

BUSINESS MODEL DESIGN & LEAN STARTUP APPROACH: A LIAISON BETWEEN STRATEGY AND ENTREPRENEURSHIP

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ABSTRACT

While theories on Entrepreneurship and Strategy has often followed two independent paths, scholars have recently recognized the importance to integrate these two literature streams, naming this intersection as “strategic entrepreneurship”. However, a literature analysis showed the existence of several “stand-alone” and unstructured theories. Apart from such theoretical gap, a “practical” gap also exists whereas new venture entrepreneurs face a lot of difficulties in order to find a suitable approach to successfully launch their start-ups. This study aims at investigating and evaluating the concrete contribution of the combined use of Business Model Design (BMD) & Lean Startup (LSA) approach. By taking advantage of the direct experience in a School of Management, four new ventures have been investigated, allowing to compare the different approaches followed by entrepreneurs (traditional Business Plan approach versus Business Model Design & Lean Startup approach). The findings reveal that, in high dynamic, turbulent and complex environments, such as high tech market segments, the simultaneous use of BMD&LSA provided better performances compared to those start-ups that followed a more traditional approach based on Business Plan. The empirical analysis has been conducted through the action research methodology by interacting with the digital start-ups investigated.

1. Introduction

The process an entrepreneur faces in launching a new venture is characterized by significant complexity and uncertainty. Such uncertainty is the cause of the intrinsic high risk that the creation of a new venture embeds (Eisenmann et al., 2012; Ries 2011). Studies have found that millions of would-be entrepreneurs participate in new venture creation every year, although there is large variation in start-up rates among countries (Amoros and Bosma, 2014). At the same time, the large numbers of start-up attempts are matched by equally large numbers of failed efforts: for instance, about 75% of U.S. venture-backed start-ups fail, according to Harvard Business School senior lecturer Shikhar Ghosh (2013). Apparently, data seem to discourage anybody attempting to launch a new enterprise. Nobel (2011) recently found that, irrespective of what entrepreneurs define as success, the failure rate increases as its definition narrows:

- whenever failure is considered in terms of asset winding up, where investors lose part or the whole investment made, the failure rate is between 30% and 40%;
- assessing failure as a lack of return on investments, the failure rate is higher and it stands between 70% and 80%;
- finally, if failure reflects the non-achievement of the targeted goals, the rate increases up to 90/95%.

The reasons behind these poor results are various, and existing literature (Townsend et al., 2010) groups them in: i) a lack of legitimacy (Stinchcombe, 1965 and Singh et al., 1986); ii) a lack of resources (Holtz-Eakin et al., 1994); iii) entrepreneur human capital (Brüderl et al., 1992, and Gimeno et al., 1997); and iv) external factors such as environment/industry characteristics (Audretsch, 1991). Moreover, insights from the report for Canada's National Angel Capital Organization, whose revealing – and disquieting – title “Understanding the Disappearance of Early-stage and Start-up R&D Performing Firms” tells much about the gloomy picture surrounding early-stage start-ups, show that the key factors attributed for the demise of these companies were: no revenue from customers, no input from customers on R&D performed or on the product or service being developed, misreading of markets (e.g. overestimate size, delay market entry), product not needed or not simple enough for the application, poor sales and marketing decisions (e.g. distribution channels vs. direct sales, delay going global or going global too quickly), wrong timing (e.g. the product or service was too early or too late), and unaware of competitors and changing market conditions (Barber and Crelinsten, 2009).

Notwithstanding the long list of mistakes that determine poor performance and high Start-up mortality, the reported problems appear to fundamentally point at a paramount issue: entrepreneurial practices followed by entrepreneurs are often unlinked with traditional strategic theory and practices. Indeed, entrepreneurs tend to craft their endeavors around an original business idea, and fully devote their effort in pursuing its operational concretization without a clear strategic orientation (Kisfalvi, 2002); in addition to this, they tend not to take stock of existing strategy analysis models, which are seldom employed in the early phases of the new venture activity (O'Regan and Ghobadian, 2007). Hence, strategy is mistakenly perceived as an obscure tool by many “start-uppers”, and as a result, the relationship between the original business idea, the new venture's goals, the actions to achieve such goals, and the related performance, is often lost in translation (Kraus and Kauranen, 2009).

The research stream on Strategic Entrepreneurship aims at tackling this issue from an essentially theoretical standpoint, in the attempt to supply entrepreneurs with top-down, formal and sound tools to approach strategy. Recently, however new bottom-up and rather practitioner-oriented approaches emerged to tentatively fill this shortcoming: in this study, we focus on two approaches which are still under investigated, due to their embryonic stage of development (Trimi and Berbegal-Mirabent, 2012) and their fuzzy definition (Zott et al., 2011), i.e. the Business Model Design (BMD) and the Lean Startup approach (LSA).

The business model concept has generally referred to “architecture of a business” (Timmers, 1998; Rappa, 2001; Weil and Vitale, 2001) where the essence was defining how the enterprise delivers value to customers, enticing them to pay and converting the payments to profit (Teece, 2010). Research on BM design evolved from elaborating taxonomies (Tapscott et al., 2000; Amit and Zott, 2001; Rappa 2001; Weil and Vitale, 2001), to defining a theory (Osterwalder, 2004), to supporting firms' strategy analysis (Ghezzi, 2012). When analysing BMs, the researchers' focus has shifted from a single firm to a network of firms, gradually transforming the BM from a monolithic entity to a multifaceted concept (Ballon, 2007), to be investigated as a combination of multiple and diverse design dimensions and interrelations. Such multifaceted evolutionary process, though beneficial to establish BM design as a research stream, burdened the theory with a lack of homogeneity (Johnson et al., 2008). In fact, several – often heterogeneous – frameworks or templates have been proposed to construct maps of BMs, to clarify the processes underlying, and then to allow considering alternative

combinations of these processes (also called building blocks or parameters). While the impact of business models and their innovation on a firm's success appears to be convincing (Koen, Bertels Elsum, 2011), till now the construct has been only very poorly understood (Teece, 2010). Scholars, in fact, are still concerned with the theoretical foundation and definition of BM and the literature is developing largely in silos, according to the phenomena of interest of the respective researchers (Zott et al., 2011). Nevertheless, the framework proposed by Osterwalder and Pigneur (2010) – the business model canvas - is now widely adopted and employed by practitioners.

The Lean Startup Approach has achieved large consensus among practitioners, where a lot of start-ups declared to adopt this approach. The term, coined by Eric Ries in his book "The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses" (2011) refers to a business approach that aims to change the way that companies are built and new products are launched. The lean start-up approach introduces two new concepts: minimum viable products (MVP) that efficiently test business model hypotheses, and pivots that change certain business model elements in response to failed hypotheses tests. As a third element, unlike other methods for managing early stage venture, the lean start-up approach balances the strong direction that comes from a founder's vision with the need for redirection that follows from market feedback (Eisenmann et al. 2012). The usefulness and the widely adoption by entrepreneurs of the business model canvas, with the simultaneous development of the LSA, has led to new modified framework of canvases. One of the main interesting variation is that proposed by Maurya (2012) with the lean canvas, a business model canvas optimized for lean start-up.

In this study, we propose to investigate the potential contribution of BMD and LSA to strategic entrepreneurship's theory and practice.

We first open our work by arguing that these two practical approaches show inherent relationships with the legacy of both Strategic Management and Entrepreneurship literature streams, and could be positioned at the crossroad of the two: hence, we craft a framework to organize and frame these emerging approaches used in launching new ventures within the strategic entrepreneurship literature stream – i.e., the intersection between the entrepreneurship and strategy streams – (e.g. Hitt et al., 2001; Ireland et al., 2003; Ireland and Webb, 2007; Baker and Pollock, 2007).

Such further investigation is also in line with Audretsch et al. (2010) who state that several literature gaps exist in the field of entrepreneurship and, as specifically concerns new frontiers in entrepreneurship, an issue (out of seven issues proposed) interesting to investigate refers to the "mechanism underlying processes of learning and innovation within and by new ventures".

Second, at an empirical level, our study aims at comparing the effectiveness of the emerging BMD and LSA approaches with that of the traditional Business Plan approach to support new Information and Communication Technology (ICT) ventures creation. By presenting and discussing four longitudinal cases of start-ups development in the Mobile industry, the performances achieved by two start-ups created combining the emerging approaches of BMD and LSA are benchmarked with the performances of the two other new firms initially developed adopting the traditional Business Plan (BP) approach. An action research setting enabled direct experience on the four cases, and the findings allow to underscore the impact of the design approach undertaken on achieved performance. Indeed, an improved understanding of the approaches used by entrepreneurs in creating new firms is critical to explaining the survival and growth of new ventures.

The ultimate purpose of our work is hence to frame BMD and LSA in the broader Strategic Entrepreneurship field, and provide ICT entrepreneurs with evidences that such combined approaches may outperform the traditional BP and make for improved performance.

2. Theoretical background

2.1 Strategic Entrepreneurship

While the fields of strategic management and entrepreneurship have developed largely independently of each other, they both are focused on how firms adapt to environmental change and exploit opportunities created by uncertainties and discontinuities in the creation of wealth (Hitt and Ireland, 2000). Moreover, Klein et al.'s (2012) view argues that superior performance comes from a firm's capacity to change its resource base in the face of Schumpeterian competition and environmental change. They state that superior dynamic capabilities enable firms to adapt more quickly and effectively to a changing business environment, creating a stream of temporary competitive advantages over time. More or less explicitly, these approaches emphasize the value of putting entrepreneurship into strategic management. That is why several scholars have recently called for the integration of strategic and entrepreneurial thinking (e.g., Stevenson and Jarillo, 1990; Hitt et al., 2001; Entrialgo et al., 2000). The domain of entrepreneurship research offers new theoretical opportunities for research in strategic organization. Indeed, entrepreneurship scholars have recently even begun to add a new, "prenatal" stage to the organizational life-cycle by conducting research on firm "nascence", that is, the processes and patterns that precede firm birth (Baker and Pollock, 2007). Thus, perhaps unsurprisingly, the definition of entrepreneurship's research domain that appears to be the most useful for enhancing research at the intersection of strategy and organization involves conceiving the domain as research concerned with the creation of new organizations (Carter et al., 1996). Scholars agree in defining entrepreneurship as the identification and exploitation of previously unexploited opportunities. As such, entrepreneurial actions entail creating new resources or combining existing resources in new ways to develop and commercialize new products, move into new markets, and/or service new customers (Ireland et al., 2001; Ireland and Kuratko, 2001; Kuratko et al., 2001). On the other hand, strategic management entails the set of commitments, decisions, and actions designed and executed to produce a competitive advantage and earn above-average returns (Hitt et al., 2001).

According to Hitt et al. (2001), alternative entrepreneurial opportunities constitute one of the primary arenas of choices to be made.

Strategic management provides the context for entrepreneurial actions (Ireland et al., 2001) while entrepreneurship is about creation; strategic management is about how advantage is established and maintained from what is created (Venkataraman and Sarasvathy, 2001). They aim to build on the identification of opportunities and develop them towards competitive advantages (Hitt et al., 2001). This is where the fields of entrepreneurship and strategic management intersect. The need for integration emerges as strategists, on the one hand, need to use resources in order to exploit opportunities (mostly under uncertain conditions) – and entrepreneurs, on the other hand, need to include a strategic perspective in their planning and actions.

In times of growing uncertainty and increasing speed of change, both new threats and new opportunities emerge (Eisenhardt and Brown, 1998; Shane and Venkataraman, 2000).

The identification and exploitation of these opportunities is the essence of entrepreneurship, whereas the essence of strategic management is in how these opportunities can be transformed into sustainable

competitive advantages (Zahra and Dess, 2001; Venkataraman and Sarasvathy, 2001; Kuratko et al., 2005). It has been found that many of the key topics in entrepreneurship research, e.g. new venture creation, innovation and opportunity-seeking do in fact apply to the strategic management paradigm as well (e.g. Kraus and Kauranen, 2009). For instance, innovation, interpreted in the Schumpeterian sense as new combinations of factors of production, builds on resources, which again build the basis of many strategic management instruments (e.g. Wernerfelt, 1984; Barney, 1991).

2.2 Business Model

Very recently, in the intersection between the entrepreneurship and strategic management literature streams, two interrelated issues emerged: the business model design (Teece, 2010) and the lean startup philosophy. Although business model design within the entrepreneurship field is a recent topic, it is gaining a growing attention in the literature (Trimi and Berbegal-Mirabent, 2012).

Performance of entrepreneurial firms is strongly conditioned by their adopted business models (Zott and Amit, 2007). However, new ventures in rapidly changing environments change their business models several times to succeed (Loch et al., 2008; Ries, 2011). Thus, business model design and change is especially critical to new technology-based firms (Andries and Debackere, 2007; Chesbrough and Rosenbloom, 2002). Resulting from this fuzzy environment, many start-ups fail, and a large number of those that survive end up being acquired by larger companies. It is clear that in such environment choosing the right timing and the appropriate strategy for commercializing a technological opportunity is of vital importance (Trimi and Berbegal-Mirabent, 2012).

However, according to Ries (2011), most of these failures could have been avoided if entrepreneurs would have put more emphasis on customer feedback. This requires sound knowledge about the customers and their behaviour. Moreover, Business models not only can entail consequences for technological innovations but also can be shaped by them. In summary, Onetti et al. (2012) state that studies on business models, innovation, and technology management have asserted that technological innovation is important for firms, but it might not suffice to guarantee firm success (e.g., Doganova and Eyquem-Renault, 2009). This is because technology per se has no inherent value (Chesbrough, 2007). In addition to adopting business models to facilitate technological innovation and the management of technology, firms can view the business model itself as a subject of innovation (Mitchell and Coles, 2003).

One of the main developments in business model design regards the business model canvas: such framework is widely adopted and employed both by practitioners (Osterwalder and Pigneur, 2010) and academics (e.g., see Chesbrough, 2010). Osterwalder and Pigneur (2010) identify three dimensions and nine parameters to decompose a business model as Table 1 shows.

Pillar	Parameter	Description
Value Network	Key Activities	It describes the most important things a company must do to make its business model work
	Key Resources	It describes the most important assets required to make a business model work
	Key Partners	It describes the network of suppliers and partners that make the business model work

Customer Value	Value Propositions	It describes the bundle of products and services that create value for a specific Customer Segment
	Customer Segments	It defines the different groups of people or organizations an enterprise aims to reach and serve
	Customer Relationships	It describes the types of relationships a company establishes with specific Customer Segments
	Distribution Channels	It describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition
Economic Model	Cost Structure	It describes all costs incurred to operate a business model
	Revenue Stream	It represents the cash a company generates from each Customer Segment (costs must be subtracted from revenues to create earnings)

Table 1: The Business Model Canvas (Osterwalder and Pigneur, 2010)

2.3 Lean Startup Approach

One of the main differences between existing companies and start-ups lies in the business model issue: while existing firms execute a business model, start-ups look for one (Blank, 2013). Such distinction is at the heart of the lean startup approach.

A hypothesis-driven approach to entrepreneurship maximizes, per unit of resources expended, the amount of information gained for resolving such uncertainty. When following this approach, an entrepreneur translates her/his vision into falsifiable business model hypotheses, and then tests those hypotheses using a series of minimum viable products (MVPs). Each MVP represents the smallest set of activities needed to disprove a hypothesis (Ries 2011; Eisenmann et al., 2012; Blank, 2013).

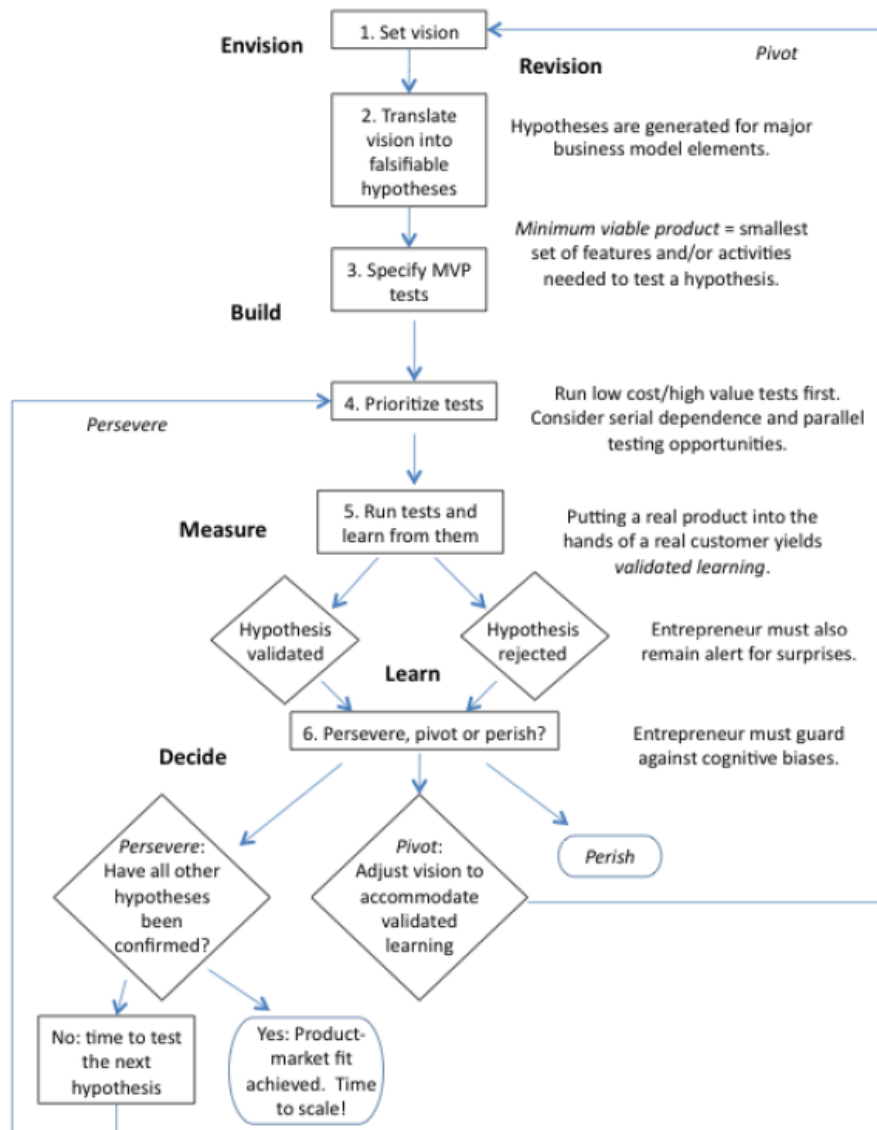


Figure 1: The Lean Startup Process Steps (Eisenmann et al., 2012)

Based on test feedback, an entrepreneur must decide whether to persevere with her proposed business model; pivot to a revised model that changes some model elements while retaining others; or simply perish, abandoning the new venture. He or she repeats this process until all of the key business model hypotheses have been validated through MVP tests. At this point, the start-up has achieved product-market fit: it has a product that profitably meets the needs of the target market's customers, and can commence scaling. A hypothesis-driven approach helps reduce the biggest risk facing entrepreneurs: offering a product that no one wants. Many start-ups fail because their founders waste resources building and marketing products before they have resolved business model uncertainty. By contrast, early-stage entrepreneurs who follow a hypothesis-driven approach do not view growth as their primary objective. Instead, their goal is to learn how to build a sustainable business. By bounding uncertainty before scaling, the hypothesis-driven approach optimizes use of a start-up's scarce resources (Eisenmann et al., 2012; Blank, 2013).

Moreover, in the recent literature there are some attempts that try to put together business model design theory and the lean start-up approach considering also competences and resources of the firm (that is considering also the Resource Based View theory). One of the main contributions comes from

Ash Maurya (2010): the result of his analysis is a modified business model canvas – the lean canvas – that, through the block named “Unfair Advantage” – includes in the business model of the start-up the concept of capability and resources that cannot be easily copied or bought (so providing the competitive advantage to the start-up).

The measuring activity is vital in this kind of process. The Lean Startup movement swept through the entrepreneurial world, advocating a lean, iterative approach to finding the right product and market with a constant cycle of building, measuring, and learning. Yoskovitz and Croll (2013), in their book “Lean Analytics: Use Data to Build a Better Startup Faster” identifies 5 steps (Empathy, Stickiness, Virality, Revenue, Scale) that help entrepreneurs running their business. By measuring and analyzing as the start-ups grow, entrepreneurs can validate whether a problem is real, find the right customers, and decide what to build, how to monetize it, and how to spread the word.

2.4 Business Plan

Kraus and Kauranen (2009) state that business plan (BP) plays an important linking role between entrepreneurship and strategic management. The BP is the document which describes the enterprise’s strategy, i.e. content and process, thereby presenting the vision of the enterprise and how the enterprise is going to attain its vision (Honig and Karlsson, 2004). In particular, the business plan can serve as the basis of the strategy itself and as its formalized documentation. Usually, it is written to serve as a means of communication with external stakeholders, especially potential investors (Castrogiovanni, 1996).

The business plan typically includes a set of key documents, organized around the following sections (Abrams and Abrams, 2003):

- general description of the firm;
- general description of products/services;
- strategic plan;
- marketing plan;
- operating plan;
- human resources and organization plan;
- financial plan, and economic and financial projections.

Several strategic tools and models have been traditionally used to craft the BP. The main ones are the Abell’s model for the competitive positioning (reference) and the SWOT (Strength-Weakness-Opportunity-Threat) analysis to generate strategic alternatives; in turn, the SWOT is built on the PEST analysis (Aguilar, 1967) and the five competitive forces model (Porter, 1980) to assess the external environment, and the value chain (Porter, 1985) or the resource-based approach (e.g. Hamel and Prahalad, 1994) to analyze the potential sources of competitive advantage.

There is still no agreement in literature about the usefulness of business planning and empirical findings have been fragmented and contradictory (Brinckmann et al., 2010); some scholars (i.e. Bhidé, 2000) argue that planning interferes with the efforts of firm founders to undertake more valuable firm. Such literature argues that instead of engaging in business planning, firm founders should move directly to action (i.e. buying facilities and equipment, seeking external capital, and initiating marketing and promotion). On the other hand, other scholars (i.e. Delmar and Shane, 2003) sustain that business planning reduces the likelihood of venture disbanding and accelerates product development and venture organizing activity.

Notwithstanding such theoretical disagreement, the business plan is the document typically used by investors to evaluate funding opportunities (Burke et al., 2010).

2.5 Start-ups and Performance

According to Ma and Tan (2006) the performance of entrepreneurial entities (Murphy et al., 1996) whether for entrepreneurs creating new ventures or innovative project teams within established corporations (Hisrich and Peters, 1986), could be measured in terms of economic profit (Schumpeter, 1934, 1975; Zahra, 1995), product innovation (Jennings and Young, 1990), new venture growth (Baum et al., 2001), concern for public welfare and social legitimacy (e.g., Pfeffer, 1994), or simply personal satisfaction (Miner, 1997), among other measures (Zahra and Covin, 1995). In their study, Podoyntsyna et al. (2013) used the firm's ROI in the last fiscal year and, second, they asked for the firm's customer retention rate in its primary served market (Lambert, 1998 and McDougall et al., 1994). ROI reflects an input/output measure that indicates efficiency, while customer retention rate reflects the stability of the monetary resource stream from the firm's customer base, indicating firm effectiveness. Su et al. (2011) measured performance by five items: i) return of assets; ii) market share; iii) net profit; iv) return on sales; and v) sales. Delmar and Shane (2003) examine the effect of business planning on three aspects of new venture development: product development, which they define as the creation of the product or service that the venture will sell; venture organizing activity, which they define as activities to establish the organization that will provide the new product or service; and disbanding, which they define as the cessation of efforts to develop the new venture.

3. Theoretical contribution

Notwithstanding its increase in popularity and the fact that its principles is being taught at well-known business schools around the world (including, for instance, Harvard), the LSA concept has limited coverage in academia. The methodology, has until today been largely practitioner driven even though some researchers have begun to pay attention to the new movement (e.g. Eisenmann et al., 2012; Taipale, 2010). In fact, there has been an overall limited research on early stage entrepreneurship in general (Zott and Huy, 2007) and Lean Startup companies in particular. Moreover, the inherent relationship between the LSA and the BMD is also disregarded.

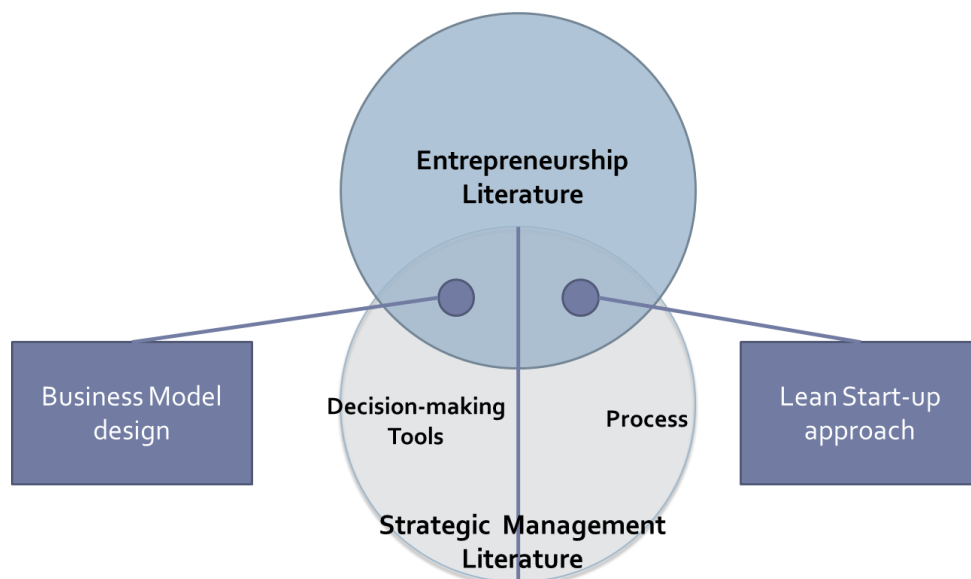


Figure 2: The Theoretical Framework positioning BMD and LSA in the Strategic Entrepreneurship literature

Nevertheless, there are theoretical concepts in other theories and disciplines that show certain similarities with the LSA. For instance within the Entrepreneurship research domain, Effectuation (Sarasvathy, 2001; Read et al., 2009) and Bricolage (e.g. Baker and Nelson, 2005) theories, following a social approach, try to explain opportunity development. Furthermore, in the LSA some experimental learning models from the organizational literature stream (i.e. Lumpkin and Lichtenstein, 2005) seem to be included. Apart from that, there are also some other LSA concepts already cited in the Entrepreneurship literature: Product development under uncertainty/ambiguity (Eisenmann et al., 2012) and building a new business (Blank, 2013) are just a few examples worth mentioning. On the other way around, LSA seems to borrow some concepts from the Strategic Management field, such as the measurement of performance (Ries, 2011) and BM sustainability (Ries, 2011). And above all, the high importance of formalization that Ries assigns to the LSA is comparable to that of other management practices (e.g. Porter's value chain, SWOT analysis).

At the same time, the BMD shows a strong cross-discipline nature that overcome the boundaries of traditional Entrepreneurship and Strategic Management research. For instance, the concepts of value creation (Hedman and Kalling, 2003; Zott and Amit, 2009) and market opportunity (Applegate, 2001; Markides, 2008) belong to the Entrepreneurship literature while on the other hand value capture (Stewart and Zhao, 2000) and value delivery (Teece, 2010) represent concepts borrowed from the Strategic Management field. As a result, we argue that the practitioner-oriented LSA and the BMD have theoretical roots in both the Strategic Management and the Entrepreneurship research streams, being positioned in the overlapped area between the two (as our theoretical framework in Figure 2 illustrates); as such, they can be tentatively framed in the Strategic Entrepreneurship literature, and provide a contribution to this significant domain.

Table 2 reports LSA's and BMD's themes related to the Strategic Management and the Entrepreneurship literature, which constitute their theoretical roots in Strategic Entrepreneurship.

	Strategic Management Literature	Entrepreneurship Literature
BMD	Value capture (Stewart and Zhao, 2000)	Value creation (Hedman and Kalling, 2003; Zott and Amit, 2009)
	Facilitate the management of technological innovation (Zott et al., 2011)	Vehicle of innovation (Zott et al., 2011)
	Description of how enterprises work (Magretta, 2002)	
	Value delivery (Teece, 2010)	
	Explain firm performances (Zott et al., 2011)	
		Tool for idea generation (Osterwalder and Pigneur, 2010)
	Source of potential competitive advantage (Markides and Charitou, 2004)	

	Customer centrality (Chesbrough and Rosenbloom, 2002)	
		Market Opportunity (Applegate, 2001; Markides, 2008)
	Capabilities definition (Zott et al., 2011)	
		Open Innovation, collaborative entrepreneurship (Chesbrough, 2003)
		Increase business creativity (Trimi and Berbegal-Mirabent, 2012)
LSA	Customer centrality (Ries, 2011; Blank, 2013)	
	Continuous innovation (Ries, 2011)	Innovation (Ries, 2011)
		Opportunity development
		Experimental learning (Trimi and Berbegal-Mirabent, 2012)
		Product development under uncertainty/ambiguity (Eisenmann et al., 2012)
		Building a new business (Blank, 2013)
	High importance of formalization (Ries, 2011)	
	(Business Model) Sustainability (Ries, 2011)	
	Measuring performances and progresses (Ries, 2011)	
	Knowledge as an important resource (Ries, 2011)	

Table 2: BMD and LSA themes and theoretical roots in Strategic Management and Entrepreneurship

4. Methodology

Because the thin archival record deposited by many start-ups requires entrepreneurship researchers to “get their hands dirty”, many entrepreneurship researchers – even those without relevant prior experience – may gain an understanding of practical issues through direct research involvement in new ventures (Baker and Pollock, 2007). Thus, start-ups provide a useful laboratory for studying many of the research questions central to strategy and organization. (Ireland and Webb, 2007)

Taking advantage of two the authors’ direct experience within different masters courses offered in an EQUIS-accredited School of Management, a selection of four appropriate cases of Start-ups in the Mobile industry have been selected, and they have been analyzed in-depth, in the attempt to identify the difference from theory to practice, and from what the companies claim they do and what they actually do.

We were involved as tutors and mentors in both the masters; the first one, an executive master in business administration whose target students is represented by managers of large companies, lasted two years and it was held in 2011 and 2012. We were involved as tutors of 2 start-ups launched on the market. During this master, students learnt the traditional business plan approach, so they developed their start-ups using this instrument. The second course is a newly designed master directly addressing new entrepreneurs: the first edition of the course has been launched in 2012 and it was repeated in 2013. This master (more open to new approaches) followed a brand new format: the business model canvas and the lean startup approach were the heart of the teaching activity, forcing start-uppers to develop their start-ups following these approaches. Again, two start-ups developed within this course are considered in our study.

The target firms were all Mobile start-ups focusing on mobile applications that were in the launching phase: this is in line with the research objectives and, according to Venkataraman (1997), the level of analysis is constituted by new enterprise itself. This allowed us to compare the results of the analysis. Therefore we had the opportunity to study and compare two different approaches used by new ventures in their very early stage of life in the dynamic context of the Mobile Industry. Table 3 reports the key data from the new ventures analyzed.

Approach followed	Start-up	Market Segment	Description
BMD + LSA	AppyU	Couponing	App that allows finding offers and discounts in bars and cafeterias of Milan. The user has only to download the app on his own smartphone to obtain coupons with discounts up to 40% on the price of breakfasts, lunches, happy hours or drinks.
	Pinevent	Events	Mobile App that allows users to look for and visualize ICT Business events in Italy on their own smartphone (more than 500 workshops and conferences). It is possible to search for events through keywords, sectors, geographic area, etc). Once the user selects an event, he can see all the details, share it on social networks and insert it in the agenda.
BP	CallATaxi	Transport	Mobile App that allows to call a taxi directly from the smartphone, in an easy and fast way. Once the taxi has been called the user can see the right position of the taxi and can know the estimated waiting time. When the user reach the final destination he can pay with the smartphone, evaluates the taxi driver and lets a comment about the travel.
	CryptoLAB	Security (Counterfeiting)	An anti-counterfeiting service that enables manufacturers to reduce the phenomenon of counterfeiting and gray market for their products; it also allows the consumer to independently verify the authenticity of a product prior to purchase. The verification is performed by using a smartphone and can be done either at the store or

			on the web. It is a computer system service combined with a specific type of product labels.
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Table 3: The 4 start-ups analyzed

Because of the authors' direct role in the development of these start-ups, our research activity conforms to the tenets of action research (AR). Avison et al. (1999) define action research as an iterative process involving researchers and practitioners acting together on a particular cycle of activities, including problem diagnosis, action intervention, and reflective learning. Action Research is perhaps the most widely discussed collaborative research approach, and a huge amount of literature on this topic is currently available (for a comprehensive review focused on AR see Baskerville and Wood-Harper 1998, Davison et al. 2004). AR was primarily developed from the work of Kurt Lewin and his colleagues, and is based on a collaborative problem-solving relationship between the researcher and the client system, which aims at both managing change and generating new knowledge (Coghlan 2000). While qualitative research broadly deals with understanding and explaining social phenomena (Myers 1999); AR deals specifically with a planned intervention stage (Davison et al. 2004). AR's primary aim is to implement an impact-seeking intervention in organizations that face complex problems (Halbesleben et al. 2006). A distinguishing characteristic of the AR project is that the planned theoretical-based intervention is known a priori (Davison et al. 2004). AR involves a process of planning, taking action and then fact-finding about the results of that action in order to plan and take further action (Lewin 1973). In other words, you can see AR as the application of the classical experimental design of (i) measuring beforehand, (ii) performing the intervention, (iii) measuring ex post, but applied to social units and not individual subjects (Nosek 2007). Expected signs of effective AR are commonly: (i) organizational improvements, (ii) better awareness of members' potentials and competencies, and, hopefully, (iii) improved performance (Hatchuel and David 2008). Single case study projects, according to Benbasat et al. (1987), are most useful in the initial stage of theory generation or exploration and during the late stage of theory testing. In this case it will be performed after the multiple evidences analysis, since a single case study can be a powerful instrument for establishing limits on the generalizability of the theory or to refute it totally (McCutcheon and Meredith 1993).

Cuervo et al. (2007) hold that researchers who want to make a unique and worthwhile contribution to entrepreneurship research should seriously consider making the effort to study new enterprise efforts, although collecting this kind of data is far from easy. New enterprise efforts would be studied over time regardless of their organizational context and their human champion both of which may change over time.

Empirical Result

As seen throughout the literature review, there is a broad spectrum of performance measures around which new ventures are compared and evaluated. Nonetheless, measuring the performance of new ventures is problematic because there is no consensus among researchers as to what constitutes entrepreneurial success (Brush and VanderWerf, 1992). Moreover, prior studies point out that entrepreneurs have differing objectives for starting new firms (e.g., "lifestyle ventures" versus "gazelles") and that objectives may vary in importance at different stages in the entrepreneurial process and in different industries. For example, positive cash flow or profitability may not be a prime goal for early-stage ventures trying to establish competitive positioning in an emerging market (Gruber, 2007). According to Kakati (2003) most of the new venture researches have focused on

financial indexes, for instance by taking ROI as a measure of new venture performance, despite the pitfalls of using ROI (i.e. the firms would not be expected to achieve break-even within the first few years and ROI is sensitive to accounting practices). Other researches focus also on market share gain - but Miller et al. (1988) hold that this measure may be problematic for pioneering ventures, as they would initially have 100% of the market, only to have this reduced as new firms entered - sales growth and so on and so forth, mainly because of being readily available, easy to measure and non-confidential.

Therefore, we tried to build a “vector of performance” considering some of the parameters presented in literature that are key in the start-up development process. We consider our approach to measuring performance a viable – though possibly imperfect – solution one to a very complex problem.

In sum, our set of performance measures is composed by:

1. termination of the new venture;
2. product development;
3. venture organization activity;
4. equity funding;
5. first customer acquisition.

Shane and Delmar (2004) define termination of the organizing effort as a decision to terminate the endeavor made by all members of the venture team, because venture teams are often quite fluid, leading a venture to proceed with only part of the group that initiated the effort. We decided to focus on “termination of the new venture” because, as suggested by Shane and Delmar (2004), continuation of the organizing effort is a necessary condition for all other activities in new ventures. A new venture can achieve no other performance goal (achievement of first sale, positive profits, or the acquisition of financing) if it has been terminated. Our involvement as tutors in the start-ups’ team allowed us to know immediately whether everyone pursuing the venture has terminated, and if so, when.

We also took into account two other different aspects of new venture development used by Delmar and Shane (2003): product development, which they define as the creation of the product or service that the venture will sell; and venture organizing activity, which they define as the set of activities to establish the organization that will provide the new product or service. We measured product development as the amount of time needed to develop the first product or service delivered to the market, while we measured venture organizing as the time needed to set up those activities that establish the physical structure and organizational processes of a new firm (Bhave, 1994). The last variable takes into account whether the start-up has accomplished all the different activities related to bureaucracy (e.g. registration with government and tax authorities, the obtainment of permits and licenses to operate) and to both logistic and marketing issues (e.g. purchasing of raw materials, equipment, facilities and marketing and promotion activities).

Then we also took into account whether the start-up has received financing from any venture capital firm or not. The credibility associated with a funding event gives a strong signal about the quality of the startup. In a market with high uncertainty, the relevance of this signal is likely to be significant in reducing the perceived uncertainty of being associated with a particular company (Davila et al., 2003). Finally, we also monitored the time passed from the launch of first version of the product to the first customer/external user acquired. We added this variable because in the LSA customer feedback constitutes a relevant part of the methodology.

Table 4 summarizes the different start-ups’ performances. The findings show how all the performances achieved by start-ups following a BMD + LSA approach were superior than those achieved (or not achieved) by those start-ups developed through a BP.

Approach followed	Start-up	Venture organizing activity	Termination of the new venture	Product development	First customer acquisition	Equity Financing
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BMD + LSA	AppyU	3,5 months (process completed)	No	3 months	2 weeks	Yes (Seed financing)
	Pinevent	2,5 month (process completed)	No	4 months	1 week	Yes (Seed financing)
BP	CallATaxi	9 months (process completed)	No	8 months	2 months	Yes (Seed financing)
	CryptoLAB	1,5 year (not yet completed)	No	1,5 year (not yet completed)	No	No

Table 4: The comparative analysis of the 4 start-ups

Apart from the performance comparison, during the action research some other issues arose. During the whole LS approach it emerged that some resources and competencies neglected by the entrepreneurial team were, instead, “core resources” (meaning that they are important in sustaining the competitive advantage of the firm). Nonetheless, we also noticed that the LSA fastened the “learning process” of founders, pushing them in improving/acquiring competencies and capabilities that are core in running the new Business Model.

Conclusions

This paper provides two main contributions to the existing knowledge.

On the one hand, this study frames in the academic literature two well-known popular tools among practitioners: the Business Model Canvas and the Lean Startup Approach.

Our theoretical framework show that BMD and LSA should be included in the strategic entrepreneurship literature field, since their founding elements are linked with the strategic literature and the entrepreneurship literature too. These findings represent the first step to provide a robust theorization of the two emerging concepts, to lay the basis for rigorous empirical validation. Our study offers an alternative approach to strategically drive the process of entrepreneurial action, and supports the idea that exists an “entrepreneurial method” analogous to the scientific method (Sarasvathy and Venkataraman, 2011). Furthermore, the main theoretical contribution of the Business Model Design and the Lean Startup Approach to existing theories of entrepreneurial action like Effectuation and Bricolage, is to highlight the importance of experimentation and to stress the learning aspect of the entrepreneur during the journey of starting a company. The need for a shift from simple business planning to experimentation and learning has been recently put forward by some studies (Brinckmann et al., 2010), and this paper provides practical evidences supporting this point of view.

On the other hand, this paper provides also some practical implications. The main contribution lies in guiding practitioners towards new approaches – appropriately rooted in the theory - favoring the shift from the traditional approach based on Business Planning, by now obsolete in the turbulent ICT context, to the new approach constituted by a combination of BMD and LSA. In fact, Bhidé (2000) argues that the efficacy of written business plans is context specific: it is likely to have a positive impact in more static and predictable/stable markets but less so in more uncertain markets where entrepreneurs are introducing highly innovative products/services.

Moreover, the analysis we made makes us suggests that in order to develop a new venture BMD and LSA should come first; business plan could be used as a second step, to refine the previous methods’ outcome and better frame the business idea in the competitive landscape (external and internal analysis; marketing plan; operations plan; financial analysis). This is particularly true in high

turbulent environment as in the Mobile industry. Hence, the ideal process that starts with the business idea generation should then continue with the design of a business model and the application of the lean techniques. When the business idea reaches the product/market fit, the new entrepreneur could write the BP, and employ those traditional strategic models she or he too often tend to disregard.

This study is not without limitations, which mainly derive from any potential observer bias in the action research activities: this is a shortcoming that burdens qualitative research, though the rigorous methodology employed (e.g. we followed all the 5 principles proposed by Davison et al. (2004) in order to conduct a rigorous action research activity) attenuates this limitation. Moreover, other limitations refer to the need to generalize findings drawn from a single industry, to the small sample size of start-ups analyzed and to the selection of key performance to evaluate.

To conclude, our research outlines several opportunities for future research; first, it pushes to further investigate and enhance the theoretical roots of BMD and, above all, LSA, so as to further justify their positioning in the strategic entrepreneurship research stream. Secondly, future research efforts could try to better understand the efficacy of BMD e LSA in launching new ventures, and to investigate how all the relationships between the BMD and LSA change during the very early stage of life of the Start-ups. Moreover, we pave the way to the investigation of whether the simultaneous application of the LSA and BMD in the early stage of a new firm can help entrepreneurs in the exploration of new opportunities. Other future research avenues should try to overcome all this study's limitations by validating findings in different contexts and analyzing larger samples for instance.

Finally, according to Kraus and Kauranen (2009), one of the most promising areas for future research is the pre-start-up planning stage. Strategic management of an enterprise before and during the phase of its foundation is a topic of increasing interest. This includes research on the role of the business plan in the planning process, another topic of growing academic interest.

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