

# **PhD Research Proposal**

Doctoral Programme in Business Management

**Conceptualising the business model innovation construct –The investigation of innovation-related capabilities and process design of business model transformation based on a service-dominant logic paradigm**

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# 1. Literature Review

## 1.1 Business Model Construct

The business model construct has been defined variously, differing in terms of components, scope and theoretical underpinnings (Lambert & Davidson, 2013). Teece (2010, p. 191) broadly defines the construct as “the design or architecture of the value creation, delivery and capture mechanisms employed”. In line with these reflections, other authors suggest additional dimensions to the theoretical discourse of business models, such as the customer interface (Baden-Fuller & Haefliger, 2013), social (Yunus, Moingeon & Lehmann-Ortega, 2010) or financial elements (Chesbrough & Rosenbloom, 2002). Moreover, the business model construct was interpreted differently in terms of its scope. Several conceptualisations restrict its scope to the boundaries of the company itself (Osterwalder & Pigneur, 2009; Afuah, 2004), while other propositions consider the business model construct from a network perspective (Zott & Amit, 2010). Finally, divergent views among scientists exist with regard to the theoretical sovereignty of the business model construct. Hence, several academics consider the business model construct as a subordinated concept to strategy that is “the direct result of strategy but is not, itself, a strategy” (Casadesus-Masanell & Ricart, 2010, p. 212). Consequently, the design of the business model is the transformation of strategy into practice (Velu, 2014). In contrary, the construct is defined as an objective concept that is independent from strategy (Baden-Fuller & Morgan, 2010).

## 1.2 Business Model Innovation

Enterprises are increasingly exposed to highly competitive and fast changing business environments (Van Oosterhout, Waarts, & van Hillegersberg, 2006). External factors, such as globalisation and competitive pressures, or internal influences, for instance a change in strategy, force companies to renew their business models (Verma & Jayasimha, 2014).

Business model innovation has a deep systemic impact on an organisation (Velu & Stiles, 2013) and involves major risk for the company (Euchner & Ganguly, 2014) because it redefines the value creation and capture mechanisms of a firm (Teece, 2010). Transformation of the business model occurs when a dimension of the construct is manipulated which will lead to a new value proposition, the reallocation of key resources and processes and a reformulation of the profit formula (Johnson, Christensen, & Kagermann, 2008).

## **2. Conceptual Background**

### **2.1 Service-dominant logic as a vehicle for Business Model Innovation**

Service dominant logic (SDL) claims that all economic activities are a manifestation of service. Therefore, physical products are a materialised form of service and perceived as bundles of human knowledge (Maglio & Spohrer, 2013). A Firm is considered as an assortment of operand and operant resources (i.e. people, technologies, organisations and information) (Spohrer, Maglio, Bailey, & Gruhl, 2007). As the enterprise cannot define value for its value network, the entity dynamically configures its resources to engage in collaborative activities with its external environment in order to shape value propositions with mutual agreement (Lusch, 2011). Accordingly, customers, suppliers and other economic entities are cocreators and resource integrators in the value proposition design (Ordanini, & Parasuraman, 2011). Operant resources, such as people and businesses, applying skills, competences, capabilities and knowledge, can facilitate the interaction between company and value network and create competitive advantage. Technology can assist as a communicative and relationship building medium enabling interaction and collaboration between actors in the eco-system in the process of value cocreation (Lusch, 2011).

Service-dominant logic enables the investigation of business model innovation from a service perspective because it conceptually roots in the service sector and does not adapt a manufacturing mind set. This has major implications on the nature, process and outcome of innovation in a service context:

- 1) Innovation is an open process surpassing a company's boundaries.

The collaborative aspect inherent to SDL characterises innovation as an activity that is outward oriented towards the external environment (Chesbrough, 2006). The interaction between customers, suppliers and employees is critical to the realisation of innovation (Verma & Jayasimha, 2014). Accordingly, the customer possesses an innovative capacity (Thomke & Hippel, 2002). As Business model transformation is a learning process, the engagement of customers can positively contribute to diminish the risk associated with it. (Euchner & Ganguly, 2014).

- 2) Knowledge-oriented dynamic capabilities determine the company's innovative capacity and potential.

SDL stresses the importance of operant resources, and considers knowledge as the principal source to achieve competitive advantage (Lusch, 2011). Similarly, Drucker (2009) argues that knowledge is the “dominant- and perhaps only – source of comparative advantage” (p.190). A company utilizes knowledge sources, such as external (e.g. customers, suppliers) and internal sources (i.e. employees) to extend its knowledge base (Nonaka, Toyama, & Konno, 2000). Leveraging knowledge from customers initiates the innovation process and assists a firm to build intellectual resources that foster further innovation (Grant, 1996). According to Lusch (2011) companies need to develop dynamic capabilities to effectively learn and acquire knowledge to adapt the value proposition. In this sense, Salunke, Weerawardena, & McColl-Kennedy (2011) further developed the definition of dynamic capabilities by addition of a knowledge-based element, describing those as “the capacity of an organization to

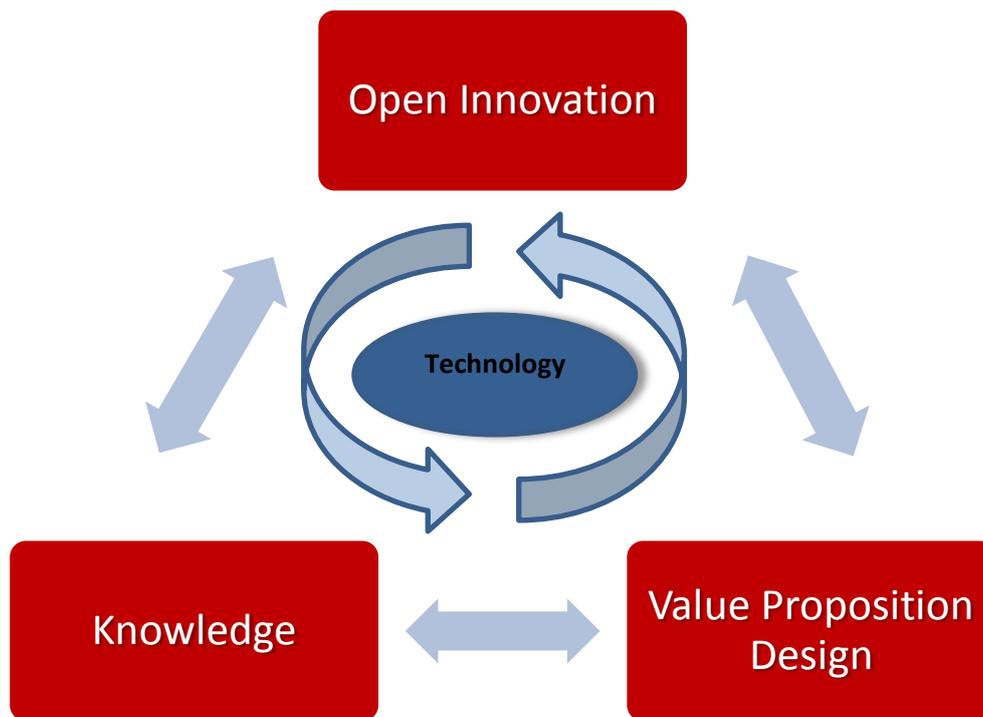
purposefully create, extend or modify its knowledge-related resources, capabilities or routines to pursue improved effectiveness” (p. 1252). However, companies fail to incorporate external knowledge sources into the innovation process due to a lack of appropriate delivery mechanisms (Chen, Tsou, & Huang, 2009).

- 3) Collaborative value proposition design represents the initiation of business model transformation.

Business model renewal is initiated by a new logic or refinement of the customer value proposition (Johnson, Christensen, & Kagermann, 2008).

From a SDL viewpoint Maglio & Spohrer (2013) argue that “business model innovation can be understood as value-proposition design (...) from the perspective of multiple stakeholders” (p. 667). Consequently, the traditional scope of resource integrators into the process of value proposition design is extended from economic entities, including social actors through advancements in technology (Lusch, 2011). An appropriate business model enables a “business-society dialog” (Boons & Lüdeke, 2013, p. 13) that can facilitate new opportunities of designing value propositions and reflects economic interests, but also customer preferences and realities.

Figure 1 comprises concepts underlying service-dominant logic that are relevant to consider business model innovation from a service-centric perspective.



(Figure 1)

### 3. Research Gaps

Although there is a strong interest in business model innovation from both academia and practice (Casadesus-Masanell & Zhu, 2013), the subject is not well researched (Teece, 2006). Consequently, the service sector lacks conceptual frameworks that reflect the business model transformation process in the service setting (Salunke, Weerawardena, & McColl-Kennedy, 2011; Kindström, Kowalkowski, & Sandberg, 2013, Maglio & Spohrer, 2013). While research has focused on the processes related to service innovation, it is not clear which resources have to be developed and mobilized to enable service innovation (Froehle & Roth, 2007), consequently the role of operant resources in the innovation process is unexplored (Verma & Jayasimha, 2014). Furthermore, the involvement of the customer into the service innovation process needs further clarification (Akamavi, 2005). Conclusively, the research

agenda should address the integration of customers as collaborative sources and potential enablers for knowledge creation and innovation, instead of viewing them as ultimate consumers in the value chain (Lusch, 2011).

## **4. Research Context: Airline Operators**

Continuing vertical de-integration from the air transport value chain and a lack of differentiated business models cause airlines to compete intensely at their core activity for increasingly price-sensitive customers (International Air Transport Association (IATA)). Although profitability of airlines strongly varies (IATA, 2011), competitive forces and the increase of buyer power, leave airline operators as the weakest element in the air transport value chain and shareholders with low returns (Tretheway & Markhvida, 2014). Daft & Albers (2013) conclude that the airline industry urges the development of new business models that are financially sustainable, but also build their strategies on differentiation.

### **3.1 Business Models in the airline industry**

From a strategic perspective, airlines generally build their business models around the premises of differentiation or cost leadership (Heracleous & Wirtz, 2014). The former is linked to the business model of full-service carriers (FSC) which are characterized by a diversified business model with integrated products. This is accomplished by a strong vertical integration in the aviation value chain enabling FSCs to deliver core airline, but also non-aviation services (O'Connell & Williams, 2005). As part of their operations strategy, FSCs apply a hub- and spoke system to centralise their traffic at hubs with the purpose to establish a network with intense geographic coverage and a high degree of frequency and connectivity through the engagement with other alliance partners (Detzen, Jain, Likitapiwat, & Rubin, 2012). Low cost carriers (LCC) are referred to as focused airlines, as they concentrate their

operations on their Core activities as an airline (Tsiriktsis, 2007). Featured by an entrepreneurial organisational design, LCCs operate point-to-point systems in the short- and medium haul market. Through flexible labour agreements and union avoidance LCCs achieve high productivity levels and a competitive cost structure (Dobruszkes, 2006). For that reason, customers benefit from low fares, but have to remunerate for additional services (Alamdari & Fagan, 2005).

### **3.2 Convergence of Business Models**

Currently, a merging trend of the two major business models advances which is exemplified by FSCs adopting features of the low cost model, such as boosting the productivity of their fleet assets and crew, while restructuring their service packages by charging for traditionally free amenities in order to build a competitive cost base (Fageda, Jiménez, & Perdiguer, 2011). Furthermore, certain airlines launch a low cost arm, the Airline-within-Airline (AinA) strategy (Homsombat, Lei & Fu, 2014; Pearson & Merkert, 2014), to fight the growth of LCCs and stabilize their market position (Lin, 2012).

Contrarily, LCCs increase their service levels to target business customers and serve primary airports (Easyjet, 2014). De Wit & Zuidberg (2012) argue that LCCs are forced to imitate management practices of the FSCs in order to continue their expansion.

### **3.3 Commoditisation of the Airline Service Product**

Schmenner (1986, p. 25) conducting research in the service sector classified airlines as ‘service factories’ that provide customers with a standardized service (Heracleous & Wirtz, 2009). Consequently, customers are price-sensitive as the airline service product is perceived as a commodity product (IATA, 2011; MarketLine, 2014). Rothkopf & Wild (2011) describe the airline sector as an industry that is characterised by a large extent of commoditisation, ascribed by low profit margins, competition on price, geographically broad availability of

airline services as a consequence of deregulation processes and partially through undifferentiated service products and increasing buyer power.

### **3.4 Innovation in the Context of the Airline Industry**

According to Franke (2007) airline operators should focus their future innovation activities on technological novelties, the refinement of customer segmentation methods or business model innovation. Technological innovation, for instance information technology, enabled business model innovation in the nature of low-cost airlines that used technological improvements to bring novel products to market (e.g. single fares) and innovate at the process level (e.g. distribution of tickets) (Buhalis, 2004). Furthermore, airlines exploit technology to control, plan and optimize their operations function (Ashurst, Freer, Ekdahl, & Gibbons, 2012).

Advanced customer segmentation is also rooted in the advancement of technology. A recent case study of Finnair indicates that the airline uses social media technology for segmentation purposes and the customisation and development of services (Jarvenpaa & Tuunainen, 2013).

In the light of business model transformation Wensveen & Leick (2009) argue that airlines usually imitate business models from competitors, instead of innovating new business models. The resulting convergence of business models results in similar company and product structures leaving the customer to select service offerings based on price (MarketLine, 2014, Daft, & Albers, 2013). In this light, airlines do not build organisational structures of a service-oriented company and innovations of the business model fail to point towards service orientation (Nair, Paulose, Palacios, & Tafur, 2013).

The discussion reflects that business model innovation is of highest priority in the airline industry due to competitive forces and undifferentiated business models. Furthermore, innovation is often linked with technological innovation. The way airlines deploy technology, for instance new inflight entertainment or as an exploitive mechanism to satisfy threshold capabilities (e.g. operational management) can be imitated easily by competitors. It could be

argued that airlines perceive competitive advantage from technology as a resource itself. Therefore, airlines need to develop business models that enable the integration of technology in a manner that differentiates themselves from competitors and is difficult to imitate. Service-dominant logic might deliver the theoretical bases for business model transformation in the airline industry. For instance, a paradigm shift in the utilisation of information technology as an explorative tool enables airlines to engage with customers as value cocreators into the value proposition design and innovation process (Lusch, 2011).

## **5. Research Programme**

### **5.1 Objectives**

The PhD project focuses on the development of a theoretical framework of the business model innovation phenomenon from a service-dominant logic perspective. Therefore, the researcher aims to identify the resources and processes that are necessary to build the capability to innovate. Moreover, the thesis will clarify the deployment of resources and the construction of processes during different stages of the innovation process. Finally, the research seeks to investigate critical dynamics and interdependencies of elements and their linkages within the emerging framework of business model innovation.

## 5.2 Research Questions

1. What are the key elements and dynamics of profitable business models in the airline industry?
2. Which innovation-related capabilities airlines need to build as a prerequisite for business model innovation?
  - a. Which resources and competences airlines need to develop to initiate business model innovation?
  - b. Which contribution can the customer give as a cocreator and resource integrator?
3. How are capabilities deployed during the business model innovation process?
  - a. Which new resources and competences have to be developed during the course of business model innovation?
  - b. How can process design favour the leverage of innovation-related capabilities?
4. Which interdependencies and dynamics result from the resource deployment and process design?

## 5.3 Methodology

The conceptualisation of business model innovation is a relatively uncharted research topic (Teece, 2006; Velu, 2014). The study will be explorative in nature with the purpose to identify the underlying constructs and variables of the construct mentioned, under consideration of potential causal relationships among those elements. Therefore, the researcher will utilise secondary and primary research techniques in order to address the research questions mentioned above. First of all, the researcher will focus on a secondary data analysis that comprises the investigation of literature from academia and practice relevant to business model (innovation) and a multi case study of business models in the airline industry. Peer-reviewed literature will be studied deeply in order to understand the academic discourse

and theoretical underpinnings of the research topic, while the review of company sources (e.g. annual reports) will contribute to the understanding how companies deploy and handle the business model concept and the challenges associated. As Profitability of airlines strongly varies across the airline industry (IATA, 2011), a multi case study of airline operators aims at understanding successful business model configurations and the key dynamics underlying their business models. As mentioned above, Heracleous & Wirtz (2014) analyse business models in the airline industry under the premises of Porter's Generic Strategies concept, utilizing the business model concept provides an alternative for firm- and industry analysis (MacGrath, 2010). Therefore, a more appropriate classification and a better understanding of the components and the underlying mechanisms of success might be derived. Based on the findings of the secondary data analysis, the researcher will construe a semi-structured interview guide with the purpose to engage with practitioners dealing to formulate a theoretical framework of business model transformation. The framework-building process will include an evaluation period with academic experts in business model innovation with the aim to increase relevance and robustness of the model.

### *5.3.1 Sample*

Respondents in the qualitative part of the research process will be recruited via a non-probability sample. The definition of the population includes managerial personnel concerned with business development and innovation. Consequently, participants must have professional experience in managing business transformation in their company, or at least considerable experience in product or process innovation. A judgmental sample is appropriate because for the investigation of the research questions the researcher depends on access to a specific population which needs to possess a high degree of expertise (Malhotra, Birks, & Wills, 2012). In addition, snowball sampling will assist in identifying potential respondents with

similar characteristics to increase the number of participants (Blumberg, Cooper & Schindler, 2008).

### *5.3.2 Data Collection*

As described above, a literature review will be conducted to analyse the current state of academic and practical contributions toward the concept of business model (innovation). Furthermore, in the interrogative part of the study, qualitative research techniques, such as face-to-face interviews will be applied to enlarge the body of knowledge of business model innovation with the intention to build a theoretical framework of the construct. Semi-structured interviews will be conducted to derive rich qualitative data and to give participants the opportunity to reflect broadly on issues relevant to academia and practitioners (Kindström, Kowalkowski & Sandberg, 2013). The interviews will be audio-recorded and transcribed for further investigation.

### *5.3.3 Data Analysis*

After the transcription of the data, the researcher will familiarise with its content. Subsequently, the researcher will code the information with the intention to identify emergent cluster themes from the qualitative data set and to organise them into meaningful groups. Successively, the evolving codes will be systematised into dimensions and predominant abstract themes. The structuring process enables the identification and grouping of codes according to their relevance towards the research questions.

### *5.3.4 Framework-building process*

Based on the categorisation procedure resulting from the data analysis, empirical results and contributions from the literature review and multi case study approach will be synthesized in order to conceptualise the framework. The robustness of the framework will be strengthened through the integration of academic experts. A Delphi-method approach enables the

participation of specialists into the modelling process and stimulates critical input and adjustment of the proposed framework.

## **6. Contribution to Knowledge**

In their Literature review on business model innovation, Lambert & Davidson (2013) conclude that there is a lack of framework conceptualisation regarding the subject. Therefore, a conceptual framework identifying the resources and processes necessary, would contribute to the understanding about the capabilities companies need to develop in order to innovate and how they must deploy them during the process of innovation. Furthermore, the project would contribute to the role of the customer as a source for innovation and specify its role in the innovation process. In case of the airline industry, business model innovation is a topic of major interest. Therefore, the proposed framework on business model transformation assists airlines in engaging into the innovation process and fundamentally reconsiders the role of the customer which could alter the performance metrics of the airline industry. Finally, after testing the framework in the airline industry its application could be extended to other service sectors.

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