

# Using Service Logic Business Model Canvas in Lean Service Development

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## Abstract

**Purpose.** The purpose of this paper is to propose an approach for using Service Logic Business Model Canvas in the lean service development, and visa versa. So far, the literature on business logics for service or business models does not utilize the ideas of lean development. There is a clear knowledge gap in the intersections of the three research areas: business logics for service, business models, and lean development. The present article addresses this knowledge gap.

**Design/methodology/approach.** The present conceptual paper is based on an extensive literature analysis on business logics for service, as well as business models, and lean development.

**Findings.** The paper proposes a model of lean service development. It integrates the model in the process of using the Service Logic Business Model Canvas.

**Research limitations/implications.** The paper shows how a new service is iteratively developed through several improvement rounds into a final business model, it shows the important role of rapid testing and learning in the iterative service development process, it supports the implementation of the fundamental philosophy of business logics for service in business development, and encourages using multiple service design methods in the service development, if needed.

**Practical implications.** The ideas of lean or agile development have been used for a long time in software development. In addition, the ideas were later adopted in the business development of startups. Agile and lean development principles have dramatically changed the managerial thinking and practice in these areas. The present paper develops an application of these approaches to be used in service development, business model development, and implementation of business logics for service in practice.

**Originality/value.** This paper contributes by (1) developing and introducing the lean service development model, and by (2) integrating it to the process model of using Service Logic Business Model Canvas

**Keywords.** Business model, service-dominant logic, service logic, lean development, lean enterprise, service innovation, agile business development

## Introduction

Service Logic Business Model Canvas (Ojasalo and Ojasalo, 2015a) was introduced in order provide a business model framework that takes into account the principles of the contemporary business

logics, namely Service Dominant Logic (Vargo and Lush, 2004), Service Logic (Grönroos, 2006), and Customer Dominant Logic (Heinonen et al., 2010). It is a modified version of Osterwalder and Pigneur's (2010) Business Model Canvas, which is one of the most popular business model frameworks at the moment.

The ideas of lean development became popular in agile software development in the beginning of 2000 (Schwaber and Beedle, 2001). Agile software development is based on iterative and incremental process, which continuously adapts and adjusts to the collective skills and experience of developers, changes in service/product requirements, and changes in the development and targeted operating environments. Frequent and face-to-face communication and feedback from users during the development process, simplicity, and ultimately solutions that satisfy customer needs are the cornerstones of agile software development (Turk et al., 2006). Similarly, somewhat later the idea of iterative incremental business development with testing and experimentation with users and customers was adopted in the context of startups and SMEs. Blank (2006) introduced his Customer Development Model for startups, which is based on iterative and incremental product development and feedback from customers. This approach assumes "customers and market is unpredictable, and we will screw it up several times before we get it right". Going backwards in the innovation process is not considered a failure. Instead, developers spend a great deal of time in the field listening, discovering how customers operate and behave, what their key problems are, how the present version of the solution works, and how it affects the customer satisfaction and sales. A great deal of time is devoted to analyzing the "lessons learned" and "what didn't work" (Blank, 2006). It should be noted that, the ideas of lean development are discussed in the literature, in addition, under various other terms and concepts, such as "agile development", "lean innovation", "lean enterprise", "lean startup", and "lean business development". We use the term "lean development" in this paper.

The existing literature on business logics for service or business models does not utilize the ideas of lean development. Indeed, there is a clear knowledge gap in the intersections of the three research areas: business logics for service, business models, and lean development. The present article addressed this knowledge gap. The purpose of this paper is to propose an approach for using Service Logic Business Model Canvas in the lean service development, and visa versa. This conceptual paper is based on literature analysis on business logics for service, business models, and lean development. The rest of this paper is organized as follows. First, it discusses the nature business logics for service, the ideas of lean business development, and the Service Logic Business Model Canvas. Then, based on the literature analysis, this paper proposes a model of lean service development. After that, it draws the final conclusions.

### **Business logics for service**

In this section, "business logics for service" refer to three new business logics emerged and dramatically increased their popularity during the past 10 years. These logics emphasize customer value and service. The business logics for service described here are (a) Service-dominant logic (Vargo and Lusch, 2004), (b) Service logic (Grönroos, 2006), and (c) Customer dominant logic (Heinonen et al., 2010).

The academic discussion has over the past ten years strongly shifted away from goods-dominant logic and the traditional thinking of sequential value creation process to new business logics—business logics for service—that emphasize customers' active role in value creation (e.g. Vargo and Lusch, 2004; Grönroos, 2006; Heinonen et al., 2010). The goods dominant logic assumes that people exchange for goods, goods are operand resources and end products, the customer is the recipient of goods, value is determined by the producer and embedded in goods and defined in terms of exchange-value, the customer is an operand resource, and wealth consists of owning, controlling, and producing tangible resources (Vargo and Lusch, 2004). The new business logics for service view the concept of value and customer's role significantly differently.

According to *Service Dominant Logic* (Vargo and Lusch, 2004; 2008), there is no value until the offering is used and experienced by the customer. The concepts of value-in-use and value-in-context have replaced the traditional concept of value-in-exchange. Thus, value is always uniquely and phenomenologically determined by the beneficiary (.e. customer, user). In other words, value is idiosyncratic, experimental, contextual, and meaning laden. The Service Dominant Logic also sees that company can offer value propositions and value is always co-created. Consequently, the customer is always a co-creator of value (Vargo and Lusch, 2004; 2008). The terms operand and operant resources are used in Service Dominant Logic. Operand resources are those on which an operation or act is performed to produce effect, while operant resources are resources that produce effect (Constantin and Lusch, 1994). The Service Dominant Logic holds operant resources as primary, because they are the producers of effects. They are the fundamental source of competitive advantage. A customer is primarily considered as an operant resource, and only occasionally functioning as an operand resource. People exchange to acquire specialized competences (knowledge and skills), or service. Knowledge and skills are also operant resources. The company cannot deliver value, but only offer value propositions. Goods are a distribution mechanism for service provision. This means that goods derive their value through use and the service they provide. The Service Dominant Logic also considers that service (singular), which is the application of specialized skills and knowledge, is the fundamental basis of exchange and that all economies are service economies. Still, because service is provided through complex combinations of goods, money, and institutions the service basis of exchange is not always apparent, but rather masked by the indirect exchange (Vargo and Lusch, 2004; 2006; 2008).

The foundational premises of Service-Dominant Logic are (ibid.):

- Service is the fundamental basis of exchange
- Indirect exchange masks the fundamental basis of exchange
- Goods are a distribution mechanism for service provision
- Operant resources are the fundamental source of competitive advantage
- All economies are service economies
- The customer is always a co-creator of value
- The enterprise cannot deliver value, but only offer value propositions
- A service-centered view is inherently customer oriented and relational
- All social and economic actors are resource integrators
- Value is always uniquely and phenomenologically determined by the beneficiary

According to the *Service Logic* (Grönroos, 2006), service is are processes that consist of a set of activities which take place in interactions between a customer and people, goods and other physical resources, systems and/or infrastructures representing the service provider and possibly involving other customers, which aim at solving customers' problems. Suppliers and service providers do not create value in their planning, designing and production processes, but the customers do it themselves. This happens in their own value-creating processes, in other words, in their daily activities when products are needed by them for them to perform activities. Suppliers only create the resources or means required to make it possible for customers to create value for themselves. When suppliers and customers interact, they are engaged in co-creation of value; however customers may also be also sole creators of value. Customers always are the value creators, during interactions with its customers, on top of being a value facilitator, the supplier gets opportunities to co-create value with its customers in a process of joint value creation (Grönroos and Ravald, 2011). Value creation refers to customers' creation of value-in-use; co-creation is a function of interaction (Grönroos and Voima, 2013). Goods are resources like other physical objects. The company makes them available for money so that customers in their own processes will be able to use them in a way that creates value for them, as individuals, households or organizations (Grönroos, 2006). The role of supplier is to be a value facilitator in providing customers with a foundation for their value creation in the form of resources. Resources include goods, services, information or other resources. The role of customer is

to be the value creator during value-generating processes (consumption) where other (necessary) resources available to customers and skills held by them (customer's value foundation) are added and where value fulfillment takes place (Grönroos, 2008). The Service Logic is based on the idea that potential value for customers is embedded in all types of resources used by customers and that such resources are used as service that renders value for them (Gummesson, 1995; Grönroos and Ravald, 2011).

The main ideas of Service Logic are (Grönroos, 2006; 2008; Grönroos and Ravald, 2011; Grönroos and Voima, 2013):

- Value creation is defined as the customer's creation of value-in-use
- The customer creates value, and the firm facilitates value creation
- Services are processes where a set of company resources interact with the customers so that value is created or emerges in the customers' processes
- Firms and customers are co-producers of the service and co-creators of value
- The firm facilitates processes that support customers' value creation
- Goods are value-supporting resources and services are value-supporting processes
- Before customers' own value creating process, only potential value exists, e.g. in form of company's planning, designing, and production processes
- Service marketing is about inviting customers to use the service processes by making promises about value that can be expected to be captured from the service, and to implement these processes in a way that allows customers to perceive that value is created in their processes (promise keeping through value fulfillment)
- Goods become service-like

*Customer-Dominant Logic* distinguishes between provider-dominant logic and customer-dominant logic (Heinonen et al., 2010). It applies customer focus on service, instead of service provider focus. The fundamental issues of Customer Dominant logic are co-creation of service, value-in-use, and customer experience. When it concerns co-creation, the difference between provider- and customer-dominant logic is explained in terms of involvement and control. In the case of value-in-use, the difference between provider- and customer-dominant logic is explained with visibility between customer and company. When it concerns customer experience, the difference is explained with scope and character. In provider-dominant logic, the customer is involved in co-creation, however in Customer-Dominant Logic the company is involved in customer activities. In provider-dominant logic the company controls co-creation, while in Customer-Dominant Logic the customer controls the value creation. In provider-dominant logic the focus is on visible interactions, while in Customer-Dominant Logic also invisible and mental actions are considered. In provider-dominant logic customer experience is formed within the service, but in Customer-Dominant Logic customer experience merges in customer's life. In provider-dominant logic the nature of customer experience is extraordinary and special, while in Customer-Dominant Logic it is also mundane and in everyday life (Heinonen et al., 2010).

The main principles of the Customer-Dominant logic are (Heinonen et al., 2010):

- Instead of service provider focus, it applies a customer focus to service
- Company is involved in customer activities
- Customer controls value creation
- Invisible and mental actions are considered, not just visible interactions
- Customer experience emerges in customers' lives
- Customer experience is mundane and everyday, not just extraordinary and special

## Lean Business Development

This section explains the principles of lean development, or lean innovation (Blank, 2006, 2013; Schipper and Swets, 2010; Ries, 2011; Maurya, 2012; Cooper and Vlaskovits, 2013; Ojasalo and Ojasalo, 2015c). Blank (2006) introduced the customer development model as a “path to epiphany.” It is an iterative model including the phases of customer discovery, customer validation, customer creation, and company building. The major difference between this model and the traditional product development model is iterative. According to him,

“only in business school case studies does progress with customers happen in a nice linear fashion. The nature of finding a market and customers guarantees that you will get it wrong several times. Therefore, unlike the product development model, the Customer Development model assumes that it will take several iterations of each of the four steps until you get it right.” (Blank, 2006, p. 15)

The ideas of the customer development model are central with the concepts “lean development”, “lean innovation”, and “lean startup.” The principles of the lean business development are next explained, based on Ries (2011). In his approach, the process is iterative and cyclical, and entails 3 steps: build, measure, and learn. The purpose of each iteration round is to bring the product or service at more developed level. The aim is to minimize the total time through the loop. The first step of to enter the build phase as quickly as possible with a minimum viable product. The minimum viable product is that version of the product that enables a full turn of the build-measure-learn loop with a minimum amount of effort and least development time. It lacks many features that may prove important later on. The impact of minimum viable product must be measurable. Most importantly, the impact must be measured, not just inside the company by engineers or designers, but also with potential customers to see their reactions. Next, in the measure-phase, the most important challenge is to determine whether the product development efforts are leading to real progress. Instead of using vanity metrics, the metrics should be valid from the business viewpoint. It does not matter if the development project is on time and on budget, if company is building something that nobody wants. The metrics need to be actionable, accessible, and auditable. The metrics is actionable when it demonstrates the cause and effect. It is accessible when it is understandable by those who are supposed to make changes in the product or service being developed. It is credible when it ensures the employees, for example on the fact that the product is insufficient and requires improvements. Finally, the learning-phase represents the most vital phase of the loop. The company must learn the truth about which elements of the strategy are working to realize the vision and which are not. The company must learn what customer really want, not what they say they want or what the company thinks they should want. The company must discover whether they are on a path that will lead to growing sustainable business. The company must decide whether pivot or preserve the original strategy. If the company realizes that some original assumptions or elements of the strategy are false, it should make a major change in the strategy (Ries, 2011).

Maurya (2012) extended the lean approach by showing and visualizing various methods how to implement lean development philosophy in practice. Engaging customers early in the innovation process, speed, field experimentation, trial, errors, continuous learning, and incremental improvement are key elements of his (ibid.) report. According to him (ibid.), life is too short to build something nobody wants. Listening to customers is crucial and the suitable methods for that purpose. Release early, release often-approach is the key of lean development.

Blank (2013) explained the lean startup concept further. According to Blank (2013), the idea of lean start-ups or lean business launch is based on the observations from various failures with traditional way to plan and launch a new business. Traditionally, it is considered that the development of a new business and start-up begins with creating a business plan. The business plan is a research exercise written in isolation at a desk before an entrepreneur has even begun to build the product or service. Writing a business plan is based on the assumption that it is possible to anticipate most of the

unknowns of a business in advance. However, business plans rarely survive first contact with customers, and no one besides venture capitalists require a business plan. Based on this, Blank (2013) argues that, a business plans, which is a static document, is usually fiction, and dreaming it up is almost a waste of time. Instead of big and ready master plan, successful start-ups go quickly from failure to, and adapt, iterate, and improve their original ideas as they continually learn from their customers. Lean approach is based on the following foundations. Firstly, founders summarize their assumptions on the business in a framework called business model canvas. Instead of using months in writing a business plan, entrepreneurs quickly summarize their best hypotheses, in other words guesses, by using the Osterwalder and Pigneur's (2010) business models canvas. Secondly, lean start-ups go out of the building to their customers and other stakeholders and start testing their guesses. They test all relevant elements of the business model, such as product or service features, pricing, channels, and affordable customer acquisition strategies. Based on the input, they revise their assumptions and start the cycle all over again. The ideas are refined through improvements in an iterative and incremental process, as it comes visible which ideas work and which do not. According to Cooper and Vlaskovits (2013), a learning organization runs experiments to reduce market and technical risk, test new ideas, and optimize results, and it interacts with customers to assess whether customer problem-solution assumptions are correct. The third fundament is agile development, which takes place together with customers and eliminates wasted time and resources. Start-ups create the "minimum viable product". As explained above, a minimum viable product has just those core features that allow the product to be deployed to potential customers for feedback, and no more (Ries, 2011). This iterative and incremental process is called quick, responsive development, where the minimum viable product is improved through repeated cycles.

Blank (2013, p. 69) summarized the differences between lean startup business development vs. traditional business development as follows:

- Strategy
  - In lean: based on *business model*, vs. in traditional: based on *business plan*
  - In lean: *hypothesis-driven*, vs. in traditional: *implementation-driven*
- New-product-Process
  - In lean: based on *customer development*, vs. in traditional: based on *product management*
  - In lean: the development team *gets out the office and tests hypotheses*, vs. in traditional: it *prepares offering for market, following a linear, step-by-step-plan*
- Engineering
  - In lean: based on *agile* development, vs. in traditional based on *agile* or *waterfall* development
  - In lean: the *product is built iteratively and incrementally*, vs. in traditional: it is built *iteratively*, or *fully specify the product before building it*
- Organization
  - In lean: based on *customer and agile development teams*, vs. in traditional: based on *departments by function*
  - In lean: employees are *hired for learning, nimbleness, and speed*, vs. in traditional they are *hired for experience and ability to execute*
- Financial reporting
  - In lean: *metrics that matter*, vs. in traditional: *accounting matters*
  - In lean: based on *customer acquisition cost, lifetime customer value, churn, and viralness*, vs. in traditional: based on *income statement, balance sheet, cash flow statement*
- Failure
  - In lean: failure *is expected*, vs. in traditional failure *is exception*
  - In lean: failures are *fixed by iterating on ideas and pivoting away from ones that do not work*, vs. in traditional: they are *fixed by firing the executives*

- Speed
  - In lean speed *is rapid*, vs. in traditional speed *is measured*
  - In lean: the operation is based on *good-enough data*, vs. in traditional: the operation is based on *complete data*

Maurya (2012), Blank (2013), and Cooper and Vlaskovits (2013) keep Osterwalder and Pigneur's (2010) business model canvas as a central tool for lean startup and SME business development. It summarizes the central hypotheses concerning the business and product or service being developed during the iterative and incremental business development process. Thus, the business model canvas has a crucial role for the success of the lean startup strategy.

Startup is not a smaller version of a large corporation. Established companies know their market, but startups do not know who their customers are, what they want, or how to get them to pay for it. They need a different way to bring new product to market. Indeed, the lean development approach was originally designed for startups (Blank, 2006). But the lean startup methods may not be appropriate for every situation. According to (Owens and Fernandez, 2014), the lean startup methods fit poorly to the following situations:

- Legacy projects, the projects that are already in motion
- Products that have reached product/market fit
- Products that must match preexisting specification
- Products aimed at regulated industries

### **Service Logic Business Model Canvas**

The development process, elements, and application of Service Logic Business Model Canvas (Ojasalo and Ojasalo 2015a: 2015b) are explained next.

*How was the new canvas developed?*

The Service Logic Business Model Canvas described in this paper was developed in an empirical research based on interactive research (Gummesson, 2001, pp. 38-41) and constructive method (Kasanen et al., 1993).

The study applied interactive research approach (Gummesson, 2001) where the empirical data is generated in interaction with researchers and relevant actors in respect of the purpose of the study. The process is a continuous interplay between data from interaction, existing theories from the literature, and researchers' interpretation. A new Service Logic Business Model Canvas was developed as a result of these interwoven elements.

The research process took 18 months and consisted of 15 steps. The interaction in which data were generated and understanding increased consisted of ideation workshops. The process included twelve interactive workshops in which data from pre-understanding, interaction, interpretation and increased understanding, and existing theories were interwoven together. The research process was conducted in Finland and related to the activities of the Finnish Service Alliance. The other author of this paper planned the workshops beforehand and facilitated and documented them. The workshops were documented by writing notes during and after each workshop, by collecting all the raw material produced by the participants during the workshops (notes, writings, and drawings made by the participants), by taking photographs, and by recording the most important parts of the workshops. After each workshop, the business model canvas, which was the central researched object, was further developed based on the data and increased understanding generated in the interactive workshop. The actors of the workshops were researchers and practitioners. In this case, "researchers" include academic researchers from seven universities and other research related

organizations. They were professors, senior researchers, doctoral students and coordinators of large national research programs. “Practitioners” refer to representatives from companies and other organizations. “Practitioners” also include master level adult students who conduct their studies alongside their full time job in companies and other organizations. 18 researchers and 106 practitioners participated in this process. Thus, altogether 124 persons were involved in the research process. The data were qualitative in nature, and its subjective interpretation took place during and after the interactive workshops both individually and collectively. In general, the emphasis shifted from theoretical thinking and model development towards practical model development and testing (Ojasalo and Ojasalo, 2014).

As the outcome of the empirical research process, a new tool was developed, called Service Logic Business Model Canvas (Ojasalo and Ojasalo, 2015a). The new canvas is a modified version of the original Business Model Canvas (BMC) introduced by Osterwalder and Pigneur (2010). The Service Logic Business Model Canvas is explained next.

#### *Elements of the Service Logic Business Model Canvas*

The Service Logic Business Model Canvas (Figure 1) is composed of 9 blocks, like the original Osterwalder and Pigneur’s (2010) BMC. In each block of the canvas, both the provider viewpoint (“From our point of view”) as well as the customer viewpoint (“From customer point of view”) must be considered. This is the most essential change to include the customer-dominant thinking in the whole model. The customer’s viewpoint is added to make companies explicitly acquire a deep insight into their customers’ activities, practices and experiences. In the original BMC, the guiding questions in each block easily lead companies to think only from their own point of view, even though a question would be such as “Which customer needs are we satisfying?” The present framework is much better in line with Heinonen et al. (2010, p. 535) who argue that “customer’s understanding of service use is different from the service provider’s”. In line with this, the study by Strandvik et al. (2012) clearly shows that customers’ and suppliers’ views are likely to differ significantly (see also Allen et al., 2005). An obvious reason for the conflicting viewpoints might be that many issues related to value-in-use are often invisible to the company while value emerges in customers’ everyday (business) processes (see Heinonen et al., 2010). Indeed, all the elements of a business model should be carefully analyzed from both the company’s and the customers’ viewpoint – based on authentic and deep customer insight.

The present framework is applied individually to each customer profile representing a customer group with similar logics. This makes it possible to focus on each customer profile’s specific contexts at the time. As mentioned earlier, the development of a business model is not a linear and straightforward process, but instead it is iterative and incremental, and new ideas are likely to emerge. Indeed, a separate business model (or sub model) with all its elements should be designed to each customer profile. However, the present framework is not applied in isolation from models for other profiles. There may be strong interconnections between profiles’ specific business models, consequently the development of one model affects the development of another. Such links between the business models (or sub models) may be numerous and very different in nature (Ojasalo and Ojasalo 2015a).



<p><b>Key Partners</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• Who are our key partners?</li> <li>• What are the roles of our partners?</li> <li>• What resources do we need from our partners?</li> <li>• How do the partners benefit from the cooperation?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• How does the customer experience our partners?</li> <li>• What kind of partnerships does the customer have and how should they be taken into account?</li> </ul> <p style="text-align: right;">⑦</p>	<p><b>Key Resources</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• What skills and knowledge do we need?</li> <li>• What other material and immaterial resources and tools are required?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• What skills and knowledge is required from the customer's side?</li> <li>• What other customer's material and immaterial resources and tools are required?</li> </ul> <p style="text-align: right;">⑥</p> <p><b>Mobilizing Resources and Partners</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• How do we coordinate multi-party value creation?</li> <li>• How do we utilize and develop partners and resources?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• How can the customer utilize and develop partners and resources?</li> </ul> <p style="text-align: right;">⑧</p>	<p><b>Value Proposition</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• What value are we selling?</li> <li>• What are the elements of our offering?</li> <li>• What is unique in our offering?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• What value is the customer buying?</li> <li>• What are the elements of customer needing?</li> <li>• Which customer's challenges and problems need to be solved?</li> </ul> <p style="text-align: right;">②</p>	<p><b>Value Creation</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• How is our offering embedded in the customer's world?</li> <li>• How can we facilitate the customer to reach their goals?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• How does the value emerge in customer's practices (also from mental and emotional experiences)?</li> <li>• How are customer's long term benefits accomplished?</li> </ul> <p style="text-align: right;">③</p> <p><b>Interaction and co-production</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• How can we support customer co-production and interaction between us and the customer?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• What are customer's activities during the use and different use contexts?</li> <li>• What are the customer's mental models of interacting with us?</li> </ul> <p style="text-align: right;">④</p>	<p><b>Customer's World and Desire for Ideal Value</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• How do we get a deep insight and holistic understanding of customer's world (context, activities, practices, experiences), their future strategies, and customer's customers' world?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• Why does the customer buy?</li> <li>• What kind of benefits does the customer aspire?</li> <li>• Functional</li> <li>• Economic</li> <li>• Emotional</li> <li>• Social</li> <li>• Ethical</li> <li>• Symbolic</li> <li>• If there were no limits, what would be the customer desire for ideal situation and world?</li> </ul> <p style="text-align: right;">①</p>
<p><b>Cost Structure</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• What are the costs inherent in our business model?</li> <li>• What are our other sacrifices?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• What costs and other sacrifices are required from the customer?</li> </ul> <p style="text-align: right;">⑨</p>		<p><b>Revenue Streams and Metrics</b></p> <p><b>From our point of view:</b></p> <ul style="list-style-type: none"> <li>• What is our earnings logic and how is our financial feedback generated?</li> <li>• How can we apply customer value-based pricing?</li> <li>• What else valuable do we get than money?</li> <li>• What are the key performance metrics of our business success?</li> </ul> <p><b>From customer point of view:</b></p> <ul style="list-style-type: none"> <li>• For which benefits is the customer really willing to pay and how?</li> <li>• What is the financial value that the customer gets?</li> <li>• What are the key performance indicators of customer's business and how are we following them?</li> </ul> <p style="text-align: right;">⑤</p>		

Figure 1. The Service Logic Business Model Canvas (Ojasalo & Ojasalo, 2015a)

The first block “Customer’s World and Desire for Ideal Value” creates a deep insight and holistic understanding of the customer’s world. It goes beyond the actual business that the business model is describing, and here the customer’s life is analyzed in depth. It is highly important, before moving to the value proposition and other blocks of a business model, to get a deep insight and holistic understanding of the customer’s world. Explicit, implicit, and latent needs are analyzed here. Latent customer needs are those that generate fuzzy and implicit expectations, and may be an opportunity or a pitfall for customer experience, depending on how they are managed (Ojasalo, 2001). “Value Proposition” refers to f suggestions and projections of what impact on their practices customers can expect from the proposition (Grönroos and Ravald, 2011). This block is based on the deep customer insight described in block 1. The block “Value Creation” focuses on what customers are doing with the value proposition to reach their goals. This is about understanding and planning how the company’s world is related to the customer’s world. It is also important to understand and plan for both the short-term and long term customer benefits (Ojasalo, 2000). The “Interaction and Co-production”-block is about the customer’s participation in the company’s activities and utilization of its resources. The block “Revenue Streams and Metrics” addresses the company’s earnings logic, financial feedback, including profits, market share, cash flow, etc., and other benefits, such as customer, brand, network equity, etc. The “Key Resources”-block focuses on operant resources. They are the dynamic, often intangible resources that act upon other resources (Vargo and Lusch, 2004; Constantin and Lusch, 1994). Specialized competencies (knowledge and skills) of both the company and the customer are most the important operant resources. The “Key Partners”-block analyzes primarily those partners beyond a company-customer relationship that are directly required in value creation, and they are typically suppliers and other network partners. The “Mobilizing Resources and Partners”-block deals with the utilization and development aspects of resources and partners, and integration of resources. Finally, the “Cost Structure”-block analyzes both the company’s and the customer’s costs and other sacrifices related the business model (Ojasalo and Ojasalo 2015a).

#### *The process of using Service Logic Business Model Canvas*

The process of applying the Service Logic Business Model Canvas (Figure 2) includes three main phases (Ojasalo and Ojasalo, 2015a).

1. A light application version of the Service Logic Business Model Canvas
2. Applying service design tools
3. The full application version of the Service Logic Business Model Canvas for targeted customer profiles

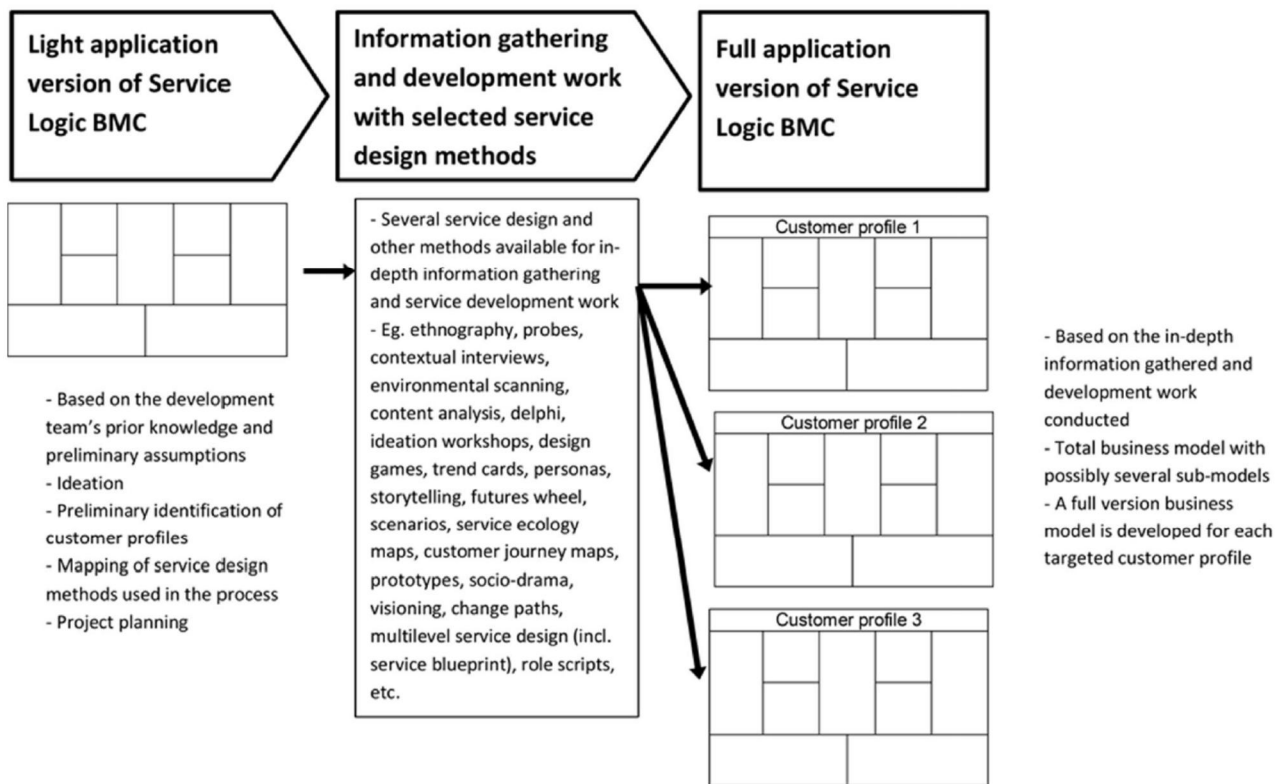


Figure 2. The process of Using Service Logic Business Model Canvas (Ojasalo and Ojasalo, 2015a)

The light application version (Phase 1) of the Service Logic Business Model Canvas follows the idea of “lean business development” or “rapid prototyping” (cf. Blank, 2013; Maurya, 2012). The canvas is used quickly, for example in a half a day workshop with the development team, for preliminary idea development and testing. This helps in mapping the service design tools required in the next phase as well. Conducting the light version exercise also helps in planning the service innovation process. It helps in mapping and deciding on what service design tools should be used in the process. Also, it helps in estimating how much time and other resources are needed. In general, the light version helps in planning the whole innovation project. It also makes the development team aware of what kinds of outcomes are expected at the end of the process. Of course, the development team has to be willing and capable to change their initial assumptions and ideas in the next phases of the development process, in the full application version. The light application can be used in the early stage of the innovation process, or when there is no time or resources to apply the full version. SMEs and start-up companies that do not have much resources or developed networks may find it particularly useful to apply the light Service Logic Business Model Canvas version.

The application of service design tools (Phase 2) includes the selection and use of relevant service design methods. This phase includes acquiring a deep customer insight. The main goal is to understand the customer's world and what represents value to the customer, and how the provider company most effectively can facilitate the customer's value creation. In this phase, several case-specific co-creative and customer involving service design tools can be used (see Table 1).

Table 1. Service Design Methods for Service Logic Business Model Canvas (Ojasalo and Ojasalo, 2015a; based on Ojasalo et al., 2015)

Blocks of Service Logic Business Model Canvas Examples of Service Design and Foresight Tools	① Customer's World and Desire for Ideal Value	② Value Proposition	③ Value Creation	④ Interaction and co-production	⑤ Revenue Streams and Metrics	⑥ Key Resources	⑦ Key Partners	⑧ Mobilizing Resources and Partners	⑨ Cost Structure
Ethnography, probes	●	●	●	●	●	●	●	●	●
Contextual interviews	●	●	●	●	●	●	●	●	●
Environmental scanning	●	●					●		
Content analysis	●	●							
Delphi	●	●							
Ideation workshops, design games	●	●	●	●	●	●	●	●	●
Trend cards	●	●	●						
Personas	●	●	●	●					
Storytelling	●	●	●	●					
Futures wheel	●	●						●	
Scenarios	●	●	●	●	●	●	●	●	●
Service ecology maps							●	●	
Customer journey maps			●	●	●	●	●		●
Prototypes		●	●	●					
Socio-drama				●		●	●	●	
Visioning		●	●		●			●	
Change paths								●	
Multilevel service design (incl. service blueprint)				●	●	●	●	●	●
Role scripts				●		●	●	●	

### Proposal for a Model of Lean Service Development

According to Schipper and Swets (2010), six principles make development both innovative and lean. They are (1) identify and fill user gaps, (2) use multiple learning cycles, (3) stabilize the development process, (4) capture knowledge, (5) use rapid prototyping, and (6) apply lean management principles including learning cycles and visual boards. The whole development process (Figure 2) consists of several repeated and incremental development cycles. According to Blank (2013), each cycle consists of planning, requirements, analysis and design, implementation, testing, and evaluation. Each development cycle results in minimum viable product which is deployed for customer feedback. Based on the literature on lean development (Blank, 2006; 2013; Schipper and Swets, 2010; Ries, 2011; Maurya, 2012; Cooper and Vlaskovits, 2013; Owens and Fernandez, 2014), we propose a model of lean service development (Figure 3). It consists of the following phases: need & problem identification, solution idea(s), solution design, experimenting & testing with users and other stakeholders, evaluation, possible implementation, and possible abandon.

- *Deep customer understanding & Co-design.* The whole process of lean service development is guided by the attempt to achieve deep customer understanding and co-design. This refers to understanding the customer's everyday life, each detail of it, and the world they live in or operate their business.
- *Need & Problem identification.* The development starts with the preliminary identification of customer needs and problems. In this phase, the purpose is to scope the need or problem which is addressed in terms of Service Logic Business Model Canvas.

- *Solution idea(s)*. Next, one or several ideas for a solution are proposed. If there are several solution ideas, the most promising is chosen for design.
- *Solution design*. The solution design consists designing a solution that is developed enough to be reasonably tested with users and/or other relevant stakeholders of the service. The solution is gets an incremental improvement, and results in the next level version. This can also be called as minimum viable product, minimum viable service, or service prototype.
- *Testing & Experimenting with users and other stakeholders*. Next, current version of the solution is tested and experimented with authentic users. The purpose is to gain deep customer insight on how the proposed solution responds to the needs and problems. This is field work. In addition to users, this phase may involve any other relevant stakeholders of the solution.
- *Evaluation*. In this phase, all the learnings from the previous phase are carefully analyzed. Then, the decision is made on how to proceed in the development process. Three options are available. First, the process may go back to the development phase, in which the experiences from testing and experimenting are used to improve the current version of the solution. Second, the solution idea may turn out to be ready for launch and implementation. Third, it may turn out to be too inappropriate for its purpose and further development.
- *Rapid testing and learning loop*. Rapid testing and learning loop refers to the repeated sequence of the phases Solution design, Testing & Experimenting with users and other stakeholders, and Evaluation. This loop is in the heart of the lean service development approach. It makes the service innovation process “lean.”
- *Implementation, launch*. This phase is about launching and implementing the developed service. The service solves the targeted problem and generates revenues to the service company.
- *Abandon*. When certain solution idea is abandoned, the process may move again to the Solution idea(s)-phase, and another idea may be taken for further development. The learnings from the previous attempt are utilized in the next one.
- *Identification of new customer needs and problems*. It is likely that new customer needs and problems are identified based on the increased customer understanding and co-design. They start a new development cycle or affect the on-going. They represent new business opportunities to the service company.

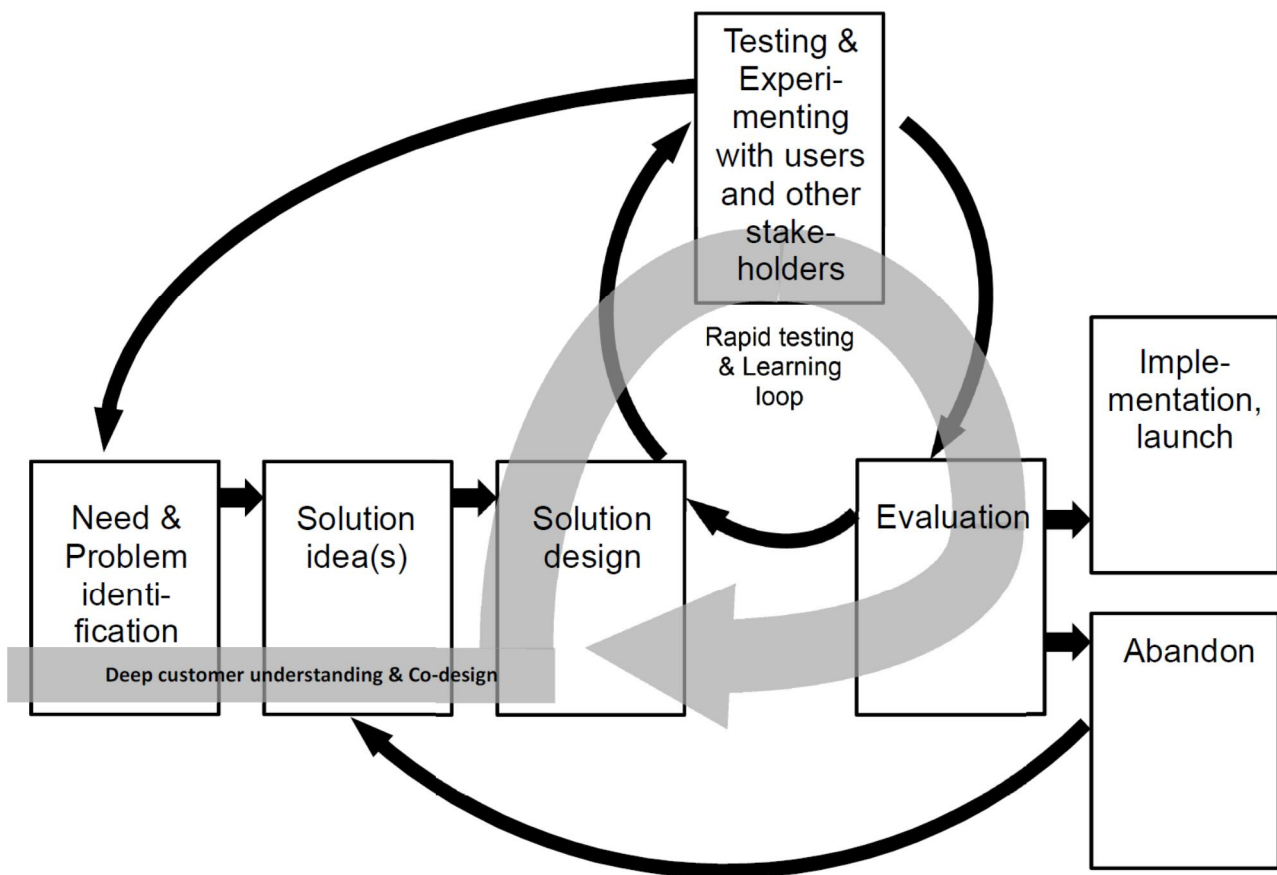


Figure 3. Lean service development

### Service Logic Business Model Canvas and Lean Service Development

Lean service development approach is used throughout the service innovation process, when the selected service design methods are applied. As the lean process is iterative, it means that, if necessary, a different service design tool may be used in different rounds of the Rapid testing and learning loop. Figure 4 illustrates the lean nature of development of service logic business model canvas.

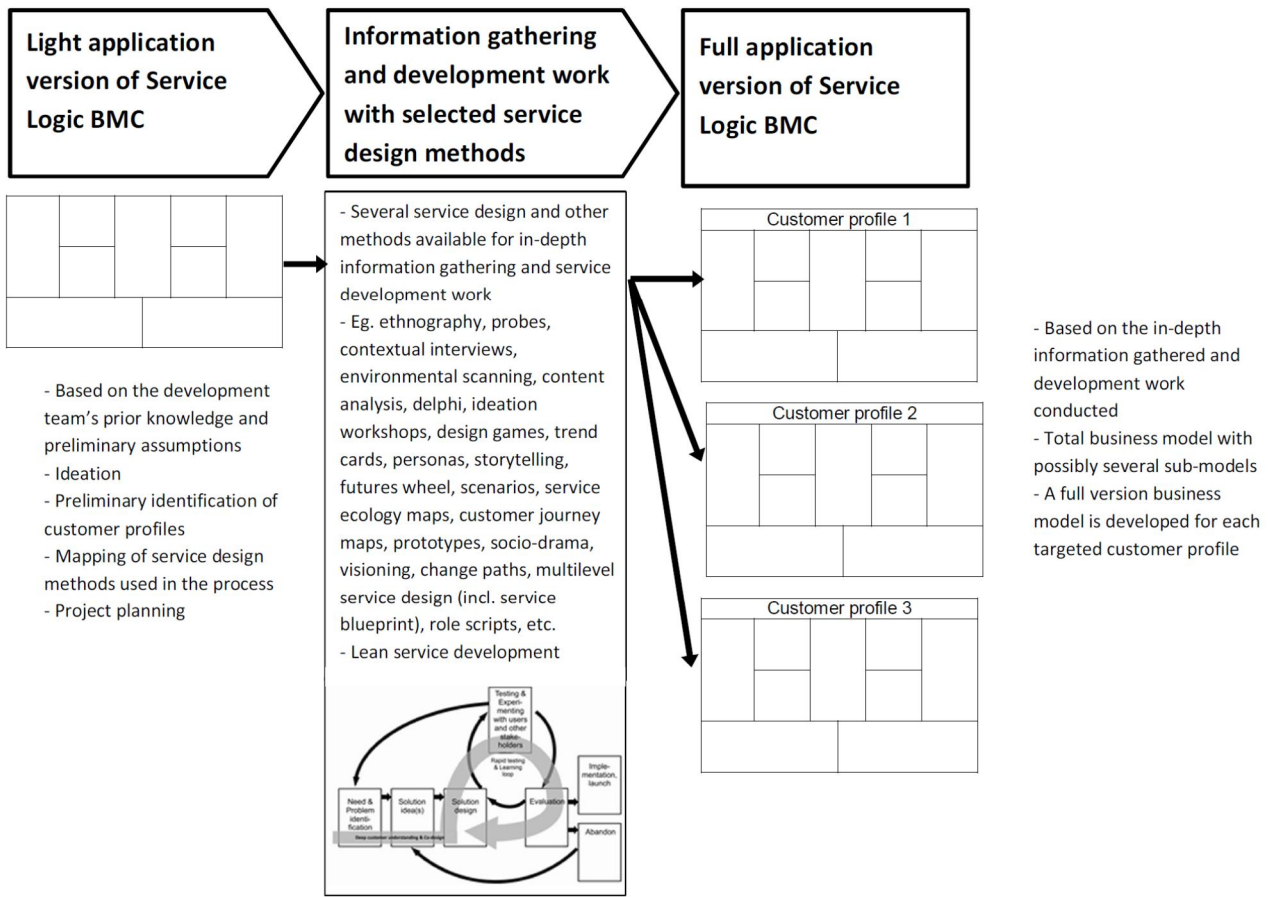


Figure 4. Service Logic Business Model Canvas and lean service development

## Discussion and Contribution

The business logics for service have ignored systematic approaches to business model development. Similarly, the business model literature has not included service logic philosophy in their approaches. The Service Logic Business Model Canvas makes several contributions to the service literature and practice (Ojasalo and Ojasalo, 2015a; 2015b).

- The most important theoretical contribution of the Service Logic Business Model Canvas is the fact that it adapts business model thinking to service logic. It addresses the true and deep customer understanding and customer value in each element of the business model.
- The contribution of the Service Logic Business Model Canvas compared to earlier business model frameworks is that the value formation in customers' everyday lives/businesses is in the core of the business development. It enables the company to effectively analyse, develop and communicate how to facilitate the customer value formation.
- It puts the customer in the centre of all the elements of a business model, and highlights the importance of deep customer insight. It considers both the provider's and the customer's viewpoints in each element of a business model.
- It encourages using various context specific service design methods and co-creation approaches, and thus enables gaining a deep customer understanding and developing solutions that truly represent value to the customer.



- It functions as a rapid prototype tool for a new business model in terms of the light application version.
- It functions as a communication tool that quickly illustrates the business model by giving a snapshot of the big picture.
- It can be used in workshops in various manager and employee groups of the company, in which case it also functions as a tool for creating a more customer-centred business culture.
- It is designed to be applied to each customer profile separately. By using the framework individually to each relevant customer profile, it is possible to have a deeper understanding of the customer logic of each profile. The logic may be very different with different profiles.
- It is easy to be updated during a lean business innovation process. It enables smooth iterative evolution from light application version to full application version.

The earlier business model literature makes hardly any reference refer or utilizes to the principles of “lean development”, “lean innovation”, “lean enterprise”, or “lean startup” (cf. Betz, 2002; Chesbrough and Rosenbloom, 2002; Magretta, 2002; Hedman and Kalling, 2003; Osterwalder, 2004; Shafer et al., 2005; Tikkanen et al., 2005; Voelpel et al., 2005; Giesen et al., 2007; Zott and Amit, 2007, 2008; Johnson et al., 2008; Al-Debei and Avison, 2010; Baden-Fuller and Morgan, 2010; Demil and Lecocq, 2010; McGrath, 2010; Nenonen and Storbacka, 2010; Osterwalder and Pigneur’s, 2010; Smedlund, 2012; Maglio and Spohrer, 2013; Lüftenegger, 2014; Kindström and Kowalkowski, 2014). Some of the studies in this field admit that, the development of a business model is likely be iterative rather than straightforward, and its long-term success requires modifications over time (Demil and Lecocq, 2010; Osterwalder and Pigneur, 2010, Casadesus-Masanell and Ricart, 2011; Kindström and Kowalkowski, 2014). However, the philosophy of lean development is still missing in the earlier business model literature, which represents a clear knowledge gap. The present article fills this knowledge gap by enriching the Service Logic Business Model Canvas with the ideas of lean service development. It contributes by (1) developing and introducing the lean service development model, and by (2) integrating it to the process model of using Service Logic Business Model Canvas. More specifically, the contribution of *the model of lean service development* relates to the following aspects.

- It shows how a new service is iteratively developed through several improvement rounds into a final business model.
- It illustrates the important role of rapid testing and learning in the iterative service development process.
- It supports the implementation of the fundamental philosophy of business logics for service by encouraging service developers to co-creation, testing and experimenting with authentic users and other stakeholders.
- It encourages using multiple service design methods in the service development, is needed. Different service design tool(s) may be used in different improvement rounds, thus enabling better customer understanding, solution design and validation.

The limitations of the applicability of the present lean service development approach may relate to the following situations. It may not be most useful in the case of legacy projects, a service that has reached product/market fit, a service that must match preexisting specification, and a service aimed at regulated industries.

## Conclusions

The purpose of this paper is to propose an approach for using Service Logic Business Model Canvas in the lean service development, and visa verse. There is a clear knowledge gap in the intersections of the three research areas: business logics for service, business models, and lean development. The present article addressed this knowledge gap. As a result, this paper contributed by proposing a model of lean service development, and integrating it in the process of using the Service Logic Business Model Canvas.



Several suggestions for further research emerge from the present work. Firstly, more empirical research and validation is needed to examine and refine the process of lean service development. Secondly, the different service design methods and their usability for lean service development require more empirical research. The methods referred in Table 1 may function as a starting point for such an effort. Thirdly, the model of lean service development may suit differently for different business development contexts. The lean approach has its roots the business development of startups, but it has also been applied in the innovation of large corporations (Owens and Fernandez, 2014). Nevertheless, more research is needed to explore when the lean service development approach is most suitable, and when it should not be used. Fourthly, it can be anticipated that the change from traditional linear development to lean approach may not be easy, particularly for organizations with long history with the traditional approach. Indeed, there is a clear need to examine the organizational change process from linear to lean innovation process. Fifthly, the development of the business model over an iterative and incremental development process should be examined. What happens with the elements of the business model as it develops incrementally from the light application version to the full application version. Sixthly, further research is need on updating and renewing an existing business model that has been implemented and is in use. What is the difference between lean development of a new business model and lean renewing an existing one?

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