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Organizational Aspects of Business Model Innovation: The Case of the European Postal Industry

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Abstract

Adopting alternative business models is one way for mature businesses to generate new growth. Several studies have addressed some of the organizational barriers that incumbents face when developing such new business models, but our understanding of the organizational (re)design aspects inherent to business model innovation is still very incomplete. In this study, we investigate the organizational design challenges for incumbent organizations in mature industries when they need to reinvent their business model in reaction to disruptive changes in their environment. Our empirical setting focuses on national postal operators in the European postal industry. Using an inductive study of three such operators, we distinguish between two stages within business model innovation: namely, business model exploration and business model exploitation. Focusing on the former, our findings shed new light on the existence of four key organizational issues: (1) organizational conflicts for scarce resources, (2) cognitive limitations in the face of a persistent dominant logic, (3) organizational (re)design issues focused on structure, and (4) the sourcing and development of new capabilities. These four areas of organizational study have not received much attention yet in the growing literature on business model innovation and represent opportunities for further developing the literature.

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ABSTRACT

Adopting alternative business models is one way for mature businesses to generate new growth. Several studies have addressed some of the organizational barriers that incumbents face when developing such new business models, but our understanding of the organizational (re)design aspects inherent to business model innovation is still very incomplete. In this study, we investigate the organizational design challenges for incumbent organizations in mature industries when they need to reinvent their business model in reaction to disruptive changes in their environment. Our empirical setting focuses on national postal operators in the European postal industry. Using an inductive study of three such operators, we distinguish between two stages within business model innovation: namely, business model exploration and business model exploitation. Focusing on the former, our findings shed new light on the existence of four key organizational issues: (1) organizational conflicts for scarce resources, (2) cognitive limitations in the face of a persistent dominant logic, (3) organizational (re)design issues focused on structure, and (4) the sourcing and development of new capabilities. These four areas of organizational study have not received much attention yet in the growing literature on business model innovation and represent opportunities for further developing the literature.

¹ An earlier draft of this paper was submitted to the Academy of Management Conference and is still under review

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INTRODUCTION

Business model innovation is increasingly considered an important activity for firms to remain competitive in the long run (Chesbrough & Rosenbloom, 2002; Teece, 2010). While there is an increasing amount of scholarly interest in business models and business model innovation, issues of how to organize for business model innovation are far from well understood. In particular, what issues of organizational (re)design arise when incumbent firms attempt to invent new business models? This is the question explored in this paper. There is increasing recognition in the still emerging business model literature that business models include the design of organizational structures to enact a commercial opportunity (George & Bock, 2011) and that business model innovation implies new ways to organize business (Casadesus-Masanell & Zhu, 2013). This suggests the centrality of organizational design to such innovation, but the extant literature has focused largely on the potential organizational barriers (Chesbrough, 2010), as opposed to what aspects of organizational design are critical for successful innovation.

In this paper, we explore the organizational challenges that affect incumbent organizations in mature industries, as they react to disruptive changes in their environment by seeking new business models — the logic by which organizations create and capture value (Zott, Amit, & Massa, 2011). We explore these organizational aspects of business model innovation in

the context of the European postal industry, unveiling how incumbent postal operators dealt with some of the major changes that affected their organizations over the past decade or so. The European postal industry has undergone fundamental changes that challenged national postal operators' traditional business model, especially in the mail market. The empirical base of this case is primarily drawn from a set of interviews with managers who were responsible for business model innovation in the Danish, Portuguese and Swiss posts for over a decade. These national postal operators all found it necessary to proactively embrace the disruptive changes in the industry by reinventing the fundamental logic of how they create and capture value. In all three cases, this involved venturing into the digital world, which led to a series of organizational issues that we highlight in this paper.

A key finding from our study is the necessity to distinguish two stages within business model innovation, namely business model exploration and business model exploitation. We deliberately use similar labels for these two stages as those used by March (1991) to describe two different types of organizational learning, to hint that two distinct types of learning are associated with the two identified stages of business model innovation (Sosna, Trevinyo-Rodriguez & Velamuri, 2010). We posit that each of the stages is associated with specific sets of organizational issues. Our paper specifically focuses on business model exploration, and we find that the key organizational issues in this context are (1) organizational conflicts for scarce resources, (2) cognitive limitations in the face of a persistent dominant logic, (3) organizational (re)design focused on structure, and (4) the sourcing and development of new capabilities. These issues point towards the key areas that deserve further study in order to fill gaps in the body of knowledge about business model innovation.

BUSINESS MODEL INNOVATION: AN ORGANIZATIONAL PERSPECTIVE

The literature on business models shows that a multitude of understandings and definitions of the concept exist (e.g., Osterwalder, Pigneur, & Tucci, 2005; Zott et al., 2011). There appears, however, to be a general consensus that a business model explains the logic with which an organization creates, delivers, and captures value (e.g., Chesbrough & Rosenbloom, 2002; Osterwalder & Pigneur, 2010; Teece, 2010; Zott, Amit, and Massa, 2011). More specifically the business model also refers to the linkages between the organizational units that perform key activities as well as with external stakeholders in the firm's attempt to create, deliver, and capture this value (Santos, Spector, & van der Heyden, 2009; Stieglitz & Foss, 2009; Zott et al., 2011).

What exactly differentiates the business model concept from other concepts such as the activity system (Zott & Amit, 2010), or the value chain and network (Porter, 1985), is still the matter of some debate. Casadesus-Masanell and Zhu (2013) describe business model innovation as “new ways to organize business”, an innovation type distinct from new products, production processes, sources of supply, and markets. Casadesus-Masanell and Zhu further describe business model innovation as “the search for new logics of the firm and new ways to create and capture value for its stakeholders”, focusing primarily on “finding new ways to generate revenues and define value propositions for customers, suppliers, and partners” (2013:464). This suggests on the one hand the dynamic nature of business model innovation, and on the other that an important concept differentiator may be the recognition of the organizational aspect of the business model. However, it is far from all definitions that have recognized the organizational dimension of business model innovation, let alone explored it.

From an organizational perspective, defining a business model implies collaborating within and even across organizational units. In the words of George and Bock (2011: 99), “a business model is the design of organizational structures to enact a commercial opportunity.” Business model innovation thus implies a new way to organize business (Casadesus-Masanell & Zhu, 2013). Changing elements of a business model therefore also necessarily implies some degree of organizational change (Santos, Spector, & van der Heyden, 2009).

A few organizational themes surrounding this type of innovation have been discussed in the literature, but most aspects of “organizing” and of organizational design have been largely ignored so far. One explored theme is the role of organizational barriers or enablers to business model innovation. It has thus been suggested that social capital can facilitate business model innovation (Spector, 2013). In terms of barriers, it has been shown that competitive-type conflicts between existing and new technologies typically make it difficult for established firms to develop new business models that conflict with existing ones (Amit & Zott, 2001; Christensen, 1997). A further barrier is the existence of a dominant logic within the firm which can prevent management from cognitively appreciating the potential of a new business model (Chesbrough & Rosenbloom, 2002). Besides enablers and barriers, it has been suggested that organizational learning is an important organizational process accompanying business model innovation, typically involving trial-and-error (Sosna et al., 2010). The literature on the organizational aspects of business model innovation thus remains incomplete.

CASE STUDY APPROACH: DATA COLLECTION AND ANALYSIS

To better understand the organizational issues surrounding business model innovation in the European postal industry, we adopted a qualitative case study approach with multiple postal operators as embedded cases (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 2003). For the present paper, we selected the Danish, Portuguese and Swiss postal operators, which have all made efforts at creating new business models over the past decade or so, similarly to many other national postal operators. We chose these operators primarily because (1) they have all experimented with business model innovation, (2) the managers responsible for the business units involved in these experiments are conveniently all still in position and thus available as informants, (3) we have ensured a geographical spread, and (4) they do not directly compete with each other. Having three embedded cases enabled a form of triangulation within the larger case. The main empirical base consists of a set of interviews, which we conducted during the summer of 2012, with the main managers responsible for the business units involved in the business model innovation efforts in each of the operators. All of the interviewees have been in their positions during all or most of the period during which these efforts took place. The similar inputs from these three independent sources of information enabled us to report consistent results across the cases (literal replication) and predict contrasting results for predictable reasons (theoretical replication). These results should increase the external validity of our study (Yin, 2003). Further triangulation was achieved through the use of written sources of secondary data, such as industry and yearly reports.

In order to ensure construct validity, we used a general structure of questions and

framework to investigate and subsequently analyze the different themes related to how they dealt with some of the major changes that affected their organizations. The initial interview guideline consisted of the following categories of questions: Example(s) of business model innovation (successfully implemented); Business model components (extant, novel); Relation to existing sources of revenue (substitute, complement); Relation to the organization's activities (core, peripheral); Impact in relation to key capabilities (enhancing, destroying).

The interviews were semi-structured and specifically aimed at exploring the organizational themes surrounding their efforts. The interviews were recorded and transcribed, and the authors independently analyzed the content of transcriptions and listened to the recordings, in order to characterize and classify the themes. This thematic analysis was theory-led, in the sense that we did not aim to create new labels for the identified themes, but rather to identify relevant labels within the extant organizational theory literature. To support our analysis, we constructed a resource-activity-revenue value-structure comparison from the examples of business model innovations (cf. Figure 3 and Table 1).

In this inductive analysis, we worked iteratively to identify themes of findings from within the cases, while comparing each finding across cases as an analytic technique. We thus built on the general principles of grounded theory to construct categories of findings by developing categories of information (open coding), interconnecting the categories (selective coding), and building a story that connects the categories (axial coding), upon which the final findings are based (Dougherty, 2002; Strauss & Corbin, 1990). As such, the construction of categories — identified key organizational issues — can be seen as an iterative process that

establishes common meaning across multiple observations (Locke, 2001). In this process, we compared and discussed the categories across the three authors in order to arrive at a common interpretation and labeling. In this paper, the individual interviewees and their organizations have been made anonymous, and the categories thereby also reflect the common issues rather than the organizational issues specific to any one firm or to any one business model innovation.

FINDINGS: BUSINESS MODEL INNOVATION IN THE EUROPEAN POSTAL INDUSTRY

Case background

The European postal industry has been undergoing rapid transformation over the past two decades. The main drivers of this transformation include the growth of the Internet, which has resulted in digital substitution for many applications of letter mail. On the other hand, e-commerce has resulted in substantial growth in the parcel delivery business. Further drivers have been the gradual liberalization of the industry by national governments and the European Union alike, as well as moves towards privatization in some countries. Figure 1 illustrates some of the effects of this transformation in terms of (1) a move from physical to digital mail processing, (2) a move from private mail items towards mainly business mail items, (3) a move from monopoly power towards increased competition.

Insert Figure 1 about here

National postal operators have responded in a variety of different ways to these changes. Some have for example diversified their national business, whilst others have internationalized their activities (Dietl & Jaag, 2011). Where before these operators held national monopolies and cooperated in cross-border activities, they now compete much more directly with each other than ever before. In response to the aforementioned changes in the business environment, important strategic choices have been or are being made by individual postal operators. Most have by now thoroughly modernized their operations, and downsized their workforce in order to remain profitable despite the sharp decline in volumes (Brannström & Lindeborg, 2011). Just as importantly, posts are maintaining their grip on the letter market. There will presumably always be some level of need for the physical exchange of documents, and posts are in a good position to provide this service at a lower cost than competitors due to economies of scale, in addition to being able to offer hybrid solutions. Furthermore, many posts have experienced positive growth in the traffic of parcels. Some others have diversified into other business areas, such as finance, logistics or mobile telecommunications (Sund, 2011).

Today, the industry continues to face the challenges of digital substitution, with gradually declining physical mail volumes in all European countries (Figure 2). The recent global economic downturn only accentuated this decline and although some economies in Europe have partially recovered economically, there is no reason to believe that mail volumes, in particular for private addressed mail, will ever recover in any significant way. Having said this, some areas, such as direct mail (essentially advertisement mail) and hybrid mail may still hold potential for postal operators. Direct mail is an integral part of the media mix, and electronic commerce has contributed to a healthy development in the traffic of parcels. Increases in global trade have also

benefitted all areas of logistics, a business in which many posts are active. Hybrid mail refers to new service offerings of postal operators, where a digital file is turned into a mail item, or a mail item into a digital file — on the one hand allowing business customers to outsource the printing of documents to be mailed to the postal operator, and on the other hand offering all customers to have their mail items scanned by the postal operator. Finally, competition and digitization in financial services, along with the growth in world trade, has strengthened the competitive positioning of postal operators' that are also active in banking, finance and insurance (Sund, 2011).

Insert Figure 2 about here

Organizational aspects of business model innovation in the Danish, Portuguese and Swiss posts

The case of the postal industry is particularly salient as a context within which to explore the organizational themes that surround business model innovation. The Danish, Portuguese and Swiss posts are all organizations with histories stretching back centuries. In fact, the Portuguese Post was already established in the 1520s, the Danish post in its original form dates back to 1624 and the Swiss Post to 1675. As government agencies, all three, for many years, pursued a core business model originally advocated by Sir Rowland Hill, a 19th Century teacher, inventor and social reformer. In 1837, Rowland Hill edited a pamphlet with his plan for a “Post office reform.” The two main points were the reduced and uniform postage (the penny post), and the

payment by the sender instead of the recipient. The price of a stamp was to be uniform irrespective of distance sent within the nation's geographical boundaries. This is essentially the cornerstone of the business model that was used for both mail and parcels relatively unaltered until now.

For most of the 20th Century the three posts studied here experienced steady development in the traffic of letter mail, relatively highly correlated with general economic growth. Simply put, more industrial and service sector output led to more pieces of mail traveling through the postal system (Ansón, Cuadra, Linhares, Ronderos, & Toledano, 2006). The same was true for the telecommunication sector, which at the time was the twin sibling of the post. The 1990s saw the first major signs of change for the three operators studied. The telecommunications arms of the three companies were all divested, liberalized and privatized. The Portuguese Post (CTT) was incorporated in 1991, and the Danish Post in 1995, in an effort to prepare for liberalization. The Swiss Post followed in 1998. The expectation was that the posts should become profitable in preparation for a later possible sale by government, which pushed these posts to seek opportunities for diversification and to improve efficiency. Investments into automation became important. It was during the late 1990s, contemporary to EU Directive 97/67/EC, the first of a series that defined a new liberalized market, that all three posts we studied started exploring alternative business models. The focus appears to have been on models that embraced the observed explosion in mobile and Internet technologies, as a way to secure future business growth. In the words of one of the interviewed postal managers:

“There is a shift of paradigm... we have not only to reinvent our traditional business, because we can no longer come to you offering solutions and services only for the

physical part of the business, we have to reinvent ourselves, we have to create new *services, new sources of revenue and so on.*” (Postal Manager)

Building on the inductive case study of this industry, we found a distinction between two stages within business model innovation: namely, business model exploration and business model exploitation. The literature looking at business models offers mostly a descriptive account of entirely new (and successful) business models brought to life by entirely new organizations (e.g., Afuah & Tucci, 2001), rather than analyzing the exploratory process by which organizations with long established (and theretofore successful) business models, manage to infuse life to (entirely) new ones. This latter is the focus of this paper.

Focusing on the exploratory process of business model innovation

Much of the business model innovation literature builds on an underlying assumption that such innovation starts with an idea or technology, around which a business model is then created (Chesbrough, 2010). The idea may be generated by an entrepreneur (Gruber, MacMillan, & Thompson, 2008), by an organization (Mitchell & Coles, 2003), or through collaborative efforts between organizations (Chesbrough, 2003). A novel business model may thus accompany an existing or new product or service, aiming for example to fully realize the new product's commercial value (Zott et al, 2011), or may be aimed at creating or capturing value from a value network (Amit & Zott, 2001; Hamel, 2000). The common view therefore appears to suggest that at least some of the key elements comprised in the description of the business model, such as product, production process, sources of supply or market, are already known or pre-exist as the actual business model is generated. At least one ingredient in the new business model recipe is

known at the start of the process of business model innovation.

Our interviews suggest significantly more managerial and organizational cognitive uncertainty during the initial stages of business model innovation than is suggested in the literature. During initial stages of innovation, very little, if anything, was known or understood by the postal organizations regarding future business models. All three posts decided to explore opportunities in the digital space (examples of actual innovations that resulted from this exploration can be found in Table 1 and Figure 3), but the efforts at business model innovation in this context were driven by necessity, not by vision. Furthermore, there was no roadmap or initial idea that launched the process. In the words of one manager: “*we need to modify our business without necessarily exactly knowing how to earn money in the future.*” The three posts all proactively initiated their process of new business model exploration around the turn of the century, albeit without a clear picture of what the new end products or new services would be, who the users would be, how they would produce, or how to create or extract value. In a sense, all elements of the future business model appear to have been unknown at the beginning. This uncertainty seems to have continued for years after the initial explorations, which showed in the discussion of the innovations introduced more recently. One interviewee commented that “*we don’t exactly know how it will look in ten years from now.*” This also implied that, in line with Chesbrough (2010), the incumbent operators needed to engage in a process of experimentation (Thomke, 2003) and effectuation (Sarasvathy, 2008). We are therefore able to posit that there are two distinct stages of business model innovation: an exploration stage, and a later exploitation stage.

Focusing further on the uncertain stage of business model exploration, our analysis led us to identify four main organizational issues: (1) the organizational conflicts surrounding the use of scarce resources shared between old and new business models, (2) the cognitive limitations in the face of a persistent dominant logic, (3) issues of organizational (re)design focused on structure, and (4) the sourcing and development of new capabilities.

Organizational resource conflicts between the old and new business model

Our interviews suggest that the exploration stage of business model innovation fosters particular organizational challenges. One such challenge is linked to missing future revenue estimates in the early stages of exploration. The exploratory efforts require an investment in time and resources for an outcome that is not just uncertain, but in the early stages entirely unknown. To illustrate how business model innovation affects the organization, Table 1 and Figure 3 contain some examples of new business models developed by the Portuguese Post. Consider the business model innovations depicted in Table 1, by contrasting each to the established baseline model. Each new business model builds on important organizational resources of the original (traditional) model. The original model already being strained by the tensions of the business environment, the expanded workload put into some of the existing resources (distribution centers in our examples) only makes the strain more acute. As such, the existing organization and its constituency may not perceive any benefits to this use of resources to enable new concurrent or competing unproven models to emerge. This is a particular challenge when the general strategic focus is on optimization, cost cutting and the downsizing of the workforce in the core business.

Insert Table 1 about here

Insert Figure 3 about here

One manager told us: *“it is not a big revenue generating business for the company, and that’s the weak part in knowing that the company is switching from the physical to the digital.”* Another comment unveiled the importance of shielding the exploratory efforts from the rest of the organization during this early stage: *“We really managed to make sure that from the top [...] these organizations were protected. You need to have ownership by the CEO, otherwise this is destroyed extremely quickly.”* The stories of these three posts confirm the particular challenge to business model innovation pointed out by Christensen (1997), whereby established technologies may be given more resources since they appear more profitable, at least in the short term. However, all three posts were able to effectively overcome this barrier. As one manager stated: *“We quite successfully managed to convince the internal management that, for the moment, revenue streams shall not be the most important KPI [key performance indicator].”*

The tensions between the existing business model and the new one may persist beyond the strict exploration stage and into the exploitation stage of business model innovation. The tension then becomes one between the exploitation of existing core activities and the refinement and establishment of new business models. Where Amit and Zott (2001) discussed conflicts between traditional and new configurations of firm assets in general, we find in the postal cases that this type of tension is due to several specific factors:

First, the type of creative destruction that leads to old capabilities diminishing in importance as new capabilities are being created:

“We could have the mandate to being responsible really for [the development of digital services] for all divisions... but if we did that we destroyed probably something very successful, something existing. The acceptance [by the organization] would be probably moderate... if we took away their responsibility for developing their services.” (Postal Manager, illustrating the conflict between new and old capabilities)

Figure 1 conceptually explains the process of creative destruction facing the postal organizations.

Second, the potential for products and services using the new business model to compete directly with those using the old business model:

“There are three kinds of services probably... There are services which help to even stimulate demand for existing business. Those are of course those who have the least resistance among the managers who are responsible for [the] core business and traditional business... The second group, they are indifferent... these kinds of services they neither substitute for the existing services, nor do they generate additional demand... the third category is then going into the substitution.” (Postal Manager, illustrating the competition between new and old business model)

Figure 2 empirically illustrates how the volume of personal letter mailing has been falling since the beginning of this century, as the volume of digital communications increased.

Third, the internal negotiation or even struggle for scarce organizational resources:

“In different stages... over the ten years, sometimes we felt we needed more resources to keep up the pace to make something new... I think one of the big challenges for us... is access to IT resources. That has perhaps been the biggest barrier: that we are competing and working to get access to the same IT resources within the company.” (Postal Manager, illustrating the struggle for scarce organizational resources)

Table 1, section Organizational Resources, comparatively shows, on the one hand, how some of the existing inbound/outbound logistics resources are shared by new and old models, and, on the other hand, how new digital processing resources are needed to enable the new models to operate.

Organizational cognition limitations in the face of a persistent dominant logic

A particular set of organizational issues are linked to the cognitive activities of sense-making and sense-giving that naturally accompany the process of business model innovation. Chesbrough and Rosenbloom (2002) argue that the success of established business models may influence the information flow that gets routed into or filtered out of decision making about business model designs. Thus, the dominant logic of the existing business model directs the way executives perceive new ideas for business models (Bettis & Prahalad, 1995; Chesbrough, 2010). In the case of the postal organizations examined in this paper, there was evidence of the importance of the dominant logic as a barrier. As one manager stated:

“[The] more I work at the post, the more I am attached to [a] conclusion. It is that we have to make an effort to think outside the box they put us in when I started working for this corporation. Because they format our mind: “the business of the post is this” and so on. And at a certain time you realize that I am thinking the way those guys want me to

think.” (Postal Manager)

The two related cognitive themes that emerged from our discussions with these postal managers were sense-making and sense-giving. We would argue that business model innovation must de facto involve an element of sense-making, as the people involved in creating the new business model must frame or re-frame what they conceive of as their recipe for business, and thus create a shared meaning (Weick, 1995). One manager stated that “we need to change our *minds, how we do business and how we develop our business.*” Once it has emerged, the new shared meaning (the business model) must be communicated more widely across the organization and a particular focus emerging from our interviews seems to be this need to “change minds” within the wider organization, through sense-giving activities. Such sense-giving activities include internal communication. Creating a shared meaning is an effective way to overcome the tensions discussed earlier, including creating a new dominant logic (Chesbrough, 2010).

“Whenever we launch these projects there is also a lot of internal communication. So we are very careful when announcing this new solution, what are the benefits. When [product name] was conceived... designed and developed... there were also a lot of actions to explain internally what [product name] was about... so that people could understand.” (Postal Manager)

Organizational (re)design issues with a focus on structure

The organizational design accompanying new business models is one critical aspect that

was emphasized by our interviewees. As one manager stated: *“When we started this, ten years ago, we discussed a lot how to organize this.”* A key element expressed by all three organizations was that the new business models had to co-exist and grow alongside the stagnating traditional business model that has nevertheless continued to provide the posts with the lion share of the revenues and profits. Key decisions needed to be made regarding where to position the new business models in the organizational structure, but also in the power structure, as alluded to earlier in this paper. Ensuring sufficient power in the struggle for scarce organizational resources is one concern, another is ensuring that a more innovative and creative culture be allowed to exist in relation to the new business model. Such decisions have all been made on the basis of some degree of trial-and-error (Sosna, Trevinyo-Rodríguez, & Velamuri, 2010), and, in general, experimentation seems to have been an important capability in establishing the details, particularly organizational design, of the new business models. In the words of one interviewee: *“We constantly learn and modify also the way how we organize ourselves.”* In the case of all three posts a new business unit was created to house the new business models being explored, effectively shielding the innovation process from the rest of the organization. One respondent stated:

“We needed to keep this a bit separate from the ordinary business. Not too separate. We decided to go for, to make a separate company, but we saw that there would be some extra cost, extra handling, extra management, if we do that. So we decided to establish a business unit. That was one way of handling a kind of small new-biz idea and small new-biz organization, but still keep it within the company. But in some extent able to give them some free room and some free space to innovate, to sell, to operate and so on.” (Postal Manager)

In the case of new business models that have nothing to do with the core business, the tensions between the new and old businesses are likely to be low and the core business will have little interest. As one interviewee stated: *“We develop e-health and e-government systems, and there the acceptance from the other divisions is of course extremely high, because they don’t see themselves in that business.”* However, as previously discussed (see Figure 3 and Table 1), some innovations may be seen as either complementary to (see Table 1: model 1 and model 2), or potential substitutes for the core business (see Table 1: model 3), and some degree of cooperation with the core business was essential to establish (see Figure 3: model 1 and model 2). For other projects the new business unit might even offer its services directly to the core business, to help them solve problems of their own.

Deciding where exactly to house the new business unit thus appears to have been a critical and difficult decision for all three posts. One of the posts openly stated that the *“unit has moved a bit around over the years”*. For some time they were part of one business owned by the operator that was perceived to have complementary capabilities, but the issue of organizational power became a problem: *“We were part of their organization... because we actually wanted to kind of merge some of our product... but then we discovered that this company... was not as visible and don’t have the power as the postal operator has. So we went back to the postal operator.”* When the new business unit aims to directly sell their services to other divisions the positioning is likewise of great importance. Another interviewee illustrated this: *“We will probably try... to position it directly reporting to the CEO... and this is one of the organizational*

problems or difficulties, is that because it is embedded today in one of our divisions, some other divisions may claim independent responsibility... *to choose developer or a consultancy from where they [want].*”

Cultural differences between the new and old business units do not appear to have received much attention in the business model innovation literature. In our interviews organizational culture was one important element of organizational design that appears to be an important consideration, and accompanies to some extent the cognitive issues previously discussed. Part of the problem lies with differences in the competences needed in the new business unit, which are more often than not completely different to those needed in the traditional business model. We discuss this in more detail below. Another part of the problem is simply the need for a more creative workforce in the new business unit. This comes back to the need to “*give them some free room... to innovate*”. One interviewee went a step further in telling us that it “*is clearly an advantage if people are a little bit remote of the headquarters. The headquarter has an existing way how to do business... you develop much more successfully if you give these people space and distance to the core.*”

Although the discussion above seems to suggest a need to separate the new business unit from the core, our respondents also suggested that there were efforts at socializing members of the new business unit. In one case, for example, the operator had launched a business by making an acquisition of a small technology start-up, and ultimately populated this start-up with a mix of people that included the original founders. “*The second group [of employees] is coming from the headquarters, being integrated into this new incubator, and the third group [are] recruits from*

outside... *[it] is a quite good mix of people who were formally a part of [the] founding team and of the headquarters*".

In terms of designing and positioning the innovative business unit, the picture that emerges is one of a dynamic tension between positioning the unit sufficiently close to the top management for there to be a strong support and protection from the top, but also sufficiently far from the top management to maintain a separate identity and culture. It is this tension that has most likely led to the high degree of organizational experimentation in the case of the Danish, Portuguese and Swiss posts.

Organizational capabilities, sourcing and development

Any discussion of the organizational dimensions of business model innovation needs to acknowledge the importance of resources and capabilities. Four issues in particular were identified in our study: First, the question of how to create and grow the new capabilities necessary to explore and exploit new business models, and in particular the choice of sourcing the capabilities through organic creation versus external acquisition. Second, what subsequent production competences have the potential to become core and thus need to be internally developed. Third, the question of complementarity between capabilities of the new and the core businesses. Fourth, questions related to the role of customers in shaping the business model innovations.

In all three posts, strategic acquisitions appear to have played a key role in building rapidly the capabilities necessary to create business model innovations. Speed was a key to

success. One interviewee stated that, with an acquisition, the organization had the possibility to establish key capabilities with one quick investment, rather than having to slowly develop these capabilities. Another described how “*we needed competences we didn’t have... we need the skills from people who have competences from the IT side of the business world. They need to have a feeling about data, output management, and different kind of services, software, and also to some extent integration into existing businesses.*” This particular post, in one occasion, made a strategic acquisition in the form of a 50/50 joint venture with a consortium of potential future customers, as a way to not only secure the necessary production capabilities but also at the same time to gain the access to and commitment of a number of large customers (commercial banks in this particular case). All three posts appear though to have been very aware of the need to protect their ideas. One manager told us: “*at a certain point we decided to develop something on our own... nowadays we are not using any solution of any third party.*” Another explained how in the case of a particular new service there was an initial joint venture, from which the post ultimately withdrew, in order to develop its own solution. In this particular case, the solution was seen as complementary to the core business and the indication seems to have been that this solution was therefore important to control entirely in-house.

An important consideration when acquiring new capabilities was the potential for complementarity with existing capabilities. One post considered this complementarity when making a particular strategic acquisition where “*they had gone already miles on the roadmap, but they had no sales [and] marketing capabilities and also no network. They were not able to really access their target groups. But they had the technology and they had the brains.*” Another obvious example of complementarity is how all three posts have attempted to leverage the

established postal brand when approaching new customers. One interviewee told us that “*it would have been impossible for posts to set up this operation if all society, and corporations that in most cases compete against each other, did not trust [the post].*” Another referred to an important mix between “*old credibility and new competences*”, and stated that the post was now in a position to “*help you no matter where you go, physical or digital or other ways*”. He further stated how “*we discussed the other day that it is still incredible that we can call up... most companies... and be able to establish a meeting on the board of directors’ level.*”

The potential of open innovation approaches, in particular those that involve the end user, have been largely described in the literature (Bogers, Afuah, & Bastian, 2010; Huff, Moeslein, & Reichwald, 2013). The posts examined here have all experimented to some degree with involving the customer; in particular there have been close contacts to the government as a large customer for whom new services can be developed. However, one manager expressed some degree of disappointment at the current level of general customer involvement, stating that “*we could... be better in taking the customer inside of our innovation project. The customer is still kind of outside of our innovation process... we have been very good... to try to assess what kind of commercial value we see in this product. And some of the reason, product features are coming even from the government from this kind of tenders, where they have some kind of specification of needs, we could see that could bring value not only to the government, but as a general service offer to the market.*” The degree of sharing of capabilities openly with customers has thus been very limited in the cases of these postal operators. Further challenges would include not only how internal capabilities enable such linkages but also how they enable effective integration and efficient value capture, in line with the overall business model (West & Bogers, 2013).

CONCLUSION AND DISCUSSION

Business model innovation is gaining momentum as a field of academic inquiry, and in practice as a purported source of competitive advantage in a changing world. As the core of this paper advocates, the literature on innovation and strategic management requires an expanded paradigm to explain how competitive advantage can be effectively derived from business model innovation. In particular, changes in the external environment — be they of a disruptive technological nature, linked to changes in the regulatory environment, the result of changing market needs, or any combination thereof — that make the organizational resources held by the firm obsolete, go beyond the successful incumbent firm's ability to accumulate valuable protected assets and achieve unique positioning in its industry. In the context of incumbent firms, where most resources are fully engaged towards optimizing extant processes, the organizational dimension of business model innovation takes center stage. Leadership, timely managerial responsiveness and the ability to renew the firm's competences to conquer such changes appear as paramount to the firm's survival.

Through this inductive case study of the European postal service industry, we elucidated a distinction between two stages within the business model innovation process: namely, business model exploration and business model exploitation. We then focused on the less researched business model exploration stage to unveil a set of four key organizational issues:

(1) Organizational conflicts for scarce resources shared between old and new business models. The case of the European postal industry supports that there may be conflicts with an existing business model or with the underlying configurations that support it (Amit & Zott, 2001; Christensen, 1997).

(2) Organizational cognition limitations in the face of a persistent dominant logic. We found that cognitive barriers (or a dominant logic) may prevent managers (i) to know what the right business model ought to be, or (ii) to begin experimenting with their business model (Bettis & Prahalad, 1995; Chesbrough & Rosenbloom, 2002).

(3) Organizational (re)design issues with a focus on structure. In line with Chesbrough (2010), we find that a process of experimentation (cf. Thomke, 2003) and effectuation (cf. Sarasvathy, 2008), combined with top leadership involvement (cf. Doz & Kosonen, 2010), may be necessary to enable the successful implementation of a new business model.

(4) Organizational capabilities, sourcing and development. In all three posts, strategic acquisitions appear to have played a key role in building rapidly the capabilities necessary to create business model innovations. An important consideration when acquiring new capabilities was the potential for complementarity with existing capabilities.

Our findings point to these four key areas of organizational study that have not received much attention yet in the growing literature on business model innovation, which we conceptualize and describe as consisting of business model exploration and exploitation. Besides being important areas for future conceptual research, these findings also highlight attention points for managers seeking to systematically organize their firm's business model innovation processes.

While our findings are based on a single industry, we expect similar processes and patterns to occur in other mature industries that go through a disruptive change that challenges the underlying assumptions of the incumbents' business model. More generally, any organization

that goes through a process of business model exploration and experimentation will be faced with significant organizational barriers that need to be overcome in the face of business model innovation. As such, our broad organizational findings should be generalizable to other industries and settings. Future research should determine how different external factors influence business model innovation, including exploration and exploitation processes, for various organization types and industries.

REFERENCES

- Afuah, A., & Tucci, C. (2001). *Internet business models and strategies: Text and cases*. New York: McGraw-Hill.
- Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic Management Journal*, 22(6-7) : 493-520.
- Ansón, J., Cuadra, R., Linhares, A., Ronderos, G., & Toledano, J. (2006). First steps towards new postal economics models for developing countries: learning from the Latin American experience. IN: M.A. Crew and P.R. Kleindorfer. *Liberalization of the postal and delivery sector*, Cheltenham (UK), Edward Elgar: 217-36.
- Bettis, R. A., & Prahalad, C. K. 1995. The dominant logic: Retrospective and extension. *Strategic Management Journal*, 16(1): 5-14.
- Bogers, M., Afuah, A., & Bastian, B. (2010). Users as innovators: a review, critique, and future research directions. *Journal of Management*, 36(4): 857-875.
- Brannström, P. & Lindeborg, P. (2011). The journey for future success – PostNord, Meddelande. In D. Osborn & K. J. Sund (Eds.), *The Future is in the Post Vol II: Perspectives on Transformation in the Postal Industry*. Faringdon: Libri Publishing.
- Casadesus-Masanell, R., & Zhu F. 2013. Business Model Innovation And Competitive Imitation: The Case Of Sponsor-Based Business Models. *Strategic Management Journal*, 34(4): 464–482.
- Chesbrough, H. 2003. *Open innovation: The new imperative for creating and profiting from technology*. Boston, MA: Harvard Business School Press.
- Chesbrough, H. 2010. Business model innovation: Opportunities and barriers. *Long Range Planning*, 43(2-3): 354-363.

- Chesbrough, H., & Rosenbloom, R. S. 2002. The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spin-off companies. *Industrial and Corporate Change*, 11(3): 529-555.
- Christensen, C. M. 1997. *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston, MA: Harvard Business School Press.
- Dietl, H. & Jaag, C. (2011). Postal and Regulatory Reform in Intermodal Competition. In D. Osborn & K. J. Sund (Eds.), *The Future is in the Post Vol II: Perspectives on Transformation in the Postal Industry*. Faringdon: Libri Publishing.
- Dougherty, D. 2002. Grounded theory research methods. In J. A. C. Baum (Ed.), *The Blackwell Companion to Organizations*. Oxford: Blackwell.
- Eisenhardt, K. M. 1989. Building theories from case study research. *Academy of Management Review*, 14(4): 532-550.
- Eisenhardt, K. M., & Graebner, M. E. 2007. Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1): 25-32.
- George, G. & Bock, A.J. 2011. The business model in practice and its implications for entrepreneurship research. *Entrepreneurship Theory and Practice*, 35(1): 83-111.
- Gruber, M., MacMillan, I. C., & Thompson, J. D. (2008). Look Before You Leap: Market Opportunity Identification in Emerging Technology Firms. *Management Science*, 54(9): 1652-1665.
- Hamel, G. 2000. *Leading the Revolution*. Boston, MA: Harvard Business School Press.
- Huff, A., Moeslein, K., & Reichwald, R. (Eds.) 2013. *Leading Open Innovation*. Cambridge, MA: MIT Press.

- Locke, K. 2001. *Grounded Theory in Management Research*. Thousand Oaks, CA: Sage.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1): 71-87.
- Mitchell, D., & Coles, C. (2003). The ultimate competitive advantage of continuing business model innovation. *Journal of Business Strategy*, 24(5): 15-21.
- Osterwalder, A., & Pigneur, Y. 2010. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. Hoboken, NJ: Wiley.
- Osterwalder, A., Pigneur, Y., & Tucci, C. L. 2005. Clarifying business models: Origins, present, and future of the concept. *Communications of the Association for Information Systems*, 16: 1-25.
- Porter, Michael E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Simon and Schuster
- Santos, J., Spector, B., & van der Heyden, L. 2009. Toward a theory of business model innovation within incumbent firms, INSEAD Working Paper No. 2009/16/EFE/ST/TOM, <http://ssrn.com/abstract=1362515>.
- Sarasvathy, S. D. 2008. *Effectuation: Elements of Entrepreneurial Expertise*. Cheltenham, UK: Edward Elgar.
- Sosna, M., Treviño-Rodríguez, R. N., & Velamuri, S. R. (2010). Business model innovation through trial-and-error learning: The Naturhouse case. *Long Range Planning*, 43(2): 383-407.
- Spector, B. (2013). The social embeddedness of business model enactment: Implications for theory and practice. *Journal of Strategy and Management*, 6(1): 27-39.

- Stieglitz, N., & Foss, N. J. 2009. Opportunities and new business models: Transaction cost and property rights perspectives on entrepreneurship. In J. A. Nickerson, & B. S. Silverman (Eds.), *Economic Institutions of Strategy (Advances in Strategic Management)*, Vol. 26: 67-96.
- Strauss, A., & Corbin, J. 1990. *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Sund, K. J. (2011). Transformation and diversification in the context of regulated industries: The case of Poste Italiane and PosteMobile. *International Journal of Management Education*, 9(4).
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, 43(2): 172-194.
- Thomke, S. H. 2003. *Experimentation Matters: Unlocking the Potential of New Technologies for Innovation*. Boston, MA: Harvard Business School Press.
- Weick, K. E. (1995). *Sensemaking in Organizations*. Thousand Oaks: Sage.
- West, J., & Bogers, M. 2013. Leveraging external sources of innovation: A review of research on open innovation. *Journal of Product Innovation Management*, Published online ahead of print: <http://dx.doi.org/10.1111/jpim.12125>.
- Yin, R. K. 2003. *Case Study Research: Design and Methods (3rd ed.)*. Thousand Oaks, CA: Sage Publications.
- Zott, C., & Amit, R. (2010). Business model design: an activity system perspective. *Long range planning*, 43(2) : 216-226.
- Zott, C., Amit, R., & Massa, L. 2011. The business model: Recent developments and future research. *Journal of Management*, 37(4): 1019-1042.

FIGURE 1:

Changing Landscape Exerting Pressure on the Postal Industry

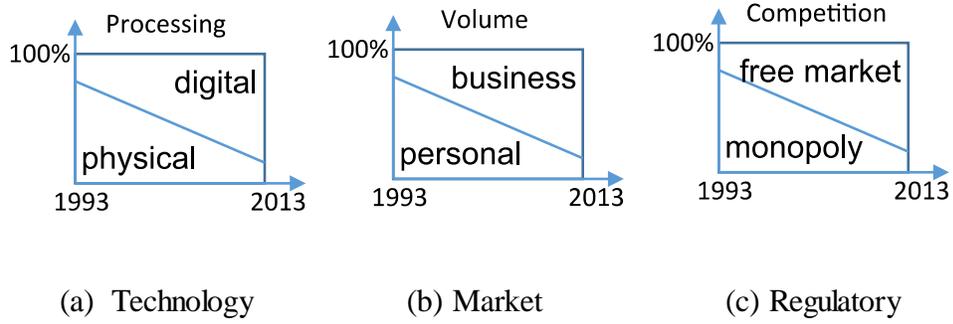


FIGURE 2

Growth in Physical Mail Items and Internet Users

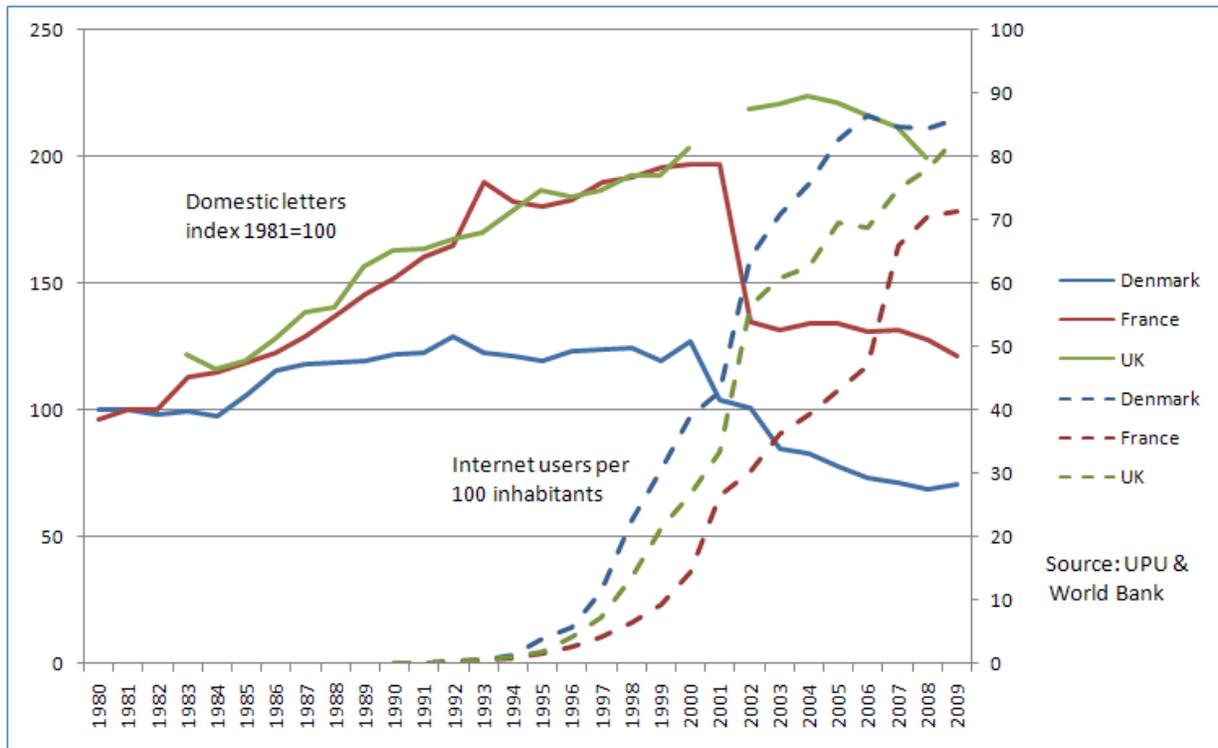
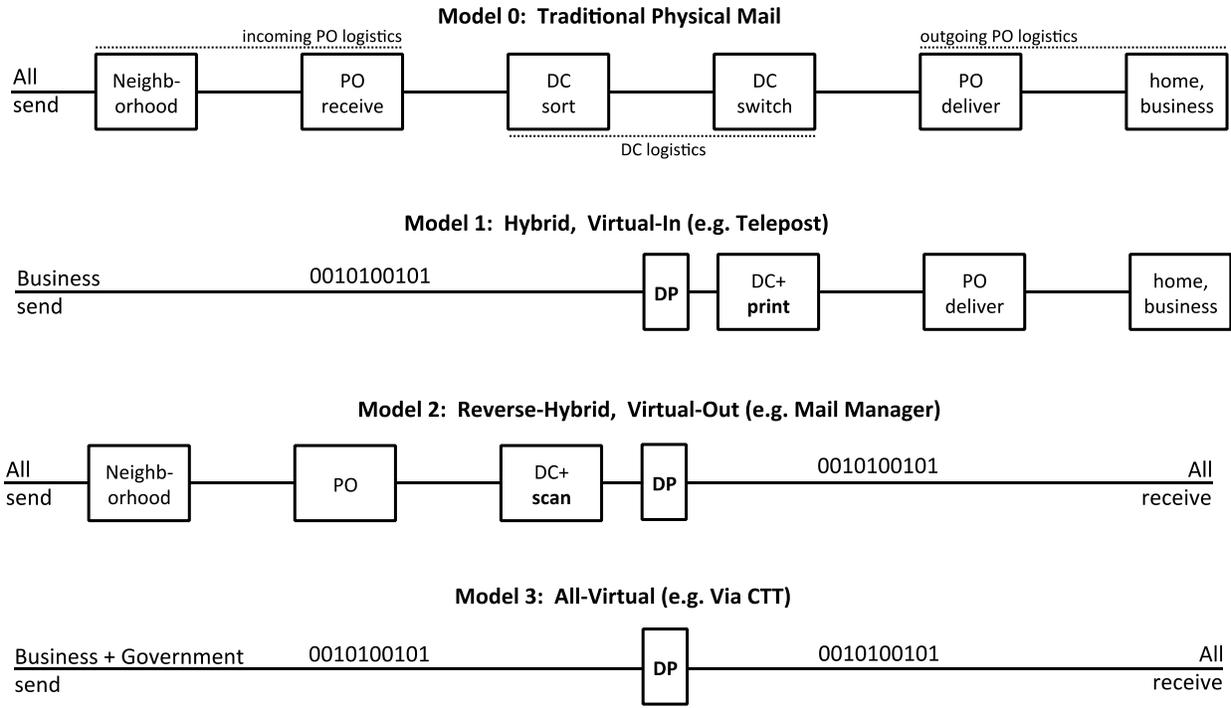


FIGURE 3

Three Business Model Innovations and New Organization Configurations



Notes: DP = Digital Processing, PO = Post Office, DC = Distribution Center, All = Personal Mail+Business+Government

TABLE 1

Three Business Model Innovations and New Value Structure

	Business Model			
	Model 1 Traditional Mail (baseline)	Model 2 Hybrid Virtual-In (e.g. Telepost)	Model 3 Reverse Hybrid Virtual-Out (e.g. Mail Manager)	Model 4 All-Virtual (e.g. ViaCTT)
Description	Offers all customers (personal mail, business, government) the universal ability to communicate with one another via physical correspondence.	Offers businesses a cost-efficient, and eco-friendly alternative for sending mass correspondence that is printed at the delivery location.	Offers personal mail customers a flexible and eco-friendly alternative for receiving correspondence that is scanned at the sending location.	Offers businesses and government a secure online communications mechanism to exchange real-time correspondence that is spam-free.
Organizational Resources				
<i>Existing</i>				
☐ Incoming PO Logistics	Y		Y	
☐ Outgoing PO Logistics	Y	Y		
☐ DC Logistics	Y	Y	Y	
<i>New</i>				
☐ Physical-to-Digital Conversion			Y	
☐ Digital-to-Physical Conversion		Y		
☐ Digital Processing		Y	Y	Y
Cost Structure				
<i>Transportation</i>				
☐ Neighborhood-PO	Y		Y	
☐ PO-DC	Y		Y	
☐ DC-DC	Y		O	
☐ DC-PO	Y	Y	O	
☐ PO-destination	Y	Y	O	
<i>Sorting</i>				
☐ Inbound	Y		Y	
☐ Outbound	Y	Y	O	
<i>Switching</i>				
☐ All-physical	Y		O	
☐ Physical-to-Digital Conversion			Y	
☐ Digital-to-Physical Conversion		Y		
<i>Storage</i>				
☐ Physical	Y	Y	Y	
☐ Digital		Y	Y	Y
Customer Segments				
☐ Personal Correspondence	Y		Y	
☐ Business Correspondence	Y	Y		Y
☐ Government Correspondence	Y			Y
Value Proposition				
☐ Communication	Y	Y	Y	Y
☐ Real-timeliness (instant delivery)				Y
☐ Cost-efficient (scale/scope)		Y		Y
☐ Flexibility (anytime/anywhere)			Y	Y
☐ Ecological (environment friendly)		Y	Y	Y
Revenue Streams				
☐ Mailing Services	Y		Y	
☐ Scanning Services			Y	
☐ Printing Services		Y		
☐ Cloud Services				Y

Notes: ☐ DC = Distribution Center, ☐ PO = Post Office, ☐ O = Optional, ☐ Y = Applies, ☐ blank = Does Not Apply