
Digitalization-effects on the legal industry: Emerging business models

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Structured Abstract

Purpose – This empirical paper addresses the effect of digitalization on professional service firms (PSFs). In particular, we apply business model frameworks to identify important dimensions of recent disruption within this context. PSFs, such as law firms, are defined by the professional workforce they employ and the knowledge-intensive services they deliver. While the business models underpinning these firms have changed little over the past century, recent research indicates that digitalization can severely disrupt this industry.

Design/methodology/approach – We present empirical evidence from law firms applying alternative business models. Initially, data was collected through twelve semi-structured interviews in Silicon Valley in 2015. Subsequently, we conducted a media study identifying an additional 8 firms interviewed over Skype in 2016 and early 2017.

Originality/value – The findings reveal key issues related to changes in law firms business models caused by digitalization: (1) cost and lawyer flexibility as main drivers of business model innovation through technology; (2) rethinking of business models in law; (3) enacted technologies as driver of change; and (4) digitalization as a way to overcome resource trade-offs. Each of these issues can and are likely to cause extensive changes to a professional service firm’s business model.

Practical implications – In conclusion, we find that digitalization has huge implications for how professionals in the legal industry can structure their work, interact, recruit and train employees as well as design their services and interact with clients. The study of law firms contributes as an illustration of the potential impact of digitalization on a broader set of knowledge intensive organizations.

Keywords – Business models, Case study, Digitalization, Disruptive innovation, Professional Service Firms.

Paper type: Academic Research Paper

1 Introduction

New technology and digitalization will change the way knowledge workers make their living (Chui, Manyika, & Miremadi, 2016). This empirical paper addresses the effect of digitalization on professional service firms (PSFs) - with particular attention to emerging disruptions in their business models. Whereas the business models underpinning PSFs have changed little over the past century, recent research indicate that digitalization can severely disrupt professional service industries (Christensen, Wang, & van Bever, 2013). PSFs are defined by the professional workforce they employ and the knowledge-intensive services they deliver (Greenwood, Li, Prakash, & Deephouse, 2005). Examples of such firms are law firms, management consultancies and engineering consulting firms (von Nordenflycht, 2010). These types of firms have been pointed to as model organizations to understand knowledge and value creation in the knowledge society (Starbuck, 1992).

Traditionally, PSFs have made their living by judgement-based advice with high-margin hourly rates for bundled services. Increasingly, this model is under pressure from disruptive forces (Christensen, 1997; Christensen et al., 2013). Whereas previous waves of automation have predominantly effected labour intensive work, current technology enables automation and commoditization of knowledge intensive work (Christensen et al., 2013; Davenport & Kirby, 2015; Susskind & Susskind, 2015). These authors point to potential disruptions of PSFs' business models in particular. Business models are described as the architecture of an organization's value creation (Teece, 2010). Theory on business models is in itself an emerging research theme that integrates insight from several different disciplines such as strategy, marketing, operations management, organizational design and innovation (Christensen & Johnson, 2009; Zott, Amit, & Massa, 2011). This study applies recent business model frameworks (Osterwalder & Pigneur, 2010) to identify important dimensions of disruption to PSF value creation caused by digitalization. Digitalization refers to the pace of change in contemporary society driven by digital technological development (McAfee, 2009). To inform these issues we seek to address the following research question: *How are digital technologies affecting the business models in the legal industry?*

We propose a theoretically sampled, theory-building case study design (Eisenhardt, 1989; Eisenhardt & Graebner, 2007) to explore the impact of digitalization on PSFs business models. The choice of research approach can be justified by the lack of knowledge about how new technologies influence the organization, management and business models

in this context. We offer empirical evidence from 20 firms within the law industry with alternative business models. The study analyses changes in business model dimensions and reveal three key issues related to changes caused by digitalization. These four are: (1) Cost and lawyer flexibility as main drivers of business model innovation through technology; (2) rethinking of business models in law (3) enacted technologies as driver of change; and (4) digitalization as a way to overcome resource trade-offs.

2 Theoretical background

Technology has been claimed to have an increasing role in tasks that in the past has been conducted by human experts (Chui et al., 2016). Digitalization is constituted by a variety of emerging technologies at different stages of maturity and market acceptance, and it has been suggested that these will converge and mutually strengthen each other in the digital revolution (Manyika, Chui, Bughin, Bisson, & Marrs, 2013). In particular, two main dimensions have been identified to enable comprehending the different emerging types of technology (Brynjolfsson & McAfee, 2014). First, increased machine power – including emerging technologies such as Artificial intelligence, Big Data, augmented reality, advanced robotics, autonomous vehicles and 3D-printing. Second, increased connectivity – including technologies such as mobile internet, social media, Skype, Internet of things (IoT), Cloud and Fog, as well as Blockchain.

The combined effect of all of these emerging technologies are yet unknown, however it is likely to have a considerable impact on expert based businesses (Jesuthasan, Malcolm, & Zarkadakis, 2016). Existing research has pointed to PSFs as a type of businesses where the impact of digitization will be greatest (Manyika et al., 2013), but so far it does not exist much empirical research substantiating such a claim. In this article, we therefore present the findings of an ongoing research project on the effects of digitization on PSFs. More specifically, we look at how digitization affects business models underpinning law firms.

2.1 Extant research on digitalization in professional service firms

PSFs are dependent on the expertise provided by the competent professionals they attract. Professionals make a contribution to these types of organizations based on their skills, expertise, experiences, relationships, professional reputations, and networks (Greenwood, Li, & Prakash, 2005; Løwendahl, 2005). They follow professional and

altruistic norms (von Nordenflycht, 2007) and show responsibility towards their clients in protecting their interests (Løwendahl, 2005). Following the importance of such norms, professionals show a preference for autonomy (Alvesson & Karreman, 2006), exhibiting a distaste for control, supervision, and formal organizational processes (Greenwood & Empson, 2003; Løwendahl, 2005; von Nordenflycht, 2010). The competitive advantage of PSFs (Skaggs & Youndt, 2004) has been explained by the high degree of information asymmetry that exists between the professionals and their clients, that also leads to opacity related to the clients ability to assess the quality of offered services (von Nordenflycht, 2010).

PSFs already experience how digital document handling, email and Skype interaction and use of social media can have major implications on the internal and external communication (Chui et al., 2012). Recent research have identified how e.g. wiki technology is utilized for learning and knowledge exchange among geographically dispersed engineers (Breunig, 2016), how Cloud based platforms are providing the opportunity for virtual organizing to occur in the legal industry (Breunig & Skjølsvik, 2016), and how social media provide different marketing channels for big law firms (Brivot, Lam, & Gendron, 2014). Moreover, increased scalability and opportunity to standardize can foster new subscription based business models (Breunig, Kvålshaugen, & Hydle, 2014) and organizational types, such as virtual firms. Particularly within the context of law firms, Susskind pointed early on to the potential changes digital technology could lead to (Susskind, 2008). Many of his predictions – e.g., that lawyers in the future would base most of their correspondence with clients on e-mail - was ridiculed. This has changed over time, and recently, technological development has revolutionized how people communicate and share knowledge across borders and between organizations.

In addition to using technology as a support in the performance of work, technology can also have a profound effect on how this kind of company makes money and organize work practices and collaboration - both internally and with customers. This is suggested as a potential source of increased productivity - particularly for PSFs (Chui et al., 2012). In addition, it is likely that artificial intelligence will have a major influence on the market for professional services (Kolbjørnsrud, Amico, & Thomas, 2016). Digital technological developments can thus potentially affect the opportunity for scalability and mass-production of this type of knowledge-based services (Sawhney, 2016).

2.2 Business model theory

There does not exist a common definition of what a business model is (Zott et al., 2011). To understand a business model, many scholars rather list its components (Osterwalder & Pigneur, 2010) than give a detailed description. However, as a starting point, a business model describes the architecture of an organization's value creation, delivery and capture and explains how the organization operates and coordinates resources and activities (Ovans, 2015 ; Teece, 2010; Zott & Amit, 2007). In this way, the business model explains "the logic" of the organization (Teece, 2010).

The use of new business models on the internet from the mid 1990s to the early 2000s resulted in an increased interest in business model concept (Amit and Zott, 2001). Also, the use of business model innovation to reinvent industries has become increasingly common (Johnson, Christensen, & Kagermann, 2008). More recently, there has been an resurgence in interest in business models (Baden-Fuller & Mangematin, 2013) and a recognition that many business model innovations fail (Christensen et al., 2013). The value canvas presented by Osterwalder and Pigneur (2010) has been a driver of this new interest and proven to be applicable on practical cases. In particular, the framework by Osterwalder and Pigneur integrates existing business model research – proposing 9 main dimensions of a business model: (1) value proposition, (2) customer(s), (3) channel(s), (4) relationship(s), (5) resources, (6) activities, (7) partner(s), (8) cost structure(s) and (9) revenue stream(s) in the form of payment models. Building on the generic properties of business models – and the value canvas in particular – we aim to study the effect of digitalization on emerging business models in the legal industry. In particular, we study value proposition, customers, payment models, key activities and resources as well as costs.

A number of scholars in the 1990s pointed out that PSFs compete based on different business models, such as efficiency, expertise or experience (Maister, 1993) or solutions, creative problem solving or client relations (Løwendahl, 1992, 1997), and that generic strategies can be based on strong delivery, strong ambition, strong experience or strong ideas (Winch & Schneider, 1993). The theme of PSF business models has recently been picked up again by Christensen et al. (2013), who point to a disruption of the traditional business model in consulting. In particular, they suggest that the 'shop' value creation model (problem solving) is likely to be substituted by more chains and repetitive processes in the form of standardized solutions and processes for targeted areas as well as more network based business models. In the context of international PSFs, Breunig et al. (2014)

also identify three types of business models: IT and subscription based testing services, repetitive testing and certification services, and unique services based on hourly rates. While the two former may be defined among the standardized services proposed by Christensen et al. (2013) in consulting, the latter reflect more of ‘value shop’ type of thinking.

3 Methodology

This study is based on a theoretically sampled, theory-building case study (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). The choice of research approach can be justified by the lack of knowledge about how new technologies impact the organization, management and business models of PSFs (von Nordenflycht, 2010). Our case of emerging business models in the legal industry can be defined as unique, revelatory and extreme exemplars (Eisenhardt & Graebner, 2007). Law firms offer an interesting context to investigate the effects of digitalization on knowledge work, as these firms are highly conservative and thus is expected to be slow in terms of technological adaption (Gordon, Shackel, & Mark, 2012).

The data used to explore the emerging business models was collected through twenty semi-structured interviews. At the outset we did neither have prior knowledge about the link between utilization of modern technology and legal services, nor did we have contacts with the most appropriate firms. Our identification of relevant cases and informants thus started quite broadly and followed a snowballing logic (Noy, 2008). Initially, we contacted two high-tech industry specialists based in Silicon Valley with whom we had previous relations. The first was a COO of a major internet corporation and the second was an Intel retiree, with 40 years’ history from Silicon Valley. Subsequently, we also approached two individuals that work with and invest in and facilitate scalability of new web based ventures. We approached these venture capital and innovation incubators communities to learn more about the market conditions and latest trends of the high-tech innovation industry. In addition, we contacted two professors at the Stanford Law School and was introduced to their initiative CodeX: The Stanford Center for Legal Informatics, with particular emphasis on the intersection between new ICT and organizational developments for the law firms of the future. Our first informants also introduced us to a former mayor of Palo Alto, now working as an advisor to tech start-ups, and to the leader of the Palo Alto Bar Association. During these initial interviews we were able to identify several different

firms utilizing new technology to innovatively offer legal services that had started within the last 10 years. Subsequently, thirteen of these were contacted and interviewed over Skype. Each interview lasted between 1-2 hours. Based on the assessments of prior research within business model innovation and technology disruptions, we prepared an interview guide for the semi-structured interviews. In these interviews, the main intention was to facilitate an “informed conversation” (Robson, 1996) and subsequently “not intervene in the informants’ explanations in order to ask all questions prepared in advance.

Table 1: Overview of participants in the semi-structured interviews

Informants	#
High-tech Industry specialists	2
Venture capitalists/Innovation incubators/local municipality officials	3
Silicon Valley based researchers with knowledge of the legal industry	2
Legal professionals related to high tech start-ups	5
Attorneys/Partners in virtual law firms	8
Total	20

Analysis progressed in several stages. First, the interviews were transcribed. Second, the collected data was analysed using data reduction methods and an inductive approach (Gioia, Corley, & Hamilton, 2013). As the core properties of the exploratory categorization of knowledge-based criteria emerged, they were described using memos in Word. We have been analysing the data against important dimensions identified in extant literature on business model innovation, especially with reference to professional service firms.

4 Findings

In describing our findings, we look to the main parts of business models identified above: customers and customer relations, value proposition, payment models, key activities and resources as well as costs. Each of these themes will be presented in the following, to show how digital technologies are affecting the traditional business model of the legal industry. The data shows that some dimensions are more elaborated on by informants. In addition to the dimensions identified, the scalability of the new models are emphasized by informants and be addressed as a final last point. We have excluded the full presentation of our findings in this paper due to the limitations to length. An overview of the findings is shown in table 2.

Table 2: Overview of key implication of law firm digitalization

Relevant quote	Category	Subsidiary dimension	Main Dimension
<i>“Currently we see a more segmented market. Previously big law firms was the norm. One needed a big firm to service all legal needs. There is no longer the same need for these one-size-fits all-law-firms. Now there is a greater need for specialization combined with global presence.”</i>	Need specialization Market segmentation	Specialization	Customer
<i>“International presence is becoming an increasingly important competitive factor.”</i>	International presence Growth Competition Recruitment	Internationalization	
<i>“The marketing or PR function in the social media era is about establishing thought leadership – as a tool to build reputation. Most reputable lawyers now have weekly blogs or they do much information gathering at other lawyer’s blogs. This increases speed; you can now read law updates every morning”.</i>	Social media Testimonials Blogs Thought leadership	Online marketing	Customer relationship
<i>“The clients we attract rather pay 400 than 600 dollar - but do not need us to have a fancy office”.</i>	Obsolete Offices Obsolete papers Obsolete library	Reduction of physical assets	Resources
<i>“We aim at improving the work-life balance for our attorneys.”</i>	Work from home Less travel Flexibility	Work-life balance	
<i>“Each partner is responsible for their own client portfolio and revenue. We have a transparent compensation model, but the essence is that compensation is based on what they bring inn. Each and every one then have their own incentives”.</i>	Responsibility Transparency Eat what you kill	Incentive structure	
<i>“Working virtually is based on working independently, and one has to be able to work in an IT dependent environment”.</i>	Independence IT-reliable	Autonomy	
<i>“To build culture we encourage sharing community stories, private or professional. We also have two meetings a month where we thank each other for work shared. In a way its underpinned by social cohesion: We strongly signal that everyone should take part in the sharing and collaboration culture we are building”.</i>	Sharing Social cohesion Physical meetings Collaboration	Culture	

<i>"There is no need for expensive, fancy or tailor made systems."</i>	Standard systems	Technologic system costs	Cost
<i>"We seek to organize efficiently, reducing overhead and utilizing resources the best way we can. This is done by minimizing formal hierarchy and legal assistants. We do have physical offices, aimed at meetings with clients. But in reality the work is where you have your computer".</i>	Cost of assistants Cost of offices	Physical asset costs	
<i>"We have weekly online meetings and regularly different webinars."</i>	Online meetings Webinars	Virtual activities	Activities
<i>It is important also to meet – 3 times a year we have firm-wide gatherings. At the agenda of these gatherings are often issues related to business development. However, these gatherings also works to get introduced to each other. We also have a party, people need to laugh to trust each other. Once you have established a personal relationship - you do not need face-to-face interaction every day – you can maintain the relationship and collaborate virtually".</i>	Firm wide gathering Party Face-to-face interaction	Physical activities	
<i>"But more importantly, this structure is more efficient, that enables us to offer better services. It's not that clients care that much if we are a virtual organization, they don't demand that – but they demand the best service and competence at offer".</i>	Better services Better resources	Improved value propositions	Customer value proposition
<i>"They need to know what they are getting into. So increasingly, we are moving away from the "paid-buy the hour" norm of the profession".</i>	Predictability of pricing	Pricing structure	Payment model
<i>"Before a specialized niche lawyer had to be in a big firm, now it is possible to utilize "long-tail" strategy to offer specialized services globally, market it, and deliver through virtual interaction".</i>	Internationalization Delivery	Virtual growth potential	Scalability

5 Concluding discussion

The findings above suggest that there are some key issues that stand out in the findings: (1) Cost and lawyer flexibility as main drivers of business model innovation through technology; (2) rethinking of business models in law (3) enacted technologies as driver of change; and (4) digitalization as a way to overcome resource trade-offs. Each of these contributions will be treated in the following.

5.1 Cost and flexibility as main drivers of business model innovation.

While the potential of technology to add value to clients of legal services seems huge – the current use of technology is primarily oriented around cost reduction, and the degree to which PSFs focus on offering increased value propositions seems limited. The core business of law services is largely the same online as they are in traditional law firms. Thus, the core nature of value creation seems to a limited degree to have changed. Rather, it is the cost, the communication and marketing of the services, the specialization of each law firm and the scalability that has primarily been affected. Examples of firms that utilize the cost orientation is Rimon, Bliss and Axiom. These firms all emphasize technology to connect lawyers as well as lawyers and clients and leverage resources in a flexible manner that enable lawyers to have work-life balance. While the former firm offers actual law services with the support of virtual tools, the latter have chosen a model where they are not a law firm, but facilitate client access to temporary in-house lawyers. Still, Axiom has further developed this model towards an outsourcing model, where they combine legal services and temps to ensure efficient use of legal resources in client organizations.

In addition to these cost oriented firms – that seem to dominate the use of digital technology in law - we also have identified some pioneer firms that aim to utilize technology not only for cost reduction in traditional services, but also aim to disrupt legal services as such through using technology to add value to clients. Examples of such firms are Rocket Lawyer and Quicklegal. These firms offer traditional law services with a virtual interface towards the client.

Finally, services have been introduced on the market that use technology as a platform to automate certain rudimentary legal services that are rather standardized processes. An example is Trademarkia that simplify the process of registering a trademark. However, there are other firms that have taken a similar role with the area of divorce and the legal work of starting a company.

5.2 Alternative business models in law

Christensen et al. (2013) refer to three different business models in law. However, shop structures seem to still be dominating the law industry. These are the models that we find in the virtual law firms and at the heart of the temp-firms – in terms of the activities that are at the core of what they are doing. While the network facilitates that access to the lawyers,

the fundamental value creation is done by the particular lawyer with a particular client. So, while Christensen points to the network based model as a model of law firm value creation as different from the shop – the core nature of value creation across network based models and traditional law shops are largely the same. The technology in these models are not disrupting the nature of value creation in law – solving customer problems. Axiom is taking alternative point of view and integrating the networked and solution shop model to propose an integrated value proposition as more of an outsourcing service. The automated model that Christensen et al. identify can be found in the automated services such as Trademarkia mentioned above. The future of artificial intelligence will give more insight on the future of automated models. While Christensen et al.’s suggested business models in law seem to be valid, this paper has identified multiple network based models in the form virtual firms and temps, with very different business models. Also, the outsourcing business model of Axiom has not been discussed by Christensen et al. Thus, more research is needed to further understand the subsidiary categories of business models in law.

5.3 Enacted technology as a driver of change

The paper illustrates that the main driver of business model is the application of technology rather than the technology itself. The leading digital law firms to a limited degree have invested extensive money in developing their business model. Rather, changes are primarily related to the use of “off-the-shelf” technology. This is captured by Fountain (2004) in his distinction between enacted and objective technologies – where the research above suggest that business model innovation is largely driven by enacted changes.

5.4 Digitalization as a way to overcome resource trade-offs

The traditional way of organizing law firms involve trade-offs in leverage and types of resources, as proposed by Löwendahl (1992 1997) and Maister (1993). Network based models, that demand that less of the law firm’s money to be dedicated to physical assets largely imply that these resource trade-offs no longer apply. Thus, it is possible for law firms to chose alternative strategies than what they have done in the past.

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