BOUNDARY CONDITIONS OF BUSINESS MODEL DYNAMICS: NEW VENTURES IN NASCENT MARKETS

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BOUNDARY CONDITIONS OF BUSINESS MODEL DYNAMICS: NEW VENTURES IN NASCENT MARKETS

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ABSTRACT

A growing body of research devotes attention to new venture evolution in uncertain and ambiguous environments. Extant literature recognizes the importance of adaptation as a key aspect of this evolution but lacks a detailed understanding of the micro-processes through which new ventures can evolve into an optimal archetype. Building on an ethnographic study of a new venture, we introduce “archetype legitimacy” as an important contingency to distinguish between experimental and structural processes of archetype adaptation. Before legitimacy is obtained, experimental adaptation prevails and is realized through mechanisms of resource relaxation and business model learning. After legitimacy, structural adaptation takes place, which is realized through prospective processes of sense-giving to the new business model, sense-breaking of the old business model and resource ambidexterity.

INTRODUCTION

Successful innovative firms seem to emerge around us with contemporary business models and organizational configurations. However, we tend to forget that, early in life, these same companies spent considerable time developing the business model and organizational configuration that best fitted the emerging industry they entered. Although adaptation and transformation of an established organizational form are recognized to be key to the survival and growth of new ventures in emerging industries (Barron et al., 1994), the detailed process through which new ventures evolve towards such an optimal form is less clear. The contemporary entrepreneurship literature tends to suggest that entrepreneurs adjust their resources relatively easily to emerging opportunities through processes of effectuation (Sarasvathy, 2008), bricolage (Baker & Nelson, 2005) and inductive reasoning (Cornelissen & Clarke, 2010). In contrast, the organizational theory literature on evolution and change highlights the high degree of inertia that needs to be overcome to induce a process of organizational adaptation in both established organizations (Greenwood & Hinings, 1993; Siggelkow, 2002) and new ventures (Gilbert, 2006; Ambos & Birkinshaw, 2010). As a result, the process of adaptation and change tends to be lengthy and difficult to manage (Gersick, 1991).

At first sight, both literatures seem to offer contradictory views on how new ventures evolve. In order to resolve this seemingly contradictory puzzle, we set out to investigate the micro-processes of new venture evolution in detail. We pursue a grounded research strategy through an ethnographic study of an entrepreneurial venture in a nascent market. This setting is appropriate for our research purpose since nascent markets involve considerable ambiguity and lack dominant archetypes (Santos & Eisenhardt, 2009; Kaplan & Tripsas, 2008; Ozcan & Eisenhardt, 2008). A new venture starting up in such an environment will have to continuously adapt its archetype to the environment. The paper unfolds as follows. First, we provide a brief theoretical background on organizational adaptation. Second, we describe our grounded research methodology and introduce the venture under study. In
the findings section, we build a fine-grained understanding of how the venture under study evolved into an organizational archetype and adapted to changing environmental conditions.

**THEORETICAL BACKGROUND**

The contemporary entrepreneurship literature recognizes inductive adaptation mechanisms such as effectuation (Sarasvathy, 2008), bricolage (Baker & Nelson, 2005) and improvisation (Baker et al., 2004) as core components of new venture evolution. These mechanisms include a variety of sub-processes such as short experiments to learn from the environment (Chandler et al., 2011), bootstrapping as a main source of finance (Grichnick et al., 2013), a focus on problem solving rather than capability development (Baker & Nelson, 2005) and the flexible use of subcontractors and alliances to adjust to difficult to predict environmental requests (Baker et al., 2004). The underlying tenet is that new ventures instantaneously adapt when new opportunities emerge. However, this might be an oversimplification. Organization theory argues that adaptation can be a lengthy and difficult process. In contrast with the entrepreneurship literature, where the entrepreneur is often viewed as unified with the organization or new venture itself, the organizational view considers an organization to be a complex system of interrelated components that reflect an interpretive scheme. An important aspect of organizational adaptation focuses on how to change interpretive schemes through processes of sense-making and sense-giving (Fiss & Zajac, 2006; Stigliani & Ravasi, 2012). One of the reasons why both literature streams might have come to very different results is because the empirical settings behind them are typically very contextualized. For example, Ambos & Birkinshaw (2010) depart from specific “archetypes” in organizations at point zero to analyze how they evolve to the next stage. The point of departure thus is a given archetype. In contrast, the entrepreneurship literature does not define the organizational setting at all. Typically, an upper echelon perspective is used where the founder’s decision is assumed to be coterminous with the behavior of the venture itself. This assumption is increasingly challenged in the management literature (Souder et al., 2012), which shows that the influence of founders and managers is not necessarily the same at different phases of new venture evolution. These arguments suggest that we should look at how a new venture evolves over time as an organizational archetype (rather than focusing on the entrepreneur), but at the same time we should not constrain ourselves by taking a given archetype as a point of departure. At new venture formation, an interpretive scheme or a system of structures does not yet exist.

For our purpose, we adapt the framing of archetypes to suit the context of new ventures. The interpretive scheme of an organization is the set of beliefs and values embedded in the organization (Greenwood & Hinings, 1993), which dictate the way the firm will create value for customers. We take the interpretive scheme of the new venture to be the business model it develops over time. Further, we use a resource perspective to define the set of systems and structures to support the business model. The structuring of resources is often put forward as the first step in developing capabilities, structures and systems within the organization (Sirmon et al., 2007). We regard resource configurations as bundles of resources, which co-evolve as configurations with the new venture’s business model in the emerging reality of the environment. As such our purpose is to answer the following research question: how does a new venture develop over time the organizational archetype, which both fits the emerging environment and will be the basis for its perceived success?

**METHODS**

This research is based on an ethnographic study of a new venture in the emerging mobile Internet industry and combines participant observation with grounded-theory building. Absent...
theory on the micro-processes behind the evolution of new ventures, we argue this approach is the most appropriate (Corbin & Strauss, 2008; Locke, 2001).

Research Setting

We chose the mobile Internet industry as our research context, as in 2007 this industry was a nascent market according to the definition of Santos & Eisenhardt (2009). At that time, the mobile Internet market was still in an early stage of development, experiencing huge ambiguity regarding product definitions and industry structure. Uncertainty existed about the appropriate business model to apply since users did not want to pay a premium for mobile content. Within that market, we chose to follow We❤Mobile (a pseudonym), the first company in Belgium entering the mobile Internet and mCommerce space. We start our investigation of We❤Mobile in the beginning of 2007, when a professor in software engineering (one of the subsequent founders of We❤Mobile) developed a prototype technology that could automatically transcode desktop-content to any type of mobile device. In July 2007 a first pilot project was successfully launched and paid for by a lead user-customer, which lead to the official founding of the company in December 2007. In May 2008, the initial success of the company triggered the interest of the three main VC funds active in Belgium. We❤Mobile developed a business plan in which it defined its target customers as large web agencies, which have to make mobile solutions for their early adopter clients. In March 2009 an A-round investment of 4 million Euros was closed to grow further along the lines of the agreed business model and expand it internationally. However in mid-2009, soon after the VC investment, the mobile industry (and users) began to favor apps, downloaded directly from a platform, over server based mobile websites. As a response, We❤Mobile considered a change in its strategic direction, by focusing marketing efforts on a lower-end customer segment and adapting its technology to a more simple, user-centric development tool. At the end of 2009 We❤Mobile offered a simple and user-friendly development tool to small web agencies and generated revenues through lower price licenses. This latter business model ultimately proved to be the key to success in the market for We❤Mobile and other companies in the mCommerce space. We terminated the relevant period of data collection in mid-2010, when the latter business model was implemented.

Data Sources

Data collection followed common recommendations for ethnographic work (Van Maanen, 1979), and combined participant observation, archival public and private data, formal semi-structured interviews and informal talks. The first author attended the weekly management, the biweekly communication forum introduced from January 2009 on, the formal board of director (BoD) meetings after venture capital investment in March 2009 and many informal events. The participant observation method captures managers in their corporate reality, time, and space, which gives it a major advantage over other data collection techniques such as interviews (Burawoy, 1991). The time frame covered in this paper ranges from July 2007 (first customer) to June 2010 (trade sale) and the time spent averaged about 1 day per week. We employed an insider-outsider approach, which means that two outside researchers were involved in the analysis of the data so that the credibility of the findings would not rely solely on the interpretations of a single analyst (Gioia et al., 2010). We had access to the company’s private archives, covering nearly every important document circulated during the company’s existence. Finally, we conducted 14 interviews to familiarize ourselves with the organizational context and complement our insights from the participant observation.
Data Analysis

Step 1. Tracing the process of organizational adaptation. In the early stage of analysis, we combined participant observation notes with interviews and company documents, to reconstruct the history of We ♥ Mobile. Since, as noted above, there was no written business plan in the first period, we had to rely on conversations about the technology, participant observation notes in management meetings and contractual agreements with the customers to reconstruct the emerging archetype. After VC investment, we used our participant observation notes from the monthly board meetings and weekly management meetings in combination with formal presentations about the new value proposition and business model to make sense of the business model changes.

Step 2. Tracing the micro processes of archetype development (business model and resource structuring). In the second step of the analysis, two of the authors engaged in open coding of the available data (Locke, 2001). Following multiple discussions and re-readings of the data, they gradually combined in vivo codes into first order categories (Locke, 2001). To ensure reliability and common understanding with the third author, first order codes were labeled in line with the different components of a business model and different resources categories. In a further round of coding, we tentatively combined first order categories into fewer, theoretically grounded second-order categories using a process similar to Strauss and Corbin’s notion of axial coding (Strauss & Corbin, 1990: 123). In this exercise we cross checked the second order categories with the literature on organizational adaptation to avoid ignoring theoretically relevant knowledge (Suddaby, 2006). Where appropriate, we used Nvivo, a qualitative data analysis program, to support our axial coding process. Following past research adopting a similar analytical approach, we present the resulting data structure in figure 1 (Gioia et al., 2012).

Step 3. Building a grounded theoretical framework. As core categories emerged from our first order codes, we further used principles of axial coding to uncover relations between micro-processes of archetype development (Gioia et al., 2012: 8). The observation that the micro-processes were different before and after venture capital investment led us to organize our emerging interpretations into a multi-phase process model. We developed a story line described by Strauss & Corbin (1990) as selective coding. This story line developed into a grounded model of how new ventures evolve and adapt to changing environmental conditions over time. We present our grounded model in the next section.

Findings

During the period of observation, two fundamentally different phases could be distinguished in the evolution of We ♥ Mobile, labeled “experimental adaptation” and “structural adaptation.” The demarcation moment between the two phases was the series-A round venture capital investment in the firm, which included a staged investment plan based upon the business model and resource deployment forecast as developed in the business plan. Below we describe the two different phases by intertwining a detailed narrative of our ethnographic observations with theoretical insights generated by interviews and a detailed analysis of the different documents to which we had access (Eisenhardt & Graebner, 2007).

Phase 1: Experimental Adaptation (July 2007 – March 2009)

From July 2007 to November 2009, the company engaged in short-term experiments to find out how to create value for customers and earn recurring revenues. The company engaged in a
process of “business model learning”. In the next paragraphs we explain the underlying micro-processes (or first order codes) of business model learning and the resource structuring practices accompanying the business model learning phase. We bundle these resource structuring practices under the heading “resource relaxation” as flexibility was built into the resource configuration by managing the resources in such a way that they stayed fungible. Selected quotes and other data supporting our emerging interpretation are displayed in table 1.

Business Model Learning

1. ‘Experiential learning through focused commitment’ on technology architecture. Throughout the experimentation phase, We❤Mobile offered a core technology, which it easily adapted to each customer served by building features around the stable core module that could be adjusted to both customer demands and the new technological insights that emerged in the industry. The company engaged in focused commitment to a core technology (Andries et al., 2012), which allowed for increasing efficiency through capitalizing on experiential learning effects, without having to compromise on adaptability. In the experimentation phase, focused commitment to a proprietary core combined with easily adjustable peripheral features enabled adaptation to changing customer needs.

2. ‘In-market testing’ to learn from customers. Through selling the core technology in customized projects, the company collected vast user feedback, facilitating learning from customers. The initial product did not match the quality criteria used in larger companies. Nevertheless, the company decided to bring the core technology to market rather than developing it further in-house to learn directly from customers about their needs and wishes. The importance of customers as a source of learning for improving the value proposition of an entrepreneurial venture is well recognized (Coviello & Joseph, 2012; Ries, 2011). The major advantage of this learning method is that the company optimizes its value proposition by adapting it to customer demand while tolerating failure. Since failure often only implies a small financial loss, the benefits from learning from feedback outweigh the costs of failure.

3. ‘Simultaneous trial and error learning’ in different market segments. The company did not focus on a single market segment from the start. Instead, different market segments were approached simultaneously. For instance, We❤Mobile both invested downstream and upstream the value chain by undertaking projects for end customers on one hand, and by setting up projects with operators who create portals for their customers on the other hand. That is, it simultaneously experimented with a B-to-C and a B-to-B model. Targeting diverging market segments simultaneously was instrumental in addressing uncertainty. This approach enabled trial and error learning about evolving market conditions and flexibility if a certain market segment turned out to be unsuitable.

4. ‘Vicarious learning’ through the adoption of contemporary industry practices. The market approach and revenue model used at We❤Mobile coincided with then common practices in software. For instance, B-to-C customers were approached with a consulting model and were charged a hosting fee to run the service. B-to-B customers were approached with a training model, teaching them to make their own websites, and were also charged a hosting fee to run the service. Through observation, We❤Mobile gathered information about the market approach and revenue model of other players in the industry and subsequently imitated seemingly successful practices. As such We❤Mobile engaged in vicarious learning, a common indirect learning process when environmental uncertainty is high in new industries (Baum et al., 2000; Kalnins et al. 2006). We❤Mobile used vicarious learning to cope with uncertainty regarding market approach and revenue models in its adaptation process as the industry further evolved.
Resource Relaxation

The resource structuring process going hand in hand with the process of business model learning is characterized by an unconstrained management process of fungible resources. During the first phase, the founders continuously allocated different resources to different purposes and easily altered the resource base to fit the changing environment. They kept the resources fungible so they could be used for multiple purposes and could optimize learning experiences. We refer to this management process as “resource relaxation” and explain how it takes place for each of the resource categories.

1. Human resources: generic competences and contingency workers to optimize flexibility. With regard to the human resources, we observed a high degree of floating individual task descriptions. Engineers changed tasks all the time and took on different roles in the company. They switched easily from high tech development tasks to the creation of a user-friendly interface or technical sales support. Until mid-2008, nobody had a fixed task description. The company’s core team only consisted of the two founders and the three core software engineers. The founders could very easily make use of contingency workers and freelancers with specialized knowledge to complement the core team and account for flexibility within the composition of the team in order to buffer variability in demand and meet specific requirements of customers.

2. Financial resources: flexibility through bootstrapping as a source of finance complemented with “soft money”. Financial resources consisted of a mix of founders’ capital, reinvested earnings and an incubator grant to which no constraints were attached. The absence of external financial stakeholders and the fungible nature of the company’s financial mix enabled the unconstrained allocation of financial resources to different activities. Contemporary entrepreneurship literature has highlighted the use of bootstrapping financing methods to increase financial flexibility among founders (Grischnick et al., 2013). Also grants and soft money have traditionally been recognized as flexible sources of finance.

3. Technological resources: easy access to multipurpose technology. The technological resources were easily accessed and could be autonomously altered as well. The technology platform was built with software components licensed from the parent research Institute, a large number of reusable modules and software components developed by the software engineering team and a number of leading open source packages such as Apache CoCoon. All components were fungible in nature as they could be easily used and re-used for different purposes without having to renegotiate complex license agreements. The use of open source technology components and cheap licenses enabled the company to adjust its offer to customer needs in due time. Speeding up the technology development process has been referred to as the primary reason for companies to engage in open source projects (Lorenzi and Rossi, 2007). Since a large community of researchers contributes to the open source process, the development cycle is significantly shortened.

4. Social resources: network bricolage. Finally, the company could make use of elaborated (broad and deep) personal networks of the founders. Both founders had contacts in the B-to-C as well as in the B-to-B market, which facilitated penetration in different levels of the value chain, and were closely linked to a University and Research Institute, enabling easy access to specialized knowledge and experts in the domain. These personal networks allowed the company to obtain specific information, not widely known to outsiders, and learn about best practices. This helped the company determine which established practices were appropriate and which were not. This form of resource structuring through pre-existing contact networks has been labeled network bricolage (Baker et al., 2004).
Archetype Legitimacy

At the end of phase 1 (March 2009), We❤Mobile was break-even and had attracted press coverage as a high potential company in mobile Internet. Its eventual business model consisted of an MSP (Manage Service Provider) Partner model. We❤Mobile had set up partnerships with two of the top-5 web development agencies in the country. The company attracted the attention of three leading venture capital funds in Belgium. Subsequently, a business plan was developed based on the MSP business model to secure a series-A round funding of 4 million Euros in order to upscale the business model to an international context. The business plan incorporated the business model outlined above and the resource deployment plan that was needed in order to upscale the business model in Belgium and roll it out internationally. Because the company was profitable and the press had covered it as one of the high potential start-ups in the country, the business model and the ideal resource configuration needed to support the business model had considerable legitimacy among the different stakeholders: a) the investment managers of the different VCs knew the founders as serial entrepreneurs and were charmed by the revenues generated by the company and b) the founders as key stakeholders were positively influenced by the web development agencies they had as trade partners and finally. At this stage, we suggest that the company archetype had received enough “legitimacy” among the different stakeholders to determine their decision to commit their resources (financial, human, social) to the company (Lounsbury & Glynn, 2001; Suchman, 2005; Cornelissen & Clarke, 2010).

Phase 2: Structural Adaptation (April 2009 – October 2010)

After the shareholders agreement was signed and the initial investments were made, the company was bounded to predetermined policies, which could not be easily reconfigured from their original intent (Bradley et al., 2011). However, in a nascent market, where business models at industry level are not yet clear (Santos & Eisenhardt, 2009), it is unlikely that the business model in which VCs have invested will be the one that leads to a successful exit for these investors. The same applies for We❤Mobile. After the launch of the “App Store” on July 10 2008 end customers who made use of We❤Mobile’s transcoding solution, increasingly started to switch towards the development of Apps. This changed environmental setting forced We❤Mobile to adapt its legitimate archetype. However, at this stage the process of experimental adaptation seen in phase 1 is no longer possible. Instead, We❤Mobile engaged in an adaptation process we refer to as ‘structural adaptation’. In the next paragraphs, we again discuss the different micro-processes behind structural adaptation of the archetype, as they emerged from our open and axial coding analysis. Selected quotes and other forms of data are displayed in table 2.

Business Model Transformation

1. Business model de-legitimation. We❤Mobile’s stakeholders had familiarized and committed themselves with the MSP business model and had underwritten the resource deployment plan to support that business model. As the environment clearly changed in favor of apps, We❤Mobile’s management (CEO and COO) undertook a number of actions to delegitimize the legitimate business model. Over a period of almost twelve months (starting at the Board of Director meeting of 11 May 2009), the CEO consistently used examples of both “threat based” and “opportunity based” performance gaps (Gilbert, 2006). Threat based performance gaps refer to (a) not being able to close the amount of partnerships with web developing agencies as initially forecasted in the business plan; (b) not being able to realize the forecasted licensing income per partner as described in the milestones and (c) an increasing discrepancy between qualified leads, which are companies
that showed an interest in a mobile solution and the number of closed deals, being the companies that effectively had subscribed to We❤Mobile’s solution.

2. Prospective sense giving to the new business model. The business model adaptation process is characterized by a strategic change process of sense giving through which the management of the company convinced the decision makers in the board of directors of the new direction to take. The extant literature on strategic change has emphasized sense-making and sense-giving as important processes in changing the interpretive scheme of large organizations (Gioia at al., 2010). To give sense to the new business model the management made use of linguistic approaches (in the form of analogies and metaphors) and material artifacts (Stigliani & Ravasi, 2012).

- Use of analogies to change technical architecture and embedded features. An analogy was made to a successful company located in Canada, Mobi.me (a pseudonym) to “sell” the idea of a more user-friendly technical architecture to the Board members and receive permission to build a technical prototype. The use of analogies and visual illustrations is common in sense-giving processes (Kaplan, 2011; Cornelissen & Clarke, 2010).

- Use of material practices to motivate the change in targeted customer segment and market approach. By October 15, a Beta version was launched with the specific aim of collecting data about the users downloading this (free) version and to generate potential key performance indicators understandable for the investment managers. The launch of a low cost prototype on the market helped to give sense to the investment managers, who were not familiar with digital marketing or small budget customers.

- Use of expert witnesses to motivate the business opportunity. Upon request of the president of the Board, a London-based expert was invited to present the business model changes and to position himself as a potential future CEO. The investment managers on the Board were afraid that the current founder-CEO had lost too much legitimacy as a person among their investors as his original business model idea had failed. Hence, a new potential CEO would increase the credibility of the business model changes.

- Use of contextualized material practices to give sense to the revenue model. A demo of a mCommerce application was developed to which the members of the investment committee would be familiar, in collaboration with a well-known bakery. The investment committee members could order sandwiches using their mobile device and have them delivered by the end of the presentation. The use of contextualized material practices has been put forward in the literature as adequate sense-giving tools to increase the legitimacy of technology entrepreneurs (Baker et al., 2004; Cornelissen & Clarke, 2010).

Resource Ambidexterity

The development of the new business model put a lot of pressure on the resource configuration in place as two competing frames now co-existed in the company (old and new business model). During the change process, resources had to serve dual purposes represented by the two competing frames. The way in which such resources can be managed has been touched upon in the ambidexterity literature (Gibson & Birkinshaw, 2004; O’Reilly & Tushman, 2004). In line with this literature, we label the process of managing resources for dual purposes resource ambidexterity. The micro processes behind this process for each type of resource are described below.

1. Human resources: balancing time between two competing frames. The engineers had to keep their focus on the initial value proposition while spending a percentage of their time developing the prototype. Gradually, the time spent on the new business model was formally managed and the different employees were allocated a few hours per week to spend on the development of a prototype and gather market feedback. This has been described in the ambidexterity literature as
contextual ambidexterity (Gibson & Birkinshaw, 2004). However, after the board of 24 February 2010, the company dedicated a specific team to develop the new business model and move the entire company in that direction. So, a structural division was established between people full time allocated to the old frame and those allocated full time to the new frame. This resembles what O’Reilly and Tushman (2004) have called structural ambidexterity.

2. **Financial resources: differentiate according to source of finance to exploit slack.** To finance the development of the new business model, We ♥ Mobile made a clear distinction between two sources of finance: money allocated to the company through the VC agreement and the operational cash flow and money the company raised through R&D and innovation grants from the local government and the EC. Hence, the allocation of financial resources to two competing frames was initially managed by dividing the financial resources according to the degree of discretionary slack. The one with the highest amount of slack was used to explore the new business model and initiate the change process. The positive impact of financial slack has been shown in the extant literature, both on process of organizational change (Kraatz & Zajac, 2001) and frame breaking innovation (Nohria & Gulati, 1996), especially if the environmental change is perceived as a threat (Voss et al., 2008).

3. **Technological resources: managing technological specialization and user orientation.** The company made the account manager (AM) responsible for the engineering roadmap of the new model. He bundled the skills of the engineers taking a user centric approach. Regarding the old business model, the CEO continued to determine the engineering work along the trajectories in the technological roadmap. This duality was managed through a matrix structure where technology is organized along functional specializations for the old business model and the assignment of a product manager to lead the development of the technology behind the new business model.

4. **Social resources: manage exploration and exploitation.** After venture capital investment, the company had developed a network of key web development agencies, which were its key partners. Along the lines of the old business model, the company professionalized its account management model and investigated how it could increase both revenues and profit per account (=partner). This is obviously focused on “exploiting” the alliance. At the same time however, the trust in these relations allowed the new business model to be “explored”. Although the web development agency would no longer be a key partner in the new business model, the employees of the web development agencies were typically individuals used to developing websites and well integrated into the community of web developers and thus a relevant user group to test the ideas of the new business model.

**Discussion and Conclusions**

Our study of how We ♥ Mobile developed a viable organizational archetype helped produce a fine-grained account of the micro-processes behind archetype adaptation towards unfolding environmental conditions in a nascent market. Although a linear sequence of the two phases is assumed in the evolution of new ventures, it is possible that some companies do not go through both phases or have multiple iterations between the phases. In what follows, we discuss the theoretical implications of our observations with regard to understanding how archetypes adapt to unfolding environmental conditions.

**Extending Theories of Organizational Evolution**

The organizational evolution literature has typically suggested two mechanisms of adaptation for new ventures: one group of scholars emphasizes the importance of inductive processes in the
early phases of new venture evolution (Cornelissen & Clarke, 2010), while another group of scholars use theories of organizational evolution as a point of departure and highlight the importance of overcoming inertia in facilitating change and new venture evolution (Gersick, 1996; Gilbert, 2006; Ambos & Birkinshaw, 2010). We introduce the concept of archetype legitimacy to shed further light on this apparent paradox. Before an entrepreneurial venture has obtained archetype legitimacy from different stakeholders, we argue that experimental forms of adaptation are predominant. However, once different stakeholders have bought into a specific archetype, organizational change processes prevail over entrepreneurial processes of experimental adaptation. These organizational change processes are very similar to processes of strategic change, which have been studied in large organizations (Siggelkow, 2001; 2002), but also exhibit differences. For instance, the sense-breaking process of de-legitimating the old business model and legitimating the new one puts considerable pressure on the resource configuration in place and implies that resources will need to be used for dual purposes. This is a process of structural adaptation, which we have called ‘resource ambidexterity’.

Extending Theories of Inductive Reasoning

Within the entrepreneurship field, theories of inductive reasoning such as effectuation, bricolage and improvisation have become predominant ways of thinking on how entrepreneurs identify opportunities and turn them into viable businesses (Sarasvathy, 2001; Baker & Nelson, 2005; Cornelissen & Clarke, 2010). However, they tend to identify the “entrepreneur” with the “venture”. If an entrepreneur makes a decision to go for an emerging opportunity it is assumed this immediately translates into venture adaptation. We extend these theories by introducing the concept of an organizational “archetype” as a relevant unit of analysis. By doing so, we introduce an integrated theoretical approach, which includes both the business model of a venture, representing its interpretive scheme, and the resource configuration. We show that entrepreneurs need to keep their resources fungible in order to be able to jump into new opportunities.

Extending Theories of Strategic Change

In the phase after archetype legitimacy, more traditional theories of strategic change become prevalent, which typically focus on large organizations (Siggelkow, 2001; 2002). We extend these theories by analyzing how they can take place in new ventures that are resource constrained. More specifically, we show that processes of prospective sense-giving are needed to legitimate the new business model, while the old business model is still in place and gradually needs to be de-legitimated. This implies that the new venture has competing frames during a significant period of time. Since, a resource-constrained organization does not have the critical mass to split its activities in different structures, different forms of resource management are needed. This is a process we have labeled “resource ambidexterity”. We extend the traditional ambidexterity view by showing that not only human resources but also financial, technological and social resources need to be managed for dual purposes. Hence, all components have to fit together to support the process of structural adaptation.

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### TABLE 1
Data Construct Table Phase 1

<table>
<thead>
<tr>
<th>2nd-Order Codes</th>
<th>1st-Order Codes</th>
<th>Representative Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience learning through focused commitment to technology architecture</td>
<td>The sales presentations (SP) and tenders illustrate a customized product offer, individually adapted to each customer request such as a mobile check-in and seat selection feature for airline companies, a mobile payment system for financial banks, a mobile portal for operators and media companies and a mobile reservation system for transport companies [Sales presentations prepared for KLM, KBC, Telenet and Proximus].</td>
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<tr>
<td>&quot;If we get to know about an interesting feature on a technology fair we try to develop it upfront and incorporate it in our product offer [...]. However, most of the times it is the customer himself who asks about a specific feature, such as a mobile payment system, and we just have to find a way to implement it to our standard offer in time [...]. The good thing is that we can offer these extra features to other customers as well and in this way extend our value proposition.&quot; [Founder1 during interview dated 16 Nov 2007]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-market testing to learn from customers</td>
<td>&quot;When doing consulting activities we became aware that customers valued other parts in our service than those that were emphasized during the sales process, such as usability and cooperation with existing suppliers. Customers explicitly regarded compatibility with their traditional web developers as instrumental.&quot; [SWE1 during interview dated 10 Oct 2007]</td>
<td></td>
</tr>
</tbody>
</table>
| - Huge demand for template approach  
- We need more promotion activities before visiting such a huge fair  
- Movie about We♥Mobile technology is not clear" [Excerpt from ‘take-away doc’ after visiting Cebit dated 5 Jan 2008] | |
| Business model LEARNING | The projected and realized sales pipelines give an overview of the targeted and closed deals during 2007 and 2008 and illustrate that customers are targeted in different market segments, sectors and positions in the value chain at the same time: |

<table>
<thead>
<tr>
<th>Name</th>
<th>Value chain position</th>
<th>Market segment</th>
<th>Date of first customer contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immo Rosseels</td>
<td>B2C</td>
<td>Real estate</td>
<td>Jan 2008</td>
</tr>
<tr>
<td>KLM</td>
<td>B2C</td>
<td>Airline</td>
<td>Dec 2007</td>
</tr>
<tr>
<td>De Persgroep</td>
<td>B2C</td>
<td>Multimedia</td>
<td>May 2008</td>
</tr>
<tr>
<td>Telenet</td>
<td>B2B</td>
<td>Telecom</td>
<td>March 2008</td>
</tr>
<tr>
<td>KBC</td>
<td>B2C</td>
<td>Financial</td>
<td>July 2008</td>
</tr>
</tbody>
</table>

[Source: Salespipeline09/06/2008.doc]  
| Vicious learning through the adoption of contemporary industry practices | "We know the standard prices that are charged for web design in different geographical and industrial sectors, as such we are basically just adopting the pricing mechanism that is accepted in the software industry." [Founder1 during interview dated 16 November 2007] | |
| "We adopted an open source dual license model after Dries Buytaert explained us in detail how much interest government organizations showed for this. We copied the major parts of his model." [Founder2 during interview dated 8 Feb 2008] | |
| "In the beginning we experimented with an open source model. However, this was abandoned when customers started questioning why they would pay a license for something that is widely available on the Internet." [Founder2 during interview dated 3 May 2008] | |
## TABLE 2
Data Construct Table Phase 2

<table>
<thead>
<tr>
<th>Business model Transformation</th>
<th>Representative data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional sense giving to the new business model</td>
<td>Use of analogies to change technical architecture and embedded features:</td>
</tr>
<tr>
<td></td>
<td>“Ask AM1 to develop a prototype compatible with an open CMS (Drupal) comparable to Mobi.me in order to explain Mobi.me’s value proposition and collect feedback from web designers within a timeframe of 6 weeks.” [BoD meeting dated 27 July 2009]</td>
</tr>
<tr>
<td></td>
<td>Use of material practices to motivate the change in targeted customer segment and market approach:</td>
</tr>
<tr>
<td></td>
<td>“The success of the first launch of the Beta version will determine our further strategy. However we should take into account that it will not necessarily be possible to translate ‘success’ in sales, other KPIs should be used to determine the next steps.” [CEO during BoD meeting dated 28 Sept 2009]</td>
</tr>
<tr>
<td></td>
<td>“The Beta version is released via e-mail on the 15th of October, 4 days later we already have 12 registered users. The website is online from the 12th of October and already has 446 visitors after 4 days, of which 176 unique visitors” [BoD meeting dated 19 Okt 2009]</td>
</tr>
<tr>
<td></td>
<td>“We have over 8000 visitors to the free versions leading to 1200 mobile websites and 7 paying premium sites. The premium statistics should not be interpreted as real adoption rates since we do not offer a premium version as of today, rather they reflect the current mood in the market. The premium users are users by accident.” [BoD meeting dated 22 Feb 2010]</td>
</tr>
<tr>
<td></td>
<td>Use of expert witnesses to motivate the business opportunity</td>
</tr>
<tr>
<td></td>
<td>“We need an independent expert as potential CEO to confirm the validity of the proposed changes.” [BoD meeting dated 22 Feb 2010]</td>
</tr>
<tr>
<td></td>
<td>“[London-based expert] is convincing but not committed, there should be a letter of intent by April 22 to gain the trust of our investment committee.” [Investment Manager] during BoD meeting dated 2 April 2010]</td>
</tr>
<tr>
<td></td>
<td>Use of contextualized practices to give sense to the revenue model</td>
</tr>
<tr>
<td></td>
<td>“The revenue model for the m-Commerce case is still not very clear to me. You should provide us with some showcases to present the business idea in a convincing way.” [Investment manager1 during BoD meeting dated 22 Feb 2010]</td>
</tr>
</tbody>
</table>

| Threat-based performance gaps: | “We are only obtaining short term revenues, margins are under pressure and the cost of sales are very high. There is a market downturn and the pipeline slows down (delays...) We are no longer considered the leading mobile web agent but a technical subcontractor: three options to generate revenues: (1) Projects (2) Hosting (3) Instant Mobilizer compatible with OSS CMS (Drupal)” [Excerpt from BoD meeting minutes dated 27 July 2009] |
|                              | “Unfortunately, we lost some deals because Panoptic [partner] has decided not to present our technology anymore. We suspect they will develop the mobile website using an application toolkit.” [BoD meeting dated 11 May 2009] |
|                              | Each BoD meeting report illustrates the actuals vs forecasts from May 2009 – April 2010 (in terms of partnerships closed and licensing income/partner). The actuals only exceed the forecasts in July 2009. |
| Discrepancy-based performance gaps: | The BoD meeting of August 2009 highlights that although the number of negotiated leads has increased with 5% in the last three months, the number of closed leads has decreased with 25%. [BoD meeting dated 31 Aug 2009] |

### Footnotes

http://digitalknowledge.babson.edu/fer/vol33/iss11/1

Posted at Digital Knowledge at Babson
FIGURE 1
Data structure

<table>
<thead>
<tr>
<th>Micro business model constructs (2nd-order codes)</th>
<th>Aggregate business model enabler (1st-order codes)</th>
<th>Aggregate resource enabler (1st-order codes)</th>
<th>Micro resource enablers (2nd-order codes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiential learning through focused commitment on technology architecture</td>
<td>Business model LEARNING</td>
<td>Resource RELAXATION</td>
<td>Generic competences and contingency workers to optimize flexibility</td>
</tr>
<tr>
<td>In-market testing to learn from customers</td>
<td></td>
<td></td>
<td>Flexibility through bootstrapping as a source of finance complemented with soft money</td>
</tr>
<tr>
<td>Simultaneous trial and error learning in different market segments</td>
<td></td>
<td></td>
<td>Easy access to multipurpose technology</td>
</tr>
<tr>
<td>Vicarious learning through the adoption of contemporary industry practices</td>
<td>Business model TRANSFORMATION</td>
<td>Resource AMBIDEXTERITY</td>
<td>Network bricolage</td>
</tr>
</tbody>
</table>

ARCHETYPE LEGITIMACY

| Business model de-legitimation | | | Balancing time between two competing frames |
| Prospective sense giving to the new business model | Business model TRANSFORMATION | | Differentiate according to source of finance to exploit slack |
| Use of analogies to change technical architecture and embedded features | Resource AMBIDEXTERITY | | Managing technological specialization and user orientation |
| Use of material practices to motivate the change in targeted customer segment and market approach | | | Managing exploration and exploitation |
| Use of expert witnesses to motivate the business opportunity | | | |
| Use of contextualized material practices to give sense to the revenue model | | | |