BLD	Operation and maintenance	Creation of digital twins: building information modelling and operating system (BIM-BOS)	Internal department
21	NVI	Operation and maintenance	Sound recognition and monitoring technologies to address noise pollution on worksites	Intrapreneur
22	MNN	User services	Design, digital and sociological consultancy dedicated to coworking spaces	Intrapreneur
23	EBE	User services	Digital tools that enable the management and dematerialization of concrete deliveries	Ecosystem
24	REH	User services	Augmented reality for staging and renovation home services	Intrapreneur
25	CAL	User services	Digital platform that matches building renovation needs with construction professionals	Internal department
26	ROB	Deconstruction and recycling	Cross-division R&D entity dedicated to robots for construction sites (building, deconstruction)	Intrapreneur
27	WMP	Deconstruction and recycling	A cost-saving, easy-to-use and eco-friendly digital solution to handle construction waste	Intrapreneur
28	TRS	Organization and internal processes	Support team dedicated to digital talent sourcing and recruitment	Intrapreneur
29	HUB	Real estate and new services	Real-estate and development activity dedicated to co-living spaces and buildings	Intrapreneur
30	NFC	Real estate and new services	New generation real estate valuations backed by cutting-edge algorithmic technology	Internal department

5.2. Corporate incubation results and performance

For each venture, using our own observations and the material at hand, we characterized the main incubation drivers: informing new market trends (Watch), attracting and repositioning talents (Talent), identifying and accelerating strategic fits between –internal-internal, internal towards external, external towards internal- ventures, and offering test beds to innovative projects (Hatch). We then indicated the nature of the venture out of incubation (Outcome) and assessed the overall venture performance. Specifically, we asked to the strategic and managerial teams to identify the key performance dimension among the four previously defined dimensions. Results are shown in **Table 2**.

Table 2. Incubation outcome, drivers and key performance dimensions

	Outcome	Watch	Int -> Int	Int -> Ext	Ext -> Int	Hatch	Talent	Key performance
RSL	New business unit	X	X			X		Market
URB	Spin-off	X			X			Foundational
SUN	New business unit	X			X	X		Market
UPG	New product or service		X			X	X	Foundational
ROA	Maturation		X					Ecosystem
OIA	Abandoned project		X			X	X	Foundational
FEL	New product or service				X		X	Financial
CCL	Spin-off		X					Financial
KLK	External startup	X			X			Financial
HLK	External startup	X			X			Financial
SCL	Spin-off			X			X	Financial
LOO	Abandoned project	X			X		X	Ecosystem
WMR	External startup				X			Ecosystem
FSS	Maturation			X		X		Market
RST	Maturation		X				X	Market
NVR	New product or service			X		X	X	Foundational
HYD	Abandoned project				X		X	Ecosystem
CNC	New business unit				X			Market
AVS	New product or service			X		X		Market
BLD	New product or service	X	X			X		Market
NVI	Maturation			X				Financial
MNN	New product or service	X		X			X	Financial
EBE	External startup				X			Ecosystem
REH	New product or service			X				Financial
CAL	Spin-off				X			Market
ROB	New business unit	X	X			X		Foundational
WMP	New business unit			X		X		Market
TRS	New product or service		X			X	X	Foundational
HUB	New business unit	X			X	X	X	Foundational
NFC	Spin-off	X		X		X		Financial

5.3. Corporate incubation performance

Based on the dataset and the previous results, **Table 3** features the corporate incubator yields based on incubation outputs (i.e. the type of exit) as well as a performance-based categorization of ventures. Results show that a spinoff-oriented corporate incubator managed with a financial objective would have led to a success rate of 17%. On the other hand, the Leonard corporate incubator integrating multiple performance dimensions display a success rate of 77%. Success rate is measured as the ratio of new operating activities (spinoffs, business units, startups or new product or service) out of incubation.

Table 3. Incubation yields and outcomes for incubated ventures

INCUBATION OUTCOME	Ventures (#)	Yield (%)
Spinoff	5	17%
New business unit	6	20%
External startup	4	13%
New product or service	8	27%
Maturation	4	13%
Abandoned project	3	10%
TOTAL	**30**	

BY KEY PERFORMANCE	Ventures (#)	Yield (%)	Nature of ventures
Financial	9	30%	Spin-offs
Market	9	30%	Spin-offs, new business units, new product or service
Ecosystem	5	17%	Spin-offs, new business units, new product or service, external ventures, partnerships
Foundational	7	23%	Maturation, spin-offs, new business units, new product or service, external ventures, knowledge-, human- and market- positioning
TOTAL	**30**		

6. Discussion and implications

Clearly most ventures are selected and supported with a business perspective in mind, and often with a goal which is focused on better short- to medium-term performance, i.e. more profits, additional growth, and rapidly improved market position. This short-term financial mindset is reflected in the innovation management literature, which has traditionally used time and budget, venture survival rate, portfolio sizes, as the main indicators for incubator success and performance. We argue that any of these measures – or even all taken together – can lead to incomplete - or even misleading – assessment. (Baccarini, 1999) has suggested a hierarchy of venture objectives including goal, purpose, outputs and inputs, and has suggested to differentiate between product or service success and venture performance. In essence, according to this framework, a venture performance is detached from expected business performance. By extrapolation, corporate incubation programs are similar.

Obviously, when managerial and operational teams are engaged in day-to-day venture structuration and development, they are not typically focusing on the ecosystem and foundational business aspects. Their attention, rather, is operational – and their mindset is on "getting the product or service done", getting some feedback from the market – i.e. please the customer or the partner – and making sure the business value proposition makes sense. This is where the role of the corporate incubator becomes crucial, while balancing the four performance dimensions with a complementary mission from the strategic, managerial and operational teams. Thus, strategic and managerial teams spend a great deal of their time, attention and activities at looking at how improve the corporation market position in the long run. In today's rapid changing world, sharing the responsibility between exploration and execution at the venture, program and firm scales appear more and more crucial. With increased pace and competition this trend will only accelerate, and we assert that such a trend will become the norm in large organizations as well. Ventures in the future will no longer be operational tools for executing a firm strategy, they will be the engines that drive strategy into new directions.

Our study reveals disparities in the dynamics of the performance assessment framework and the changing nature of performance measurement with its short- and long-term implications. The first and second dimensions can be assessed on the short- and medium-terms, when the products and services are delivered to the customers and they are using them. Sometimes, it can be assessed only after a significant level of sales has been achieved- usually one or two years. The third dimension and fourth dimensions are more subtle, since some characteristics can be assessed just after incubation completion – the existence of a partnership for example – whereas other can only be assessed after a longer time, of probably two, three, or five years: growing a leadership team, exploring new sectors. This comes as no surprise, since preparing for the future can only be recognized and assessed much later. The long-term benefits from those ventures will affect the firm only after a few years. The conceptual time frames of the different performance dimensions are described in **Figure 1**.

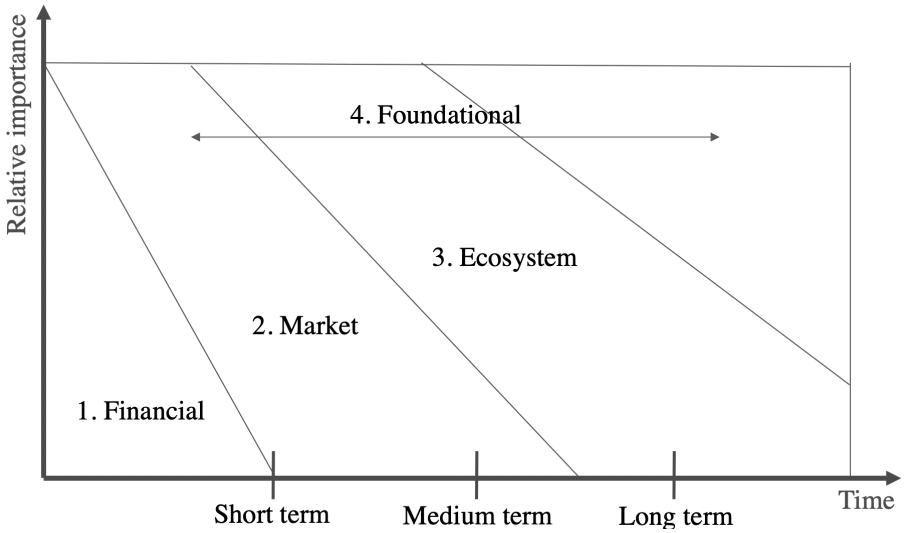

Figure 1. Relative importance of performance dimensions is time dependent

7. Conclusion and future implications

The purpose of this research paper was to analyze the corporate incubator role on the firm strategy and performance. Performance means different things to different people. This idea influenced the introduction of a multidimensional framework that reflects the perspectives of strategic, managerial and operational teams. Based on the Leonard case study, we were also interested in seeing how different performance dimensions would change with different venture types. The results show that corporations that have a strong strategic emphasis on integrating the different but complementary performance dimensions may exhibit a higher average value of profitable growth than firms that focus on one of them. More importantly, distinct from more traditional innovation departments that target endogenous developments but lack the business ecosystem perspective, our research shows that corporate incubators may be the future of corporate innovation by combining both endogenous and exogenous stakeholders, a multitemporal perspective and a multidimensional performance capability. This research hence challenges the corporate innovation "endogenous versus exogenous" growth status quo.

In this paper we particularly focused on the trajectory and the flow of incubated ventures, which means the longitudinal dimension of the corporate incubator. In contrast to the works of Maniak et al. (2014), the empirical case of Leonard consists of a series of ventures that neither required any breakthrough technology or service nor a top management initial vision, both evolving with time. However, two pillars in the reasoning may fuel future analysis: (i) the importance of a guiding and generative design to frame the incubation journey; (ii) the significance of meta-rules to maintain venture integrity and overcome innovation barriers related to intra-organizational and market resistance, frozen knowledge and process rigidities (Berggren, 2019). The role of experimentation, dynamic decision-making process and trial-and-error learning in changing a venture journey constitute critical areas for future research.

Acknowledgements

We would like to thank all involved Leonard employees for their constructive feedback. The research contained in this publication was made possible by the authorization of the VINCI Group.

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