“EXPLORING BUSINESS MODEL INNOVATION IN PROFESSIONAL SERVICE FIRMS: INSIGHTS FROM ARCHITECTURE”

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ABSTRACT

Business model innovation may be a significant source of competitive advantage and firm performance. New ways of doing business have become increasingly important in the professional service sector. This research specifically focuses on business model innovation by architecture firms, which are suffering from the current financial crisis and changes in the architecture, engineering and construction industry. Architecture firms need to innovate not only their services, but also make more fundamental changes in the way they create and appropriate value. As other research on professional service firms has illustrated, the norms of a strong and established profession may not sit comfortably with acts of entrepreneurship and innovation. Therefore, we address the question of how architecture firms try to innovate their business models in response to the current market situation while being confined by well-developed institutions of professionalism. In an explorative study involving 15 architecture firms, we identified three patterns of how architecture firms try to innovate their business model. We discuss implications for theory on business model innovation in professional service firms.

KEYWORDS: business model; innovation; professional service firms; construction industry; architectural services

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INTRODUCTION
The economic situation since 2007 is increasingly characterized by rapid change so that organizations must now adapt quickly to stay competitive (Teece, 2010). They need to innovate not only their products and services, but also make more fundamental changes in the way they create and appropriate value, thereby innovating their business models. Business models define how organizations create and appropriate value and thereby capture the essential features of how organizations conduct their business (Zott et al., 2011). Business model innovation refers to the entrepreneurial activity of developing new ways of doing business. Innovative business models form significant sources of competitive advantage (Casadesus-Masanell & Zhu, 2012) and firm performance (Zott & Amit, 2007). However, because the development of new business models comes with uncertainty many organizations are hesitant to allocate resources to business model innovation (Björkdahl & Holmes, 2013). In other cases, organizations do not see opportunities for new business models because these fall outside their prevailing business logic (Chesbrough, 2010).

Our study addresses business model innovation in the professional service sector. Firms in this sector create value through processes that require them to know more than their clients, either in terms of expertise or in terms of experience in similar problem-solving situations (Løwendahl, 2005). While new ways of ‘doing business’ have become increasingly important in this sector (see e.g. Lu & Sexton, 2006, Greenwood et al, 2004; Brock, 2006), such new approaches come with specific challenges. The existence of and respect for professional norms often does not sit comfortably with acts of entrepreneurship and innovation in offerings and activity systems (Reihlen & Werr, 2012). While professional work involves personal judgment and discretion, it is not typically a rule-breaking entrepreneurial enterprise (Freidson, 2001). This tension is thought to be specifically present in classical professional service firms (PSFs) such as accounting, law, or architecture firms, which are subject to well-developed institutions of professionalism (Abbott, 1991; Von Nordenflycht, 2010).

This exploratory research specifically focuses on architecture firms and their attempts at business model innovation. Architecture firms have been severely hit by the current financial crisis and are also affected by changing roles and responsibilities in the construction industry, which have put their traditional business models under pressure. However, instead of changing the way of doing business and redefining the profession, architecture firms have mainly laid off staff and reduced working hours in order to cut costs and remain viable (BNA, 2011; Burr & Jones, 2010).
Based on 15 in-depth interviews we aim to answer the following question: How do architecture firms try to innovate their business models in response to the current market situation while being confined by their well-developed institutions of professionalism? We find that architecture firms try to use three strategies for business model innovation. Surprisingly, we also find that for one of these strategies, the profession played an enabling instead of restricting role.

This research contributes to the literature on business model innovation of established firms, which is still fragmented and young (Massa & Tucci, forthcoming). So far, research has identified measures to overcome internal organizational barriers to new business initiatives, such as for instance installing new leadership roles (Chesbrough, 2010). However, how firms address potential external organizational barriers, such as the cognitive standardization of professional services by well-developed institutions of professionalism, has only gained limited attention (Berglund & Sandström, 2013). In addition we shed light on new business creation in classical professional service firms. Research on entrepreneurship and innovation in professional services has been rather limited, although the sector becomes increasingly important in many Western economies and represents a unique context for entrepreneurship and innovation (Løwendahl, 2005; Reihlen & Werr, 2012). The few studies on new business creation in professional services have mainly researched firms that have relatively a younger tradition and less established professional norms such as consultancy firms (see e.g. Heusinkveld, Benders, & Van den Berg, 2012; Anand, Gardner & Morris, 2007). Studies in settings with a more established profession such as architecture are lacking.

THEORETICAL BACKGROUND

Business model innovation

The concept of business model has received increasing attention from scholars and business strategists interested in explaining firms’ value creation, performance, and competitive advantage (Zott, Amit & Massa, 2011). The definition of a business model is still developing, however the emerging consensus is that a business model may be defined as the rationale of how an organization creates, delivers, and captures value (economic, social, or other forms of value) in relationship with a network of exchange partners (Afuah & Tucci, 2001; Osterwalder & Pigneur, 2009). The business model is regarded as “a system of interdependent activities that transcend the focal firm and span its boundaries” (Zott & Amit, 2010: 116). An activity in a focal firm’s business model can be viewed as the engagement of resources (human, physical, capital) of any part of the business model to create and deliver a specific
value. An activity system is a set of interdependent organizational activities centered on a focal firm (Zott & Amit, 2010). We follow Snihur and Zott (2013: 5) and define business model innovation as “the development of an activity system that is new to the industry in which the focal firm competes”. It involves innovating the content (the nature of the activities), the structure (the linkages and sequencing of activities inside the firm and with partners), or the governance (the control/responsibility over an activity) of the activity system between a firm and its network (Zott & Amit, 2010). Business model innovation often is a complex and uncertain activity (Chesbrough, 2010; Snihur & Zott, 2013). It may involve many different internal and external stakeholders, disrupt industry norms, and directly affect the core identity of the firm. Literature has shown significant organizational barriers to business model innovation. Firms may suffer inertia because existing business models shape managerial thinking and prevent the perception of novel opportunities (Tripsas & Gavetti, 2000). Firms tend to seek and assess information that is consistent with their dominant business model and its logic, and fail to seek – or to see -- information that deviates from it (Cavalcante et al., 2011; Chesbrough, 2010). Further, new configurations of business models often conflict with those of the current business model and the associated conflicts of interest may create internal resistance (e.g. Chesbrough & Rosenbloom, 2002). Although business model innovation may also suffer from external barriers, these are hardly addressed in current literature (Berglund & Sandström, 2013).

**Professional service firms**

PSFs operate in niches that require a high degree of customization (Løwendahl, 2005). They are typically established by one or a few founding professionals and value creation is based purely on people and their expertise as opposed to machines and other tangible resources in manufacturing firms. Professional services have a few fundamental characteristics: they are highly knowledge intensive; they involve a high degree of discretionary effort and personal judgment by the experts delivering the service; they typically require substantial interaction with client representatives; and they are bound by professional norms of conduct (Løwendahl, 2005; Abbott, 1991). Particularly ‘classical’ or ‘regulated’ PSFs, a category that includes architecture firms, have a highly professionalized workforce. Employees of these organizations belong to established professions with well-developed institutions of professionalism such as professional associations, control of work, professional knowledge and education, and exclusive jurisdiction over a specific body of knowledge (Abbott, 1991). Together these institutions influence the development of distinctive and recognizable, yet
standardized professional services to clients. Although innovation in classical PSFs takes place (see e.g. Greenwood & Suddaby, 2006), it is constrained by their own institutions.

**RESEARCH CONTEXT**

**Architectural services**

Architectural services “include the supply of the design of a building, a process which ranges from working with the client to establish requirements; defining a design concept; negotiating with external stakeholders such as regulators of the built environment (planners) around that concept; developing the detailed drawings of that concept to instruct those who will execute work onsite and supervising and authorizing the work of the executors onsite” (Winch, 2008: 3). In the construction industry, complex tasks require integrating many different specialists to complete a service, while customization demands in-depth knowledge not only of client needs and preferences but also partners’ work styles (Jones et al., 1998). Therefore architecture firms create and appropriate value in project constellations, which are networks of firms chartered by clients that supply both design specialists such as engineering related-ones and project execution services for construction and completing building projects. In the construction industry individual firms often work in multiple constellations in different combinations, which restricts relation-specific routine development and the use of social governance mechanisms (Jones et al., 1998). Instead, coordination of activities and expertise takes place through widely shared industry standards and recipes without which conflicts and misunderstandings would arise. In addition, the roles and practices in any construction project are highly institutionalized. Each party has its own role and knows what duties constitute these roles and how actors interact with each other. For architecture firms, these roles and practices shape the business models that have gained legitimacy in the architectural profession.

**Changes in the construction industry**

The construction industry is currently undergoing significant changes. In the Netherlands, the sector was previously dominated by public agencies and characterized by a strong emphasis on planning. Now the emphasis is shifting to market driven concepts and to risk sharing between public and private market parties. New forms of collaboration are required, creating new opportunities, new roles and patterns of cooperation (Volker & Klein, 2010).

Although architecture firms have taken some initiatives to adjust to the market needs in the changing construction industry, these initiatives have been incidental and are not yet sufficient.
to maintain both architectural quality and a profitable firm. So their position is still threatened (BNA, 2011; Burr & Jones, 2010). Besides suffering from the current financial crisis, which hits hard on the overall construction industry, architecture firms see their role becoming more blurred and typical architectural tasks are taken over by other actors (Cohen et al., 2005). Many firms have been forced to downsize and others have folded up (BNA 2011). To guarantee long-term viability these classical PSFs recognize the need to fundamentally alter their business models that they have relied on for years. In these efforts, however, they are constrained by professional boundaries. We study how architecture firms address this challenge.

**RESEARCH METHODS**

Our research aims at theory elaboration with regard to business model innovation of established firms. Our study builds on pre-existing models or conceptual ideas to refine concepts, relations and their explanatory limits (Lee, 1999). To answer our research question, we build upon the activity system perspective on business model design by Zott & Amit (2010). We used qualitative research procedures to analyze current practices and innovation in business models in the field of architecture.

**Sample selection and data collection**

To ensure a good representation of the architectural field in the Netherlands, we selected a broad range of architecture firms. We included firms of different sizes. Micro-sized firms employ fewer than 10 people, small-sized firms fewer than 50 people and medium-sized firms fewer than 250 people (European Commission, 2005). As in other European countries, the majority of Dutch architecture practices employ fewer than 30 people (Architects’ Council of Europe, 2014). So the selected firms provide a good representation of the field of architecture in the Netherlands in terms of size. We also used a division of architecture practices based on their market orientation and way of competing. We included two types of firms, integral and design firms. Integral architecture firms focus on the delivery of integral services. Design firms are organized to deliver singular expertise on unique projects (cf. Gutman, 1988).

We conducted 15 semi-structured face-to-face interviews between 8 January and 26 March 2014 (Table 1). We selected different types of respondents. In general architecture firms often have a partner structure; senior architects and junior architects form the line below the directors/partners. Other staff departments include public relations, administration and business development. We interviewed partners, directors (not necessarily an architect),
architects and a business developer. All interviews lasted approximately 1.5 hour. In some cases an interview was held with two respondents. The interviews were conducted by two and sometimes three authors. The interviews focused on the development of business models and contractual and social relations between partners in building projects. Furthermore, firm strategies in terms of value propositioning and activity systems were discussed. In this way, the study captured how firms seek to renew and innovate while being constrained by professional boundaries. For all the interviews a protocol with open-ended questions was used. To ensure reliability, interviews were recorded, transcribed verbatim and checked by the respondents. Archival materials and informal discussions were used to prepare for interviews, to expand the understanding of each firm’s context, and to strengthen or question the findings of the interviews.

<table>
<thead>
<tr>
<th>Type of organization (firm size and market orientation)</th>
<th># firms in sample</th>
<th>Types of respondents (#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro integral firm</td>
<td>2</td>
<td>Architect &amp; partner (3)</td>
</tr>
<tr>
<td>Small integral firm</td>
<td>5</td>
<td>Architect &amp; partner (4),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Director (1), Architect (1);</td>
</tr>
<tr>
<td>Medium integral firm</td>
<td>3</td>
<td>Architect &amp; partner (3),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Architect (1)</td>
</tr>
<tr>
<td>Micro design firms</td>
<td>2</td>
<td>Architect &amp; partner (1),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Architect (1)</td>
</tr>
<tr>
<td>Small design firms</td>
<td>2</td>
<td>Architect &amp; partner (2)</td>
</tr>
<tr>
<td>Medium design firms</td>
<td>1</td>
<td>Architect &amp; business developer (1)</td>
</tr>
</tbody>
</table>

Data analysis
Since our research aims to elaborate theory on business model innovation of established firms, analytic induction was the first step in our analysis (Braun & Clark, 2006). By means of context analysis, a technique to visualize the relationships between the key issues, we identified key themes from the data (Sleeswijk Visser et al., 2005). In a multidisciplinary research group, including authors and non-authors of this paper, each interview transcript was analyzed by one of the researchers using statement cards with paraphrases and relevant quotes. The statement cards were discussed in a group meeting and categorized by themes. Disagreements that occurred were discussed until consensus was achieved. The relations between the themes were visualized and a codebook was created. Important themes that
emerged were professional identity, partnering and collaboration, addition of (new) services and targeting international markets. Findings from the context analysis were consolidated and validated in a workshop with practitioners. After this validation, data were re-examined and the central themes were further analyzed and extended by looking for differences and similarities in the data. The codebook went through several iterations. New themes emerged while others were combined, split, or moved. A discussion with two researchers followed about each of the themes and sub-themes. The final codebook is presented in Table 2.

Table 2. Codebook

<table>
<thead>
<tr>
<th>Main themes</th>
<th>Sub-themes</th>
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<tbody>
<tr>
<td>Market change</td>
<td>market responses, survival in crisis, reorganization, government regulation impedes architects, requirements clients, opportunities</td>
</tr>
<tr>
<td>Profession</td>
<td>reputation architect, change of profession, entrepreneurship, mindset, support branch association, identification, raison d’être architect</td>
</tr>
<tr>
<td>Identity</td>
<td>meaning architect, developing creativity, design as core discipline, profit is not an objective, own way of working</td>
</tr>
<tr>
<td>Internal organization</td>
<td>partner structure, culture firm, integral teams, span of control, independent positioning units</td>
</tr>
<tr>
<td>Strategy</td>
<td>competitive advantage, collaboration with competitors, separate spin-offs, flexibility, focus, networking, internationalizing, active search for projects</td>
</tr>
<tr>
<td>Internal management</td>
<td>targets, responsible risk-taking, business plans, development plans personnel</td>
</tr>
<tr>
<td>Research and development</td>
<td>Capacities for innovation, knowledge development</td>
</tr>
<tr>
<td>Partner selection</td>
<td>network, local network abroad, trust, regular partners</td>
</tr>
<tr>
<td>Collaboration</td>
<td>integral collaboration, separation of roles, collaboration with other parties, team formation European procurement, strategic alliances, knowledge sharing</td>
</tr>
<tr>
<td>Addition of services</td>
<td>consulting services, BIM services, BIM coordinator, proactive approach architect, additional services to support architectural role</td>
</tr>
</tbody>
</table>
FINDINGS
The primary aim of this research was to investigate business model innovation of architecture firms as a response to the current market situation while being confined by their well-developed institutions of professionalism. We identified three strategies for business model innovation: 1) addition of (new) services offering, 2) partnering and collaborating and 3) targeting international markets. We analyzed to what extent these strategies were constrained or supported by the members’ professional identity as architects.

Professional boundaries, identity and innovation
According to the respondents, significant moves towards integration within the construction industry have led to new practices, new roles and new working relationships amongst different disciplines of the building industry. Although architects in our sample still perceived their profession as the artistic side of the value chain and perceived an overall responsibility for the design of the building, the traditional roles of building professionals were changing and their authority on the detailed design was sometimes transferred to other parties. They indicated that due to scarcity of financial resources, integrated contracts and an increasing competition among actors in the value chain, the scope of architecture activities had declined. At the same time, construction assignments had also become more complex, which required different approaches to collaboration. “Spatial issues should be considered in an integrated manner […] Thus it is getting increasingly complex, including larger teams and more and more specialists” (architect).

As a response to these developments, most architecture firms believed that they should offer more comprehensive services in the future. In architectural services the meaning of innovation for professionals is strongly linked to the ‘professional logic’, i.e. what is regarded as appropriate in the professional environment (Thornton et al., 2005). Although our respondents intended to explore areas of professional services other than their traditional domain of design, they also argued that design should always be the core discipline of architecture firms. “Being an architect is in our nature, so we cannot remove everything from our business […]. The design discipline must always be present. That’s the basic idea” (partner & architect). This strong professional identity was also expressed within the strategic choice of projects, which needed to match the firm’s sense of who they were and to fulfill their creative needs. “We do all kinds of projects that interest us and what we love to do. Our priority is to continue this kind of work. No one can tell us that we should do it differently” (partner & architect). Our interpretation is that changes within and pressure from the field to
innovate their services and thus their business models often did not fit with the professional identity of the architect or firm. For example, architects were sometimes asked to assess the design and work by other architects. While one respondent utilized such requests as another source of revenue, another one felt that such reviewing work would not fit their professional identity and were therefore reluctant to take it on: “I find it more comfortable to be an executing architect, rather than just reviewing someone else’s work” (architect, validation workshop).

During the interviews it became clear that architecture firms were not used to think about the fundamentals and innovation of their business. One respondent, who also investigated culture and structure within architecture practices as a side project, observed: “Most of the architecture firms wrote their business plan probably once in the beginning, but eventually they stopped adjusting these plans. While I actually think that adjusting those plans is something that an organization constantly needs to do. So by now firms should be at version 100 or something [...] architects are not used to think like that. Since the financial crisis we are realizing this might be valuable” (business developer & architect). This statement was supported by our own observations during the interviews. We asked if firms could provide us with their recent business plan and it appeared that most of the interviewed firms did not have an updated business plan, or never had one in the first place. Since the economic crisis has hit the profession hard and architecture firms saw their revenue declining by half, firms were forced to learn more about their business and business model.

**Addition of new services**

As a response to the current market situation, some architecture firms introduced a broader range of services to the market. They expanded beyond their core architectural services and moved into areas such as project management or providing aesthetic advice to clients. For example, one architecture firm had recently started to develop a management and maintenance modeling service for existing buildings. In the short run this new type of service should generate revenue and bring new knowledge. In the future, the aim was to increase these kinds of services and expand the core business model of the firm.

Many architecture firms were investing in BIM activities. Building Information Modeling (BIM) applications are being rapidly embraced by the construction industry to reduce costs, time, and enhance quality as well as environmental sustainability (Ku & Taiebat, 2011). Benefits of using these models are better data for real-time decision making, improved design quality, shorter delivery times, and the reduction or elimination of rework after assembly has
begun (Jones, 2009). As a result, clients and contractors are expecting architecture firms to have knowledge of and experience with using BIM or BIM-related tools. This general finding was also evidenced in our sample: “There are clients that say, ‘you have to do it in BIM, otherwise you cannot do it at all’. So there is no choice whether you do it or not” (architect). Most respondents said they were delivering BIM services and new technologies like BIM are seen as an element of the service delivery of an architect. “Actually all these activities we do, that whole BIM story, we do that to support our architect work and we think we are a better architect because of it” (architect). Since the traditional architecture services have come under pressure, architects in our sample believed that adding BIM services could strengthen their core business. Two firms indicated that by means of creating a spin-off for BIM consultancy, they remain in the vanguard of the market. “We are starting a new business, purely focused on BIM. In doing so, we hope to generate more work. This new business is set up as an independent company. So, we have two companies. For the outside world it is something that could fully function without an architect” (architect). Using different labels or firms helped practices to disconnect BIM service delivery from their traditional business model and revenue structure. The two firms with a BIM spin-off were thinking about a different revenue structure that would be more suitable for BIM consultancy work. To grasp these opportunities that are not performed by other firms in the supply chain yet, the two architecture firms tried to claim these BIM services as being a natural extension of their traditional services.

**Partnering and collaboration**

In the field of architecture collaboration has become increasingly important. All respondents acknowledged that collaborating with other firms had become a strategic aspect of running their business and part of the firm’s business model. “It is absolutely essential to collaborate, not only in breadth or length of the supply chain but also among architects” (architect & partner). The reasons for this increasing collaboration were new European tender laws and the increasing complexity of projects. In most of the building projects, architects had to work as part of a consortium. Due to the changing legislation in the European tender procedure, which regulates the process of submitting a proposal in response to an invitation or request for tender, partners are needed to bring in resources and capabilities to meet the requirements. Our respondents explained that it depended on the specific project which partners were useful or necessary. Partners were often selected on the basis of a shared vision for realizing high quality and a similar way of working. Incentives, like a success fee, were used to make sure that all partners maximize their input. Partners were sometimes selected based on task-related
(reputation; status) or partner-related (trust; prior ties and association) criteria, but mostly on project-related (portfolio) criteria. The selection of partners was often conducted at the last minute, but respondents were increasingly engaging in long-term partnerships. “We work with a limited number of parties and we want to work with them more often. To be better and to win projects. This strengthened our positions” (director). Thus while the focus of collaboration was often short-term, this was beginning to shift towards more long-term collaborating and more willingness to collaborate again. An explanation for this change in orientation may be that by working with the same partners repeatedly, a higher quality and therefore more benefits for the client can be realized. Although most firms were used to work with different partners, respondents acknowledged that the development of strategic alliances was highly relevant for the future. These forms of partnering differed from partnering in the traditional sense, in which the client was leading. In these new forms of collaboration, it was the architect that took the initiative not only to deliver adequate services, but also to enable his firm to capture more value. Three partnering strategies were identified: partnering with other architects (competitors), partnering with foreign architects, and partnering with other actors from the field (e.g. contractors, suppliers).

Partnering with other actors from the field can result in new projects and stimulate innovation. Our respondents explained that temporary relations, such as strategic alliances with contractors, construction engineers and research institutes helped them to develop new knowledge. “We are joining forces with contractors. We also collaborate with TNO [a Dutch contract research organization] and a technical university. We are really looking for those partners to work together and innovate” (architect). A few respondents mentioned that they were partnering with a variety of actors from the field, but many firms were collaborating with other architecture firms.

Several reasons to work with other architecture firms were mentioned. Partnering with other architects was seen as helpful to gain large and complex projects. Input from other architects could help to keep up with the competition. This collaborative context in which architecture firms increasingly made use of each other’s expertise, also led to direct revenues for firms. “In the past year we have worked with 15 architecture firms. On the one hand to earn money. On the other hand it offers an opportunity to see what is happening inside these firms” (architect). Partnering with architects increased the opportunity to gain (international) projects, which was important for them because currently there are more opportunities in emerging markets than in the Netherlands. For example one of our respondents collaborated with a group of architects that work abroad under a combined name in order to qualify for
major international hospital projects. Collaborating when going abroad often had to do with the Dutch architecture firm being relatively small in size compared to competitors from other countries. The initiative to approach the international market with a main competitor increased the chances of being selected for a large international project. To obtain these kinds of projects became more and more important, since there were fewer opportunities for projects in the Netherlands and maybe more opportunities in countries such as China.

Partnering with architects from abroad was also used to increase the chance of obtaining international projects. A small architecture firm won a highly prestigious project, because they choose to collaborate with a famous British firm. Although there were no previous ties of collaborating, the Dutch firm took the initiative to approach a highly qualified partner for the project. Our respondents explained that firms were now more willing to approach colleagues to participate in a specific project. As a result, architecture firms expanded their networks by forming new relationships with new partners. It seems that architecture firms were doing this more easily than other parties in the supply chain. In this case, the profession enables firms to contact each other and form partnerships. This is also evident from the fact that one architecture firm was able to quickly adapt to the market situation by transferring employees to an architecture partner firm.

**Targeting international markets**

Approaching new markets provides opportunities to create and appropriate value for architecture firms. Through international projects, architecture firms can create opportunities for growth that may be unavailable in the domestic market. Multiple firms saw potential to expand their business through international projects. “I personally think that a quarter of our future revenues is generated from international markets. We are very busy with those international initiatives to see if there are any kind of international markets we could approach” (architect & partner). Other reasons to work abroad include higher building production in foreign countries, availability of resources and lack of international competition. The accession of eastern European countries to the EU has given architecture firms the opportunity to expand into this international market. Due to the continuing integration of Europe, firms are more inclined to cross national borders. “We have a location in Poland. We wanted to internationalize our business activities. (…) We forecasted funding streams from the EU, which resulted in a strong support for building production in Poland. That was also the case in Portugal and Spain” (architect & partner). Nonetheless, there were also firms that specifically choose to focus on the Dutch market. In our sample, the firms who were not
working abroad were small or micro in size. “It is not necessarily that we do not want to work abroad, that is not the case. But we are not actively targeting new markets. (...) because we notice that there is still a lot of work in the Netherlands for us” (architect & partner). It could be argued that smaller and micro-sized firms have fewer resources and international (local) partners to operate in such markets. One of the interviewees explained that he exclusively works in the Netherlands because he believes that the foreign context and combination of various parties would make it difficult for him to both play an important role and maintain high quality.

The question therefore is under what conditions and with which strategy architecture firms should target the international market. A frequently referred condition was the availability of appropriate local partners. To increase international performance, collaboration with local partners was seen as vital for delivering high quality. The engineering and construction stages were often executed by a local partner because of their knowledge of local legislation and building methods. The decision to operate abroad was hence dependent on finding a suitable local partner for international projects. Irrespective of the location - some firms work a lot in Asia while others prefer to operate in neighboring countries - the importance of these local partners was fully recognized. “Germany is nearby our location and it is our intention to approach that market from here. We are not just starting a new business abroad without thinking it through carefully, however if that is needed in the future we will definitely do it. In that case, we will look for local partners to collaborate with” (architect & partner). The success of these foreign initiatives varied and although respondents who were internationally active or planned to be in the future, expected their international workloads to grow, revenues were still lagging behind expectations.

DISCUSSION

In this paper we have examined how architecture firms try to innovate their business model to respond to the new market situation, while being confined by their professional boundaries. We identified three innovation strategies with different implications for business model design. One or more of the design elements (e.g. content, structure, governance) have to be changed when implementing these strategies.
Table 3. Business model innovation strategies for architecture firms

<table>
<thead>
<tr>
<th>Type of BMI innovation (content, structure, governance)</th>
<th>Addition of new services</th>
<th>Partnering and collaboration</th>
<th>Targeting international markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation in content</td>
<td>Innovation in governance</td>
<td>Innovation in content</td>
<td></td>
</tr>
<tr>
<td>Profession restricts addition of new services. Firms circumvent these restrictions</td>
<td>Profession enables partnering and collaboration</td>
<td>Profession is neutral regarding targeting international markets</td>
<td></td>
</tr>
<tr>
<td>Example</td>
<td>Offering BIM services by a new business disconnected from focal firm</td>
<td>Partnering under a combined name with colleague firm in order to gain projects</td>
<td>Starting international offices</td>
</tr>
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</table>

Regarding the addition of new services, such as value creation through BIM services, the content of the activity system has to change. BIM services involve management activities in all the stages of a construction project. To coordinate the BIM process during the engineering and construction stage of a building process, architects in our sample delivered services in stages in which they were not frequently involved before. In the construction industry roles and practices are fairly institutionalized, and people are aware of the scope and goals of all other roles represented in a building project. These shared understandings could impede architects to do other activities besides design. Our findings showed that architecture practices circumvent this barrier by disconnecting BIM services from the traditional architectural activities using spin-offs and separate labels.

Networking activities and investments in long-term relationships are becoming increasingly important. Due to the complexity and high requirements of European tenders, architecture firms were getting increasingly involved in new kind of partnerships or collaborating initiatives. Such collaborations have become part of the business model for most architecture firms apart from the very small ones. Partnering involves a change in governance of an activity system. Architecture firms were partnering with engineering firms and suppliers (e.g. contractors, product-suppliers), but mainly with other architecture firms. It seems that firms were approaching their peers more easily compared to other parties in the sector. They share the same background and in that sense the profession may be enabling instead of restricting business model innovation.

Working in international markets requires a different approach, and therefore the content of the activity system had to change. Architecture firms needed knowledge of the local legal
context and construction methods, which meant that the service delivery abroad varied from service delivery in the Netherlands. The data showed that the profession was neither restricting nor facilitating architecture firms to operate in the international market. So, architecture firms were also innovating their business model within their professional boundaries.

Research on business model innovation is young and still developing. One of the core insights so far it that organizations need to keep innovating their business models to stay viable, yet that business model innovation is difficult to achieve (Björkdahl & Holman, 2013; Chesbrough, 2010). There are significant organizational barriers to achieving business model innovation (Chesbrough, 2010). The intra-firm barriers include organizational inertia (Sosna et al., 2010), cognitive closure of firms (Chesbrough, 2010) and conflict with existing assets (Amit & Zott, 2001). Research has identified measures to overcome these organizational barriers that are rooted inside the firm. However, the external barriers of business model innovation are less addressed in the literature (Berglund & Sandström, 2013).

Using the framework of business model design by Zott & Amitt (2010) our study contributes to the literature on business model innovation. We found external barriers can occasionally restrict organizations from innovating their business model. In order to overcome these barriers, organizations can circumvent them. However, it is also possible that outside elements that are often seen as barriers become enablers for business model innovation. Furthermore, in some cases these elements seem to have little effect in the architecture business.

We also offer insight into the relationship between entrepreneurship in professional service firms and well-developed institutions of professionalism. The organizational fields within which professional service firms operate have undergone radical changes (Brock, 2006). Therefore, new ways of doing business have become increasingly important in the professional service sector. It is argued that in classical professional service firms, such as architecture, innovation is caged within professional boundaries (see e.g. Reihlen & Werr, 2012). Standards are well defined by professional associations and mediated through teaching programs and credentials as a reference point for assessing professional practice.

The question is to what extent the constraining aspects of professional norms also apply to architecture firms. Unlike other professional service firms like accountants and lawyers, architects are distinctive for their creative dimension (Cohen et al., 2005) and are constantly involved in developing new designs. However, in most cases, their innovative activity has been directed at creating solutions for specific spatial problems. There is far less evidence of
innovation in building technology and it appears that the architectural community is slow at addressing new market opportunities.

From the perspective of the professional service firm literature, a possible explanation for the reluctance to engage in business model innovation may be that the architectural profession may be restricting innovation, simply because innovations of the content of activities are not always regarded as appropriate in the professional community. We find, however, that the institutions of professionalism not only have a negative effect on business model innovation; they can also facilitate BMI and support new ways of value creation and appropriation particularly in the area of peer collaboration among architects.

LIMITATIONS AND FUTURE RESEARCH
This research has certain limitations that deserve to be mentioned. The framework of business model design by Amit & Zott (2010) supports the study of innovation in activity systems. However, it pays less attention to the revenue structure of a business model. Future research is needed to assess the revenue structures of new business models of architecture firms. Also, current business model research has mainly focused on barriers to business model innovation without discussing enablers. However, our study shows that potential barriers may also support business model innovation. This notion could be further explored. Furthermore, elements such as the innovation capabilities of firms were not explicitly considered. One direction to extend this study is to investigate these capabilities. We currently have a relatively small sample in which we focused on architecture firms, ignoring other firms in the construction industry. In order to define future roles and services of architects, information from other actors in the field is needed as well. Architects might have different opinions on their roles and activities than clients, contractors or suppliers. Finally, to expand generalizability of this study it would be beneficial to conduct the same research in a larger sample and also in other countries that experience similar market pressure but have somewhat different professional norms and traditions that could contribute to what the architectural community regards as acceptable expansions of their professional identity.

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