National College of Ireland

BUSINESS MODEL INNOVATION OF PLATFOM STARTUPS

in the context of Digital Transformation

MSc Research project
INTERNATIONAL BUSINESS

Evgeniya Belolipetskaya
Student ID: 18142001

Supervisor: Fabian Armendariz

School of Business
National College of Ireland

Abstract

This paper explores the practical side of business model innovation by examining how a platform startup introduces changes into its business model design. Business Model Canvas is used as a theoretical framework enabling to visualise the nature and dynamics of changes introduced by a platform startup. Grounded in the vast data gathered from existing theoretical perspectives and case study analysis, the thesis develops the understanding of the distinctive features of platform startup business model innovation, namely the simultaneous alteration of three business model dimensions: value creation, delivery, and capture; the high level of consumer centricity based on customer co-creation and a proactive outward-looking approach; and managers' ability to recognize the need to introduce innovations.

Submission of Thesis and Dissertation

National College of Ireland

Research Students Declaration Form

(Thesis/Author Declaration Form)

Name: Evgeniya Belolipetskaya

Student Number: 18142001

Degree for which thesis is submitted: MSc in International Business

Material submitted for award

(a) I declare that the work has been composed by myself.

(b) I declare that all verbatim extracts contained in the thesis have been distinguished by quotation marks and the sources of information specifically acknowledged.

(c) My thesis will be included in electronic format in the College Institutional Repository TRAP (thesis reports and projects)

(d) Either *I declare that no material contained in the thesis has been used in any other submission for an academic award.

Or *I declare that the following material contained in the thesis formed part of a submission for the award of

_____
_

(State the award and the awarding body and list the material below)

Signature of research student: _____

Date: 21/08/2019

Submission of Thesis to Norma Smurfit Library, National College of Ireland

Student name: _____

Student number: _____

School: _____

Course:_____

Degree to be awarded:

_____

Title of Thesis:

_____

One hard bound copy of your thesis will be lodged in the Norma Smurfit Library and will be available for consultation. The electronic copy will be accessible in TRAP (http://trap.ncirl.ie/), the National College of Ireland's Institutional Repository. In accordance with normal academic library practice all theses lodged in the National College of Ireland Institutional Repository (TRAP) are made available on open access.

I agree to a hard bound copy of my thesis being available for consultation in the library. I also agree to an electronic copy of my thesis being made publicly available on the National College of Ireland's Institutional Repository TRAP.

Signature of Candidate:
_____

For completion by the School:
The aforementioned thesis was received by_____
Date:_____

This signed form must be appended to all hard bound and electronic copies of your thesis submitted to your school

Acknowledgements

I would like to acknowledge and express gratitude my gratitude for valuable help and advice of the following people:

My supervisor, Fabian Armendariz, for his critical assessment, much-needed guidelines, constant useful feedback and valuable remarks throughout the entire research project. I highly appreciate his serious attitude and constructive approach to supervising my dissertation.

The founders of a studied startup for their willingness to take part in interviews and considerably contribute to this research.

My mother Liliya, my sister Rimma and my father Vladimir for continuous encouragement, support and motivation.

Table of Content

List of Figures

List of tables

List of Abbreviations

BM – Business Model

BMI – Business Model Innovation

BMC – Business Model Canvas

CSP – Case Study Protocol

RQ – Research question

RO – Research objective

CHAPTHER 1 – INTRODUCTION

1.1 Research context

Over the recent years, there has been an enormous theoretical (Chesbrough and Rosenbloom, 2007; Demil and Lecocq, 2010; Zott and Amit, 2010; Teece, 2010) and practical (Holmen and Fallahi, 2013; Giesen, 2015; Foss and Saebi, 2017) interest in business model. Scholars (Loebbecke and Picot, 2015; Ritter and Lettl, 2018) have discovered that an efficient business model helps to gain a competitive advantage, especially amid digital transformation, because it is exactly what helps to bring commercial success to even the most advanced digital technology (Chesbrough, 2010). Hence, publications on the business models began to appear frequently in management and business-related research (Zott and Amit, 2002; Teece, 2010; Souto, 2015; Svahn et al., 2017).

In the course of numerous papers on business model, researchers started to investigate the aspect of its innovation because there was a need not only to obtain the edge over competitors but also sustain it in the long-run (Chesbrough, and Schawartz, 2007; Chesbrough, 2010; Björkdahl and Holmén, 2013; Foss and Saebi, 2017). Therefore, the focus of academic literature has been extended from studying solely product and service innovations to business model innovation (Mueller, 2014; Wirtz et al, 2015) to which there has been assigned a particular significance because business model innovation is very hard to imitate (Chesbrough, 2010).

Business model innovation helps companies generate value in their existing business practices, identify new ways to deliver value and capture it, so it is considered to be the main market success factor (Lindgardt et al., 2009). And, as Hossain (2017) claims, business model innovation yields particularly

significant improvements in the overall company's performance. Therefore, the topic of business model innovation is acute and calls for researchers' attention (Kamprath and Van den Broek, 2015).

Business model innovation of companies that were born out of digital transformation has been particularly successful (Mueller, 2014). It is especially true for firms that operate on digital platforms because they disrupt the market and constantly bring novel revolutionary value propositions (Niesten and Jolink, 2016; PWC Digital Pulse, 2018). However, the authors put great emphasis on studying business model innovation of those companies that have already won the market, while neglecting the early-stage business model innovation process of start-ups (Saebi, 2014; Schaltegger, 2016). The understanding of the distinctive early stage aspects of business model innovation is crucial because it is the so-called 'groundwork' for future success (Chesbrough, 2010). Hence, the purpose of the study is to examine business model innovation of a platform startup.

1.2 Justification for research

According to current literature on business model innovation, companies conducting business model tests and experimentations have proved to be the most successful ones (e.g., Andries and Debackere, 2007; McGrath, 2010; Sosna et al., 2010). Irrespective of the industry in which a company operates (e,g. construction industry (Thuesen and Hvam, 2013), media industry (Ouden E den, 2012), music industry (SunEagle, 2010), it has been proven that without BMI the survival of the company is rather a daunting task (Magretta, 2002). In every industry, companies try to reduce costs, improve processes or

products offerings using digital technologies (Teece, 2010). However, the potential of them can be unleashed only if managers are able to create appropriate business models (Chesbrough, 2003; Chesbrough and Rosenbloom, 2002).

What makes platform start-ups special in case of BMI under digital transformation is that their managers has kept DT in mind from the very start of their business (Demil and Lecocq, 2010). Platforms enable cross-group effects between multiple customer groups on the digital platform, resulting in the elimination of the intermediary layer (Martins, 2015). So, they know how to commercialize technological outputs to the best of their capacities and get through to their customers (Reinhold and Dolnicar, 2017). While more mature companies usually reduce the importance of BMI to the notion that they can help remove some inefficiencies or lower costs of products/services, platforms innovate their BMs to create a much more profitable value framework (Reinhold and Dolnicar, 2017). Hence, it is important to study platforms to understand how they manage business model innovation, which leads to the research purpose and questions.

1.3 Research problem, questions and objectives

Platform-based start-ups are believed to operate on business models that are particularly successful in the long-run, which is expressed in the fact that their managers are able to make the best of the digital technology underlying the business. Put it differently, they manage to create such activity systems that help to create, deliver, and capture value in some way new to the market for a

long-term. Such companies as AirBnb and Uber that began as platform-based start-ups show exceptionally high growth rates.

However, the existing literature on BMI lacks understanding on what determines the success of early-stage platform start-up business model innovation. Authors usually put emphasis on the ongoing business model innovation process of successful platform companies. Hence, *the purpose of the study is to get an in-depth understanding of the early-stage changes or/and decisions behind business model innovation of a platform startup.* Insights into BMI of a platform start-up can be useful for startups building their business model around another digital technology or companies that are intended to come up with new business models.

Questions:

To achieve the stated research goal, the following research questions are derived:

RQ1: How do managers of a platform start-up change their initial business model elements, while testing their value proposition(s) in the market?

RQ2: How do changes of the initial business model design form business model innovation?

Objectives:

To address the research questions, it is important to:

RO1: formulate the business model of a platform start-up based on its empirical study

RO2: identify changes in its initial business model

RO3: look into business model innovation of a platform start-up

RO4: identify distinctive features of its business model innovation

CHAPTER 2 – LITERATURE REVIEW

This chapter offers a brief background of scientific attempts to study and consolidate data relevant to the research problem. The goal of the chapter is (1) to see how research on the business model, business model innovation and platform economy has been changing over time and (2) communicate the state of the current research, highlighting the need to address under-examined areas, in particular, a business model innovation process of platform-based start-ups and thus advance existing scientific knowledge.

The chapter is divided into 4 main parts. The first three parts provide literature on business model, business model innovation and platform economy concepts in a coherent way. The conclusion of the chapter provides a synthesis of data discussed in preceding parts, substantiate the need to address the stated research problem and shows how this paper fits into the overall ongoing academic research focusing on the business model and business model innovation in the new digital era.

2.1 Business Model Innovation and the Platform concept

2.1.1 Business Models

The earliest discussions centered on a business model concept date back to the middle of the past century when research on business design and planning was on the rise (Osterwalder et al., 2005; Johnson et al., 2008; Zott and Amit, 2010). For instance, Bellman et al. (1957) highlight the importance of a business model while developing a business game for executives to make them better informed about the management process. Since that time the interest to business models has grown significantly among researchers working in various

fields such as strategic management (Voelpel et al., 2004; Osterwalder et al., 2005; Demil and Lecocq, 2010; Teece, 2010; Dahan et al., 2010), organizational structure (Teece, 2014; Leih, Linden and Teece 2015), business development (Johnson, Christensen and Kagermann, 2004; Chesbrough, 2010).

Over the past two decades, rapid technological advances have elevated scientific endeavours related to the study of business models to a new level (Pateli and Giaglis, 2004; Loock, 2012) due to the need for understanding of how to take advantage of new business environments (Schaltegger et al., 2016).

Although the BM concept has been extensively examined, there is a certain divergence of views in academic circles on the definition of a business model resulting in multiple models, approaches, and attempts to determine what it is (Niesten and Jolink, 2015). Authors (Magretta, 2002; Osterwalder et al., 2015; Zott and Amit, 2010; Teece, 2010) usually come up with definitions of an idiosyncratic nature that would serve the needs of their papers. For instance, according to different authors, a business model can be described as a story (Magretta, 2000), a description (Andrén et al, 2003), a concise representation (Morris et al. 2005), a system of interrelated activities (Zott and Amit, 2012), an architecture (Teece, 2010), an assumption (Drucker, 1998), a pattern (Niesten and Jolink, 2015), a conceptual tool (Osterwalder et al., 2005), etc. Although it brings up the ambiguity around BM this abundance of ideas is not an impediment to the study of the concept-related issues (Wirtz et al., 2015). Conversely, it serves as a convincing proof of the increasing relevance of the concept (Wirtz et al., 2015). Beyond that, currently existing key research

outputs on BMs are rather complementary than controversial (Dahan et al., 2010; Wirtz et al., 2015).

The ongoing business model research still focuses on the development of the uniform understanding (Clinton and Whisnant, 2014), which is built on the Peter Drucker's (1988) suggestion that a business model is assumptions about how an organization makes profits with the important caveat implying that the essence of a business model is not only financial but rather conceptual, given that it deals with business logic. Chesbrough (2010) also highlights that a business model can be explained as "implicit and abstract assumptions" about potential byers, the behaviour of profits and expenses, the dynamic nature of user needs, and potential competitor responses.

Hence, there is general consensus among many authors (Ostarwalder et al., 2005; Wirtz et al, 2015; Evans and Yang, 2017) that business models are critical for any company because they express the rationale of entrepreneurial activity, namely giving an economic value of a good or service, which is almost impossible to imitate (Chesbrough, 2010). So, the general idea underlying the concept can be presented by the following definition:

"A business model is a conceptual framework that includes a set of components and their relationships and enables a specific firm to express its business logic" (Osterwalder et al., 2005, p.3).

There are also an increasing number of authors (Chesbrough and Schwartz, 2007; Demil and Lecocq, 2010; Van Putten and Schief, 2013; Evans and Yang, 2017) who are immersing into examining business models from a strategy-

oriented perspective because a company's strategy is determined by the overall business logic (Magretta, 2002; Ostarwalder et al, 2005; Wirtz et al., 2015; Evans and Yang, 2017). The large portion of them claims that business models are essential in terms of building a corporate strategy because it is a primary source of competitive advantage (Zott and Amit, 2010).

It has been mentioned that despite the fact that BM and strategy clearly intersect, these two terms are not interchangeable (Magretta, 2002; Betz, 2002). Magretta (2002) Ostarwalder et al. (2005), Johnson (2010), Björkdahl and Holmén (2013) state that a business model is inherently more generic than a strategy because it, as was mentioned above, justifies the very existence of the company, thus it becomes somewhat philosophically aligned with strategy, vision, and goals.

Current research is also awash with attempts of academicians to build a comprehensive perspective on the content and elements of business models (Zoot and Amit, 2010; Teece 2010; Wirtz et al., 2016; Wells, 2017). Authors usually focus on design elements (Hamel, 2009; Flick, 2009; Zott and Amit, 2010; Teece, 2010), value propositions (Mahadevan, 2004; Yip, 2004; Demil and Lecocq, 2010; Osterwalder and Pigneur, 2010; Johnson, 2010) internal capacities such as a strategy scope and resources (Magretta, 2002; Osterwalder and Pigneur, 2010), networks and partnerships (Wu and Zhang, 2009; Van Putten and Schief, 2013), relations with customers (Osterwalder and Pigneur, 2010; Demil and Lecocq, 2010), and revenue models (Kaplan and Norton, 2004; Chesbrough and Schwartz, 2007; Osterwalder and Pigneur, 2010).

Much of the current literature on business models is concerned with the company's heightened need to run multiple business models simultaneously (Osterwalder et al., 2005; Osterwalder and Pigneur, 2010; Van Putten and Schief, 2013; Heij et al., 2014). For instance, Markides and Oyon (2010), Van Putten and Schief (2013) and Heij et al. (2014) put down this need to numerous spin-offs and differences between various business units of one company. Ostarwalder and Pigneur (2010) and Wells (2017) highlight that mergers and acquisitions are "gaining its popularity as a business practice enabling to boost competitiveness".

Since the importance of a business model is rarely in question, authors have been attempting to identify factors conducive to business model success or failure (Kaplan and Norton, 2004; Flick, 2009; Giesen et al., 2009; Johnson, 2010; Chesbrough, 2010; Gunday et al., 2011; Andries and Debackere, 2013). Even though authors have already devoted a great deal of effort to understand what in particular makes a business model exceptionally efficient, superior and profitable (Chesbrough, 2010; Demil and Lecocq, 2010; Holloway and Sebastiao, 2010; Van Putten and Schief, 2013) the common understanding is yet to be shaped (Chesbrough, 2010; Osterwalder and Pigneur, 2010; Wirtz et al., 2016). Wirtz et al. (2016) mention that success and failure factors are examined mostly when it comes to established firms that have already demonstrated whether their business model is viable or not. However, there is a clear dearth of research on companies in their infancy (Wirtz et al., 2016).

Special research emphasis is placed on how companies structure sources of value creation and ways of value delivery and value capture, which make up a

business model (Zott and Amit, 2001; Westerlund, 2008; Applegate, 2008; Ostarwalder and Pigneur, 2010; Smith et al., 2010; Wirtz et al, 2016). Value architecture underlying BMs has been under investigation since e-business started to bloom with firms experiencing tremendous success due to benefiting from technology and related opportunities such as new types of transactions and channels (Zott and Amit, 2010).

2.1.2 Business Model Innovation

Business model innovation has started to be studied when Mitchell and Coles (2003) identified that many companies had been using their successful business models to enter new markets (Foss and Saebi, 2016). Researchers examining the area have acknowledged that companies need to undergo the process of constant business model innovation because of disruptive technologies (Chesbrough, 2010; Heij et al. 2014; Geissdoerfer et al., 2018), dynamic consumer needs (Ostarwalder and Pigneur, 2010; Martins, Rindova and Greenbaum, 2015) and changing market conditions (Kamprath and Van den Broek, 2015) that are reshaping a business environment continuously (Giesen et al., 2007; Marolt et al., 2016; Geissdoerfer et al., 2018).

Chesbrough (2010), Trapp (2014), Sivertsson and Tell (2015) state that a business model along with product/service and process can be the subject of a company's innovation efforts to maintain and renew its competitive advantage. However, Lingardt et al. (2009), Teece (2010), Trapp (2014), Foss and Saebi (2016) claim that business model innovation is the most rewarding innovation class because it is hard to introduce it and not feasible to replicate. Chesbrough (2010) and Baden-Fuller and Haefliger (2013) argue that business model

innovation better improves the company' profitability rate and its overall performance compared to other innovations. Therefore, companies innovating their BMs are more profitable compared to those that do not do that (Demil and Lecocq, 2010; Massa and Tucci; 2014; Sivertsson and Tell, 2015), which is particularly evident in the long run (Gassmann et al. 2014; Geissdoerfer et al., 2018).

There have been a lot of attempts to determine what business model innovation represents and what types of exist it, however, consensus is far from being achieved (Chesbrough, 2010; Wirtz et al, 2016). The very source of disagreement among researchers refers to whether the process of business model innovation leads to the mere revision of the old business model (Abdelkafi et al., 2013; Massa and Tucci, 2014; Geissdoerfer et al., 2018) or to the complete replacement of it (Santos and Van Der Heyden, 2009; Thompson and MacMillan, 2010; Snihur and Zott, 2013). Beyond that, authors focus on different levels of innovation (Wirtz et al., 2016), Björkdahl and Holmén (2013) put emphasis on a firm level, Amit and Zott (2010) study BMI if terms of industry, while Thompson and MacMillan (2010) and Vorbach et al. (2017) relate it to the business world in general.

Another research issue is linked to such a category as experimentation with a business model as a major part of BMI (Mitchell and Coles, 2003; Markides, 2006; Zott and Amit, 2010; Teece 2010; Chesbrough 2010; Hejlesen, 2012; Lindgren, 2012 Madian, 2015 Marolt et al., 2016). Magretta (2002) highlights the need of tests, hypotheses and revisions of business models to explore new opportunities to discover new and unique ways of doing business. However,

Zott and Amit (2010), Chesbrough (2010) and Gunday (2011) note that some companies test their business models only when they come up with them, which is doomed to failure as even the most successful BM ceases to be viable at a certain point of time (Magretta 2002; Teece, 2010; Sivertsson and Tell, 2015; Vorbach et al., 2017).

Researchers also put great emphasis on the study of dynamic capabilities that companies need to develop to be able to transform a business model and foster business model innovation (Zahra et al., 2006; Schreyogg et al., 2007; Teece, 2010; Teece 2011; Helfat and Peteraf, 2015; Teece and Leih, 2016; Amit and Zott, 2016; Foss and Saebi, 2018). These capabilities reflect the dynamics of external factors and thus help companies to adjust to changes. So, authors make research efforts to develop an understanding of how to develop these capabilities to be able to introduce business model innovation and thus sustain competitive advantage.

Santos et al. (2009) and Chesbrough (2010) mention that given the uncertainty under which companies operate many experiments are likely to fail, which is counterintuitively valuable (Teece, 2010; Taran, et al. 2015; Waldner et al., 2015) because it informs a company about new opportunities, approaches and understanding within the constraints of organizational limited resources. Authors (Chesbrough, 2010; Lindgren, 2012; Stoilkovska et al., 2015; Waldner et al., 2015) also are trying to outline the scope of the affordable loss within which a company can maneuver and test its business model(s).

Barriers to business model innovation also cover a lot of research ground to examine what obstacles companies encounter on their way to introduce BMI (Chesbrough and Rosenbloom, 2002; Christensen and Raynor, 2003; Zott and Amit, 2010; Chesbrough 2010; Massa and Tucci, 2014; Taran, et al. 2015; Vorbach et al., 2017). Some authors (Teece 2010; Lindgren 2012; Massa and Tucci 2014; Waldner et al., 2015) examine *managerial cognition* with regards to BMI because the success of a business model may encourage managers to keep an old business model, so that they can miss the moment when the current business model is still profitable but already reaching its limits. Other authors (Chesbrough 2010; Baden-Fuller and Haefliger, 2013; Vorbach et al., 2017) study new technologies that cause a clash with the existing elements of a business model designed to commercialize another type of technologies.

Wirtz et al. (2016) conducted an expert survey to identify the areas of future research priorities. According to the conclusions of the survey by Wirtz et al. (2016), the area of business model innovation is one of the most important fields for future research, even though it is at its advanced state of development. They also mention (Wirtz et al., 2016) that the low level of an understanding of successful early-stage business model design enabling innovation determines the need to study business models of start-ups, even in contrast to established firms. The importance of narrowing the gap by achieving higher levels of understanding lies in the need to consolidate the fundamental ideas on the notion of BM and BMI to advance other research areas such as, for instance, interaction of different business model elements or

coexistence of several business models within one organization (Wirtz et al., 2016).

Brasseur et al., (2017) put the same issue on the agenda for future research claiming that it is important to study what capabilities that companies possess at the early development stage allow them to achieve successful BMI. In this case, Wirtz et al. (2016) stress the need to examine why "young start-ups" manage to introduce advanced business models more often approved by the market and stimulate business model innovation.

2.1.3 The Platform concept

Over the past 15 years, the platform economy has been heralding the development of a new perspective on doing business with the ever-increased vigor to satisfy customers' needs (Armstrong and Wright, 2007; Eisenmann, Parker and Van Alstyne, 2009; Weyl, 2010; Hagiu and Wright, 2012; Evans and Schmalensee, 2013; Parker and Van Alstyne, 2017). As Choudary (2018) assumes, the platform economy is based on the principle of on-demand solutions for customers who now can get access to digital products and services immediately. Such companies as Amazon, Salesforce, Airbnb and Uber have proved that this model of approaching customers is the most efficient because it meets the growing market expectations (Tee, 2013; Choudary, 2015; Heimans and Henry Timms 2018; Choudary, 2018). Hence, researchers seek to integrate data on different aspects of the platform economy (Youngjin, Henfridsson and Lyytinen, 2010; Kilhoffer, Beblavý and Lenaerts, 2017).

The concept of 'the platform' refers to the value arising from direct interactions between two or more various types of associated users, better known as multi-sided platforms. The platform serves as a cornerstone for "an encompassing system of use". It is built on elements which include software, service and hardware. An integral part of the platform is the so-called network effects.

So, Eisenmann et al. (2006) describe a platform as an organization that includes a variety of elements and rules that are followed by users whose transactions are influenced by network effects. Rochet and Tirole (2006) also point out the importance of network effects, which are seen as facilitated interaction and value exchange due to a platform being a special type of a business model that allows stakeholders to use a platform from both supply and demand sides. Rysman (2009) points out that these network effects are the main catalysts for the market success of platforms.

For management and business theories, platforms are a relatively new concept incorporated from distinct intellectual movements - engineering and economy (Iansiti and Levien, 2004). So, the roots of the concept are traced back to those who focused on the economic side of platforms (Rochet and Tirole, 2006; Goos, Van Cayseele and Willekens, 2011; Filistrucchi and Klein, 2013; Hagiu, 2014; Tremblay, 2016) and those who examined the technological side of them (Eisenmann et al., 2011).

On the one hand, the technological side of platforms was under investigation by authors who approached the opportunity to use the digital potential of them mainly to achieve economies of scale in product clusters (Meyer and Lehnerd, 1997). According to Baldwin and Woodard (2009), this view has stretched to

the study of platforms as technological architecture and related innovations (Rysman, 2009; Eisenmann et al., 2011; Hagiu, 2014).

On the other hand, Rochet and Tirole (2006) expressed the need to create a separate pool of research on the platform economy because traditional insights describing one-sided markets were apparently not applicable to multi-sided markets in many ways. Therefore, such researchers as Rochet and Tirole (2006) and Rysman (2009) addressed the need to focus on the unique type of an interrelationship between two or more sides of the platform, which required new tools for investigation or at least substantial changes to the old ones. Hence, a variety of research has been devoted to how platforms challenge fundamentals of economic theory such as competition, market demand along with pricing strategies (Evans, 2003; Rochet and Tirole, 2006; Tas and Weinelt, 2015).

Although research has been extensive, authors have not managed to find the common ground regarding the conceptual and integrative framework of platforms because of the striking diversity in research priorities (Rochet and Tirole, 2006; Hagiu, 2014; Gawer, 2014; Rysman, 2009). So, Gawer (2014) decided to compare and combine technological and economic perspectives on platforms to get closer to a comprehensive understanding of what they actually represent with the aim to create a springboard for further research in the field. **Table 1.** provides the comparison of two separate views on platforms:

Table 1. Economy vs Technological perspectives on platforms

Key Features	Economic	Engineering
Idea behind platforms	platforms as markets	platforms as technological architectures
Perspective	demand	supply
Focus	competition	innovation
Value achieved by	Economies of scope in demand	Economies of scope in supply
Role	Coordination of buyers	Coordination of innovators
Empirical environment	Information and communications technology	Manufacturing and ICT

Source: Gawer, A. 2014. "Bridging differing perspectives on technological platforms: Towards an integrative framework," Research Policy

Based on the identified differences, Gawer (2014) suggests that platforms can be described as meta-organization. Gawer (2014) also emphasized three main functions of platforms:

- an alignment of agents who can take part in competition;
- value creation by taking advantage of economies of scope in supply and demand;
- provision of a technological architecture based on a core and periphery.

As Gawar (2014) mentions, the main impediment for bridging current research divides on platforms lies in the lack of understanding of what organizational

forms platforms take. So, instead of exploring a single organizational context, it is critical to examine platforms in various ways and various organization contexts because constitutive agents can interact both within and across platforms (Gawer, 2014; Hagiu and Wright, 2019).

Following this suggestion, Gawer (2014) notes the existence of 3 broad types of platforms recognizable in the literature: internal platforms, supply-chain platforms, and industry platforms. The classification arises from analysing platforms in terms of various levels: firm-level, supply-chain level, and industry level respectively (Gawer, 2014). In this case, it is also necessary to mention that an internal platform broadening the scope of its activity and increasing its overall capabilities can transform into a supply chain platform and then into an industry one. But the process of transformation has not described in detail yet (Tremblay, 2016; Kind and Koethenbuerger, 2018).

As Staykova and Damsgaard (2017) point out, the large part of the current research concentrates on the evolution of platforms regarding it as a stage-by-stage process or, in other words, a platform life-cycle. So, Staykova and Damsgaard (2017) have identified 5 platform evolution stage models to understand how platforms develop over time. They outlined that a platform can go through (1) interconnected growth stages, (2) reach a certain level of maturity, (3) pass through a wide range of unique stages on its evolutionary journey, (4) reconfigure its elements continuously or (5) transform attracting more and more participants. These models reflect an enormous diversity of alternative views on how platforms introduce changes and evolve over time, which means that there are a lot of avenues for further research, especially on

such topics as boundaries of platforms, their organizational structures, the process of governance and managements, competitive strategies and much more (Tiwana et al., 2010; Gawer, 2014; Tremblay, 2016; Staykova and Damsgaard, 2017).

2.1.4 Platform Business Model and Business Model Innovation

Given the fact that platforms permeate all the sectors of the economy and present an important kind of a highly innovative and advantageous business form within different industries, the platform business model concept has received much attention in the past years (Tiwana et al., 2010). On the one hand, platforms are important in terms of platform governance (Teece, 2017) and, on the other hand, they determine the strategy of a platform business (West and Bogers, 2014; Teece, 2017).

The platform business model relates to those companies that deploy their activities on a platform (West and Bogers, 2014). The business model of the platform was under investigation of several scholars who tried to discover different aspects of it (Gawer, 2014). Gawer (2014) and Saebi and Foss (2015) state that platform business models are a special type of open business models that has the highest potential for value co-creation, which makes it stand out among other business models. Platforms are also proof that it is not enough to rely only upon superior technological features but important to opt for suitable business models. In case of platforms, technology should be backed up by an appropriate business model enabling the efficient management of network effects and the development of an advanced value ecosystem (Tiwana et al., 2010; Gawer, 2014; Kind and Koethenbuerger, 2018).

The most significant contribution in platform business model research belongs to Parker et al. (2016) who outlined 5 main aspects of platform value creation process: entirely new sources of value; experience along with products/services as part of value; unprecedented consumer-centric focus; key destination for users to obtain a good/service; rnique market aggregation of both users and products/services.

Many authors also study in detail the financial aspects of business models because they are believed to generate huge profits. For instance, Gawer (2014) outlined the reasons why platform business models are highly lucrative. He believes that platforms are conducive to the elimination of intermediary fees, diversification of profits; cheaper distribution channels, and the decrease of search, marketing and transaction costs.

Some preliminary work has shown that platform business models are revolutionary because of the innovative potential that they have. Thus, there is wide research coverage of different types of innovations related to platforms. Platform business model innovation has been studied since there was a shift from technological and economic perspectives to management one in the literature (Evans et al., 2006)

Given the fact that platform functions on open business models, they are always in search of ideas to adjust to the market and compete with rival platform businesses. Although some authors outline that some platforms develop the so-called hybrid business models having both open and closed kind of it, the most efficient way to stay afloat is to innovate a business model (Tiwana et al., 2010). However, research on platform business model

innovation is reduced to examining the main sources of related innovations and changes (Evans et al., 2006).

Although many authors highlight the importance of investigating business models and business model innovation of platforms, research on it is rather scant. It is especially explicit when it comes to start-ups because researchers tend to investigate incumbent firms or established companies that have adopted platform technology (Kortmann & Piller, 2016; Bogers et al., 2017). For instance, extensive research is done on how successful companies as Amazon, Facebook, Airbnb and Uber create, deliver, and capture value using their platforms (reference). For instance, some authors note that the relatively new platform business of Amazon – Amazon Web Service – has proven to be the most profitable and successful among other businesses. However, start-ups are harder to investigate because it is not clear whether their business model will be able to win the market over time (Vanhaverbeke, Chesbrough, & West, 2014).

2.2 Theoretical background

2.2.1 Business Model Canvas

Business Model Canvas are a strategic business model tool used to visualise the existing business model and draw an understanding of how to enhance it when needed (Osterwalder, 2004). There are 4 major cornerstones of the Business Model Canvas: Customer Interface, Value Proposition, Infrastructure Management, and Financial Aspects (Osterwalder and Pigneur, 2010). They are divided into 9 interdependent blocks on which a business model is built (Osterwalder and Pigneur, 2010). They include: customer segments, value

propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure (Osterwalder and Pigneur, 2010). The primary goal of the Business Model Canvas is to visualize and communicate ideas underlying a business model.

The Main Elements of the Business Model Canvas are examined in detail (Osterwalder and Pigneur, 2010):

1. Customer Interface

I. Customer segments (CS)

Customers are the core of each business. Hence, companies have to identify main segments to get a sophisticated understanding of the nature of their needs. There are 5 main customer segments:

- mass market
- niche market
- segmented
- diversified
- multi-sided platforms/markets

II. Channels (CH)

CHs, which are also called "customer touch points", determine how companies manage to reach their customers and deliver them a value proposition. They are supposed to:

- increase customers' awareness about firm's products and services
- help consumers to assess a firm's value proposition
- allow customers to buy certain products and services

- deliver a value position to its end users
- provide post-purchase assistance

III. Customer Relationships (CR)

CR explains what type of relationship a company has with certain customer segments. CRs usually vary from personal to automated and helps to build more solid relations with customers. The main drivers are:

- customer acquisition
- customer retention
- boosting sales

2. Value Proposition (VP)

This building block is needed to outline products and services that create value for a targeted segment. VP is the core reason why customers opt for a given company because it satisfies their needs and solves their problems. Values may be either or both quantitative (ex. speed of service, price) and qualitative (ex. customer experience)

The Main elements of the value creation:

- newness
- improving product or service performance
- customization

3. Infrastructure Management

I. Key resources (KR)

KR describes the assets that are needed to launch a business model. They helps companies to create and offer a VP, reach markets, and maintain relationships

with consumers. The main resources include physical, financial, intellectual, or human ones.

II. Key activities (KA)

The KA building block refers to operations that a company need to conduct to make its business model viable. They can be categorized into 3 main groups:

- production (manufacturing companies)
- problem-solving (knowledge management and continuous training)
- platform/network (platform management, service provisioning, and platform promotion)

III. Key Partnerships (KP)

KPs determine main suppliers and partners that are necessary to make a business model work. There are 4 partnership types:

- strategic alliances between non-rivals
- strategic partnerships between rivalry firms
- joint ventures to establish a new business
- buyer-supplier partnership

Companies are usually motivated to create partnerships to (1) achieve optimization and economy of scale, (2) reduce risk and uncertainty, and (3) acquire resources and activities.

4. Financial Aspects

I. Revenue Streams (RS)

RS represent the profit a firm generates from each customer segment. So, companies determine how much consumers are willing to pay for the value it is

ready to bring to the market. A BM can have 2 revenue streams: one-time transactions and recurring ongoing payments.

II. Cost Structure (CS)

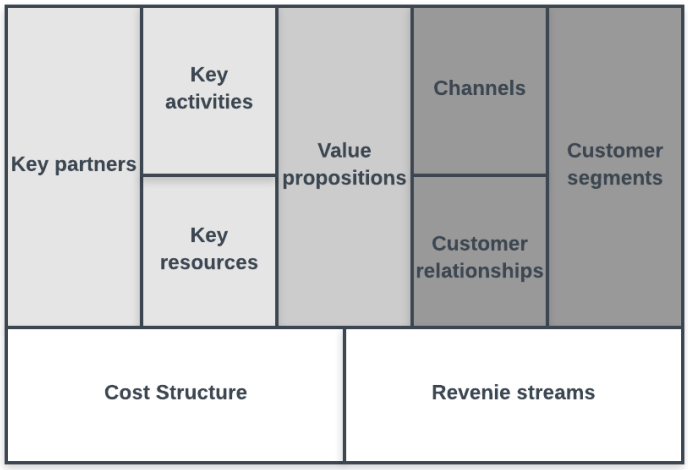
CSs include all costs required to operate a business model. Certain business model are more cost-drive compared to others, though the main goal of any business is to achieve the minimization of expenses. Cost structures can be cost driven and focus on cost minimization or value-driven and focus on value creation. CSs usually have:

- fixed costs
- variable costs
- economies of scope and scale

The nine building blocks comprise a framework for a Business Model Canvas tool (Fig. 1). Osterwalder and Pigneur draw an analogy with "a painter canvas", which allow to sketch pictures of new or already existing business models. They stress the importance of printing out the BMC on a large surface so a group of people can have a practical instrument for understanding, analysis, and discussion (Osterwalder and Pigneur, 2010).

Osterwalder's and Pigneur's (2010) concept has been widely used in practice in different companies and sectors .The popularity of this model is attributed to the fact that it is comprehensive but simple to use. It is generic in its nature, so it can be modify to be suitable for various business situations.

Fig. 1. The Business Model Canvas Template



Source: Osterwalder, A. (2004), 'The Business Model Ontology: A Proposition in the Design Science Approach', unpublished dissertation, University of Lausanne

Osterwalder's and Pigneur (2010) note that to solve big issues of the modern world it is important to create "bold" business models and then turn them into a sustainable enterprise. They link the Canvas with Jay Galbraith's Star Model that includes five specific areas: Strategy, Structure, Processes, Rewards, and People. The Star Model can be used as a tool to execute, manage a business model and introduce innovations into it.

2.2.2 Reasons for applying Business Model Canvas

In the framework of this thesis, Business Model Canvas is used as a theoretical model that helps to understand what allows platform startups to spur business innovation. This application of this model is attributed to the fact that the canvas ensures 'a shared language' when managers introduce business model innovation (Osterwalder & Pigneur, 2010). Besides, when it comes to the need to analyze some aspects of the business model innovation process, the canvas can provide transparency that enables to see all subtle changes in activities and decisions of managers who are responsible for it.

Given the fact that business model innovation is a continuous process, it is important to examine the current business model of a case start-up and see what building blocks of it have been changed and why. It gives a researcher of this paper a chance to see what areas are exposed to change when a business model is introduced to the market and how it is different from the initial plan. Besides, it will also help to discern what elements and decisions of platform start up managers boost innovations. Business Model Canvas is also useful to assess the managerial perception of the need to innovate a business model and evaluate to what extent managers govern business model innovation process.

Thus, the chosen theoretical framework shapes the research questions that needed to be stated in order to understand the overall business model innovation process of a platform startups and its distinctive features:

RQ1: How do managers of a platform start-up change their initial business model elements, while testing their value proposition(s) in the market?

RQ2: How do changes of the initial business model design form business model innovation?

To be able to use Business Model Canvas it is important to work with qualitative data, thus, there is a need in using a qualitative methodology. Besides, this model requires studying certain startups to provide greater clarity of an actual situation, which, in turn, highlights the feasibility of using a case study method.

2.3 Literature review conclusion

The purpose of the literature review was to get an idea of different aspects of business model discussion in the context of ‘platform economy’. There has been much research conducted but, having in view the complexity of issues related to platform start-ups, there is a great number of current research shortcomings needed to be addressed. This paper specifies the focus on an existing gap arising from the lack of understanding of how platform start-ups maintain business model innovation in the long-run. A narrowing of this gap is believed to be a good contribution to the already formed considerable body of knowledge because it will help to augment theoretical knowledge with practical grounds.

Chapter 3 – Research Methodology and methods

This chapter provides an overview of a methodological position of the paper taken to address the problem of business model innovation of a platform start-up. It also specifies methodological choices, methods, and techniques used to plan, design, structure and conduct qualitative case study research. So, the chapter encompasses the overall philosophical paradigm of the study, research methodology, research design, data collection methods, and it also outlines the phases of data analysis.

3.1. Research philosophical framework

Every research begins with identifying its philosophical stance based on a research paradigm, which is believed to be a defined set of interlinked assumptions and beliefs about the reality expressed by the author (Kuhn, 1962). The explanation of a research paradigm is critical because it conveys what values and beliefs shape a researcher's perspective on the world (Bryman and Bell, 2011). There are two main conflicting types of research paradigms: scientific and humanistic (Bryman and Bell, 2011). The humanistic paradigm is used as a core of the study because the author of the study believes in the existence of homocentric reality with numerous contextual verities.

Thus, from an ontological viewpoint, the reality consists of multiple subjective truths because finding a single truth is not a doable task since reality is shaped by numerous social actors and not external to them (Bryman and Bell, 2011). As for epistemology, the nature of knowledge is determined through the prism of interpretivism because the paper studies a phenomenon of start-up managers' unique experiences (Trochim and Donnelly, 2008). Interpretivism

also demonstrates that the researcher of this study is intended to obtain necessary insights infiltrating the social world of studied subjects to investigate the phenomenon from within in a subjective and empathetic way (Trochim and Donnelly, 2008). Hence, this paper provides a contextually bounded view of the phenomenon under investigation.

The research approach is inductive because it helps to 'obtain a close understanding' of the studied complex phenomenon (Trochim and Donnelly, 2008). Given the fact that it is not clear what research results will be obtained, induction seems to be the most suitable approach that provides a great deal of leeway for a researcher (Trochim and Donnelly, 2008).

3.2 Research methodology

Bryman and Bell, 2011 (2008) point out that the main goal of research is to extend the existing knowledge system in a particular discipline through well-organized "methodological inquiry and investigation". Qualitative and quantitative approaches or a combination of them can be used to answer the question of the study and thus enrich the knowledge pool (Bryman and Bell, 2011). Each of the approach is built on a specific paradigm encompassing a comprehensive idea of what constitutes a reality (ontology), the study of reality (epistemology), and a system of methods used to explore reality (methodology) (Bryman and Bell, 2011).There is a long-standing philosophical dispute over the value and reliability of these two research strategies (Trochim and Donnelly, 2008).

Quantitative approach is borne out of the strong belief of scientists in numbers, statistical data, and mathematical concepts because they help to achieve the objective truth about reality (Johnson and Onwuegbuzie, 2004). By contrast, a qualitative research strategy seeks to collect and explore non-numerical data using such techniques as content analysis, discourse analysis, interviews, focus groups, and observation of people or processes in natural settings. It revolves around the analysis of words, definitions, descriptions, and symbols to express the various patterns of reality.

The study implies the need to undertake **qualitative research** because the ontological nature of it is based on the notion that the researcher' perception of reality is interlinked with the multiple truths of others, which, from an epistemological perspective, gives him or her a chance to enhance mutual understanding of the studied area (Bryman and Bell, 2011) It is appropriate when research seeks to fill gaps regarding ongoing academic research and address research questions novel to the phenomenon under investigation (Yin, 2013). Qualitative research is chosen because the research purpose requires dealing with people who share their unique experiences and related thoughts to clarify activities and decisions bringing success to platform start-ups and their business model innovation processes. As Yin (2003) states, a qualitative research approach enables to achieve a comprehensive understanding of large volumes of unstructured data by interacting with the research participants who find themselves at the centre of events related to the studied problem.

The purpose of research also determines what approach: descriptive, exploratory, explanatory, or problem-solving suits best (Saunders et al., 2009).

Given the fact that research aims at exploring what facilitates business model innovation in platform start-ups, an **exploratory approach** is the most appropriate option. This approach provides an opportunity to get unexpected findings and data, and thus obtain more reliable results (Bryman and Bell, 2011). The flexibility of an exploratory approach lies in the fact that it enables a researcher to narrow the initially broad ideas into specific categories to achieve the research goal consecutively. Eisenhardt (1989) claims that "exploring" is needed when the researcher is intended to evaluate and analyse the particular phenomena and get new insights into it.

3.3 Research design

Research design is part and parcel of any research, and reflects the logic that the author adopts to combine research problem and questions with the empirical evidence to draw reliable conclusions (Yin, 2003). Put it differently, research design is the author's endeavour to map his "research journey" to get from point A, which refers to a set of research questions, to point B, which is a set of answers to these questions (Yin, 2013). Yin (2013) also place emphasis on the fact that research design determines the logical scope of proof that enables the author to make conclusions about interconnection of investigated variables. Eisenhardt (1989) considers research design as a project of research that covers 4 main "what": what questions to ask, what data are needed, what data to collect, and what data means. The research questions of the study require case study research design because, as Yin (2013) argues, the particular need for this type of research is attributed to the desire to grasp the complexity of phenomena under investigation.

3.3.1 Case- study method

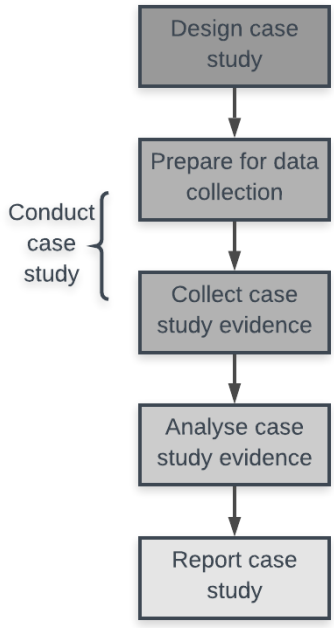
The qualitative methodology works best when it is backed up by a case study method because, as Sturman (1997) states, the latter allows a researcher to get a comprehensive description of a case through its characterization and then obtain case-related qualitative data consequently generalized to deepen incomplete academic knowledge. This approach also takes into account the evolving nature of the case (Yin, 2003), so it helps to eliminate the problem inherent into Business Model Canvas, which is blamed for being just a retrospective snapshot of a company's value architecture.

According to Yin (2003), there are two main elements of a case-study definition. Firstly, a case study is "an empirical inquiry" that examines an event, situation, or notion deeply and in natural settings (Yin, 2003). Secondly, case studies address a distinctive phenomenon and, in doing so, it is inevitable that there will be more points of interests compared to data points, as there are multiple sources of data (Yin, 2013). The twofold nature of case studies highlights the comprehensive and all-encompassing particularities of them.

Case studies are very strong compared to other methods because they help to obtain high conceptual accuracy and reliability along with strong grounds for further research to augment the knowledge on a continuous basis . This method frames a flexible research design, which enables an author to take into account data that has initially been regarded as irrelevant. Yin (2013) claims that a case study method is useful because it explains both the process and the result through observations and examination of the case under investigation. This

paper follows a high-level case-study methodology offered by Yin (2013) (Fig.1).

Figure 2. High-level case-study methodology by Yin



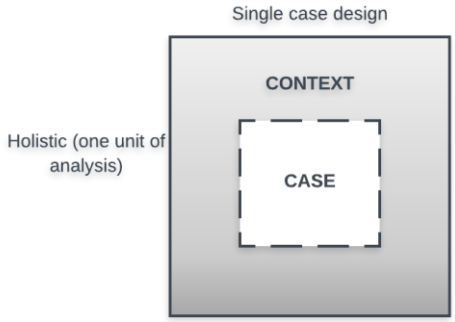
Source: Yin, R. K. 2013. 'Case Study Research: Design and Methods', Thousands Oaks, CA: Sage publications.

3.3.2 Case-study research design

I. Design case study. According to Yin (2013), there are four types of a case study research design. He notes that case studies can be either single or multiple and thus will be based on either a holistic or an embedded approach (Yin, 2013). A holistic approach is used when there is only one unit of analysis, while an embedded approach is taken to study multiple unit of analysis. To address the research problem, it is important to use a single case study method, where platform start-ups are examined as a case. Besides, a holistic approach is used because there is a single unit of analysis. The format of the single case study is shown in Figure 2. As Yin (2013) points out, single

case studies with one unit of analysis do provide compelling insights, as long as the single industry, organization, or event have attributes necessary to achieve the research purpose, and the researcher seeks to examine them in detail.

Figure 3. Single case design with one unit of analysis



Source: Yin, R. K. 2013. 'Case Study Research: Design and Methods', Thousands Oaks, CA: Sage publications.

II. Prepare for data collection. Before collecting the data it is important to select cases and draw up a case study protocol to be able to visualise within what framework a case study is supposed to develop (Yin, 2013).

A. To select a case, criterion and typical case sampling strategy is chosen as the most appropriate ones. Criterion strategy is suitable because there have been identified certain criteria that a startup should meet to be selected. As for a typical case strategy, the selected case should not be deviant in any way or, otherwise, it will be impossible to understand the key aspects of a studied phenomenon and then attempt to generalize them.

Criteria for start-ups are determined by the following research questions:

RQ1: How do managers of a platform start-up change their initial business model elements, while testing their value proposition(s) in the market?

RQ2: How do changes of the initial business model design form business model innovation?

So, in accordance with research questions, this paper focuses on start-ups operating on platforms in a B2C sector. Besides, start-ups should not test their business models on the market for more than one year because it is necessary that managers clearly remember all the details about their initial plans. Information on the case will be presented in the Chapter 4 that provides research findings.

B. The next step of preparation for data collection is to create a case study protocol (CSP), which consists of a set of guidelines used to organize and govern a case study project (Yin, 1994). A case study protocol thus determines the procedures and rules underlying a case study research project. It is composed of 6 sections: preamble, general, procedures, research instruments, data analysis guidelines, and appendix (**Appendix 1**).

Data collection (III) and analysis (IV) are described in the following subsections of the chapter.

3.4 Data collection

The process of the data collection within the study reflects the qualitative research nature, and it implies narrative and verbal descriptions of nuances and specifics (Yin, 2003). Case studies imply flexibility with regard to data

collection methods used to answer research questions. A broad range of methods can be used to gather information, starting from direct observation, participant observation, interviews, focus groups, documentary sources, archival records, and physical artifacts (Myers, 2009). A case study research is best done when interviews become the main source of evidence.

Yin (2013) offers 3 main principles of data collection that help to derive the maximum benefit from the sources of evidence. The first principle refers to the unification and integration of a wide range of data sources to explore a certain case. The analysis of several data sources is the most desirable option when it is necessary to make significant insights to appear (Myers, 2009). The second principle deals with the creation of a case study data base regarding the idea of structuring the information collected for cases (Yin, 2003). The third principle is based on the notion of maintaining a chain of evidence with the aim to help the external reader to follow the author's logic (Yin, 2003).

Yin (2003) distinguishes 6 main sources of evidence: documentation, archival records, interviews, direct observations, participant-observations, physical artifacts. This paper is based mainly on 2 sources of evidence: documentation to collect secondary data and interviews to gather primary data (Tab. 2). However, documentation consists of multiple subcategories.

Table. 2 Sources of primary & secondary data

Types of data	Sources of evidence
Primary data	Semi-structured interviews with 3 co-founders of a platform start-up and 1 financial manager.
Secondary data	Documents and articles relevant to the business model and business model innovation topics; A website of a selected platform start-up.

Source: Created by the author based on the Yin's choice of sources of evidence

It is also important to mention that the use of more than one source of evidence implies triangulation, which implies cross verification of evidence (Patton, 2002). According to Yin (2013), there are 4 types of triangulation: data triangulation, investigator triangulation, theory triangulation, and methodological triangulation. The purpose of this study requires data triangulation, which is also based on the convergence of evidence from different sources to address the same fact (Fig.4; Yin, 2003).

I. Documents and other sources

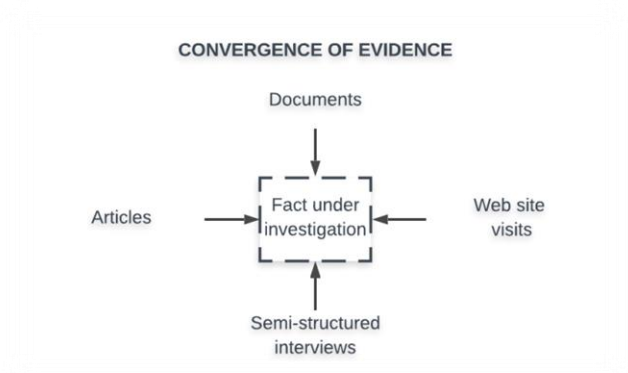
According to Yin (2003), documentary information is always appropriate for any case study topic. Information can be presented in different types of documents, starting from e-mails and written reports to formal studies and administrative documents (Yin, 2003). Yin (2003) highlights that even though documents are very useful and valuable, they can lack accuracy. When it

comes to case studies, documents are used to verify and augment data gained from other sources of evidence (Myers, 2009). Hence, any case study should be based on a detailed review of different documents.

II. Interviews

Yin (2009) highlights that interviews are critical when it comes to case studies due to the fact that they enable the researcher to study an investigated phenomenon from the angle of a respondent who holds unique and valuable insights. Specific case-related features, patterns, and intricacies are likely to be discovered during interviews resulting in the accuracy of study findings. It is indispensable to conduct several interviews to smooth out potential biases arising from a limited individual perception (Myers, 2009).

Figure 4. Triangulation of Data



Source: Yin, R. K. 2013. 'Case Study Research: Design and Methods', Thousands Oaks, CA: Sage publications.

Yin (2003) differentiates between two types of interviews: structured and qualitative. Structured interviews consist of predetermined questions, and the researcher has to accurately follow them while conducting an interview (Yin, 2003). Besides, during structured interviews the researcher has to try to reflect

the behaviour of the participant (Yin, 2003). Qualitative interviews are more complex compared to structured ones, and different in major ways from them (Yin, 2003). The relationship between the researcher and the respondent is not strictly framed, and the former does not need to accept the behaviour patterns of the latter (Yin, 2003). The qualitative interview usually takes a form of conversation customized and individualized to every respondent (Yin, 2003).

Some authors (Myers, 2009) divide qualitative interviews into semi-structured and open. Semi-structured interviews include the so-called supportive questions the format of which can be changed if the researcher feels the need to do so (Yin, 2009). This kind of interviews, on the one hand, ensures that the researcher remains focused on an investigated problem and, on the other hand, he or she is encouraged to be agile and cover other topics. Open interviews are conducted when the researcher is willing to take any direction within the field of a study and not to reduce the choice of available questions (Yin, 2009).

Yin (2003) mentions that the researcher should be able to learn from people's experiences rather than examine them. In doing so, the researcher has to achieve an extended conversation on the part of the participant, encouraging him to speak as much as possible (Yin, 2003). Besides, respondents need to be given a chance to express and manifest their own priorities and their own way of perceiving the studied topic, thus the interviewer must be nondirective (Yin, 2003). Staying neutral is also important to decrease the odds of researcher's biases or preferences influencing the words and ideas of participants (Yin, 2003). The researcher must be able to take responsibility of the conversation and maintain good interpersonal connection with the interviewees showing

sincere interest (Yin, 2013). Beyond that, to conduct a good qualitative interview, it is critical to use an interview protocol as a guide for conversation and analyse participants during the interview to get all the necessary details (Yin, 2013).

For the author of the study, semi-structured phone or skype interview format appears as the most appropriate choice among the other two since it provides flexibility along with a structure of follow-up questions that help to encompass all relevant areas. In addition, it helps to enable the respondent to create his own sequence of topics under investigation within the studied topic, which is likely to have its own value for the paper (Yin, 2013). So, an interview guide was drawn up in advance of conducting interviews to encourage respondents to share their perspectives on the examined issue in their own way. It is important to mention that the prior design of an interview guide has helped to enhance knowledge of how to conduct an interview without imposing preconceived ideas on interviewees and asking them suggestive questions (Appendix 3). Consequently, it ensures greater reliability and increases the quality of information gathered from interviews (Magnusson & Marecek, 2012).

Interviews are conducted with 3 co-founders of a Start-up 1 and with 1 financial manager. and transcripts of interviews are not enclosed to the document because they consist of sensitive data related to start-up's strategy and tactics, so managers of agreed to take part in an interview anonymously. The invitation to participate in an interview can be found in Appendix 2.

Interview questions are determined by the theoretical framework – Business Model Canvas. The first part of questions is necessary to ask to be able to collect data for filling the business model template for Startup 1. The second part of questions is necessary to ask to see what changes have been introduced to the business model of Startup 1 and thus evaluate its business model innovation. Interview questions are presented in the Interview protocol (Appendix 3).

3.5 Data Analysis

Data analysis is a critical part of qualitative case studies (Stake, 2000), which is based on logic and creativity (Yin, 2003). As Yin (2003) indicates, the data analysis aspect of research is tricky because it is not based on established formulas, resulting in high dependency of the analytical framework on the researcher's distinct way of empirical thinking. So, the lack of conventional data analysis routine requires a researcher to be able to (1) check and recheck how accurate data is, (2) make analysis strong and fully complete without 'cutting corners', and (3) continuously admit the undesired biases arising from his values and beliefs (Yin, 2003).

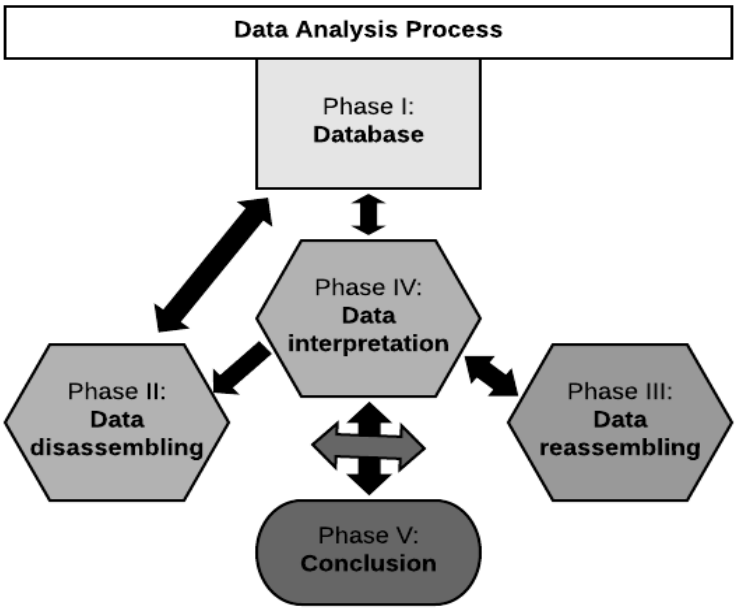
As Yin (2003) points out, every qualitative research is generally structured around the five-staged cycle of the data analysis process, which includes (1) the development of the database, (2) the breakdown of complied data into smaller fragments, (3) the reorganization of previously disassembled pieces of information, (4) the interpretation of reassembled data, and finally (5) conclusions (Fig.5). According to Yin (2003), the cycle gives the researcher

increased flexibility because of its non-linear nature, which implies that he or she can go back and forth between stages, for instance, to test different coding techniques or repeat some phases for the sake of greater results precision.

3.5.1 Application of the five-phased cycle for data analysis

The data analysis process of this paper follows the logic of the five-phased cycle because this framework is validated by numerous researchers, who possess extensive experience in carrying out different types of qualitative studies, including case studies (Rapley, 2007).

Figure 5. The five-phased cycle for data analysis

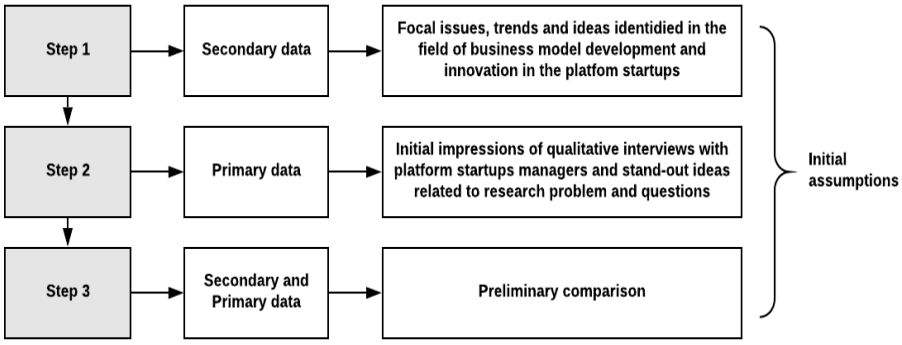


Source: Yin, R. K. 2013. 'Case Study Research: Design and Methods', Thousands Oaks, CA: Sage publications.

Phase I

As Yin (2003) notes, the development of the database is an important "prelude" to the entire data analysis process because this type of organising efforts determines the eventual research success, its rigour and validity. This phase implies a researcher to reread and study data collected from various sources of evidence and make sense of it. The database is usually made up of specific contextual items such as field actions, events, individual views, explanations and opinions taken from interviews. The database of this study is planned to follow the logic reflected in the Fig. 6.

Figure 6. The Database Compilation



Source: Created by the author based on Mayring's (2000) and Yin's (2013) papers

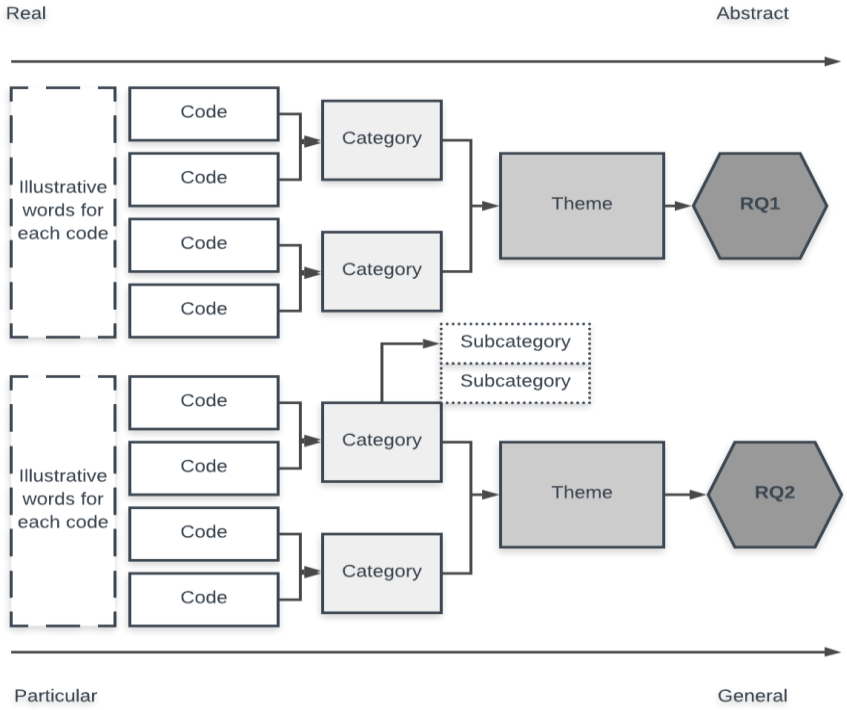
Phase II

The 'Disassembling' phase is essential to move to a higher conceptual level and analyse data in a more systemic and consistent manner (Yin, 2003). It usually implies a use of data coding techniques to group and classify broad data items identified in the first phase (Yin, 2003). Codes usually concisely describe the succinct meanings of units and thus reflect on obtained information in novel ways relevant for the research problem. Fig. 7 shows how the author of the paper uses an open coding technique

Phase III

Moving on to the stage where data is supposed to be reassembled, it is envisaged that a researcher is able to make deeper sense of it, " playing with the data" and thus identifying new patterns, categories, or data arrangements that would reflect the research questions (Yin, 2003). The third phase is reflected in Fig. 7. Categories are identified during the data analysis process when all the codes are accurately identified.

Figure 7. Data analysis process



Source: Created by the author

Phase IV

The 'Interpretation' phase leads a researcher to a 'common but still unchartered territory", where he has to provide either or both the description and explanation of what reassembled data means because even well-structured data do not "speak for themselves" (Yin, 2003). Yin also points out that interpretations can take any route but they should be 'empirically grounded'.

So, he assumes that the ideal interpretive framework has to be based on the newly found patterns permeating the good portion of data (Yin, 2003). Yin (2003) notes that interpretations start with original research questions and are structured around them.

Phase V

The fifth 'Concluding' phase implies a solid version of interpretations on the basis of which a researcher can unify the entire study (Yin, 2003). In essence, conclusions capture the overall value of the study (Crabtree et al., 2009). Besides, it is important that conclusions do not restate the results of the study but reveal new areas for further research (Yin, 2003). The last fifth chapter of the paper covers conclusions drawn from the findings.

3.6 Validity and Reliability

Research validity is measured by the credibility of research results, and can be external and internal (Myers, 2009). As for internal validity, it is determined by the truthfulness of the conclusion, which is achieved by the use of multiple sources of evidence at the data collection research phase. As for external validity, it deals with the extent to what conclusions can be generalized and applied in other contexts (Yin, 2003). Even though only one startup has been examined, it is still possible to generalize conclusions because the case is typical and properly investigated.

Reliability of research is high if other people who possess necessary research skills are able to reproduce the same research conclusions (Myers, 2009). So, it is worth mentioning that the framework of the research is clearly stated above,

which make it easy to replicate this research. However, conclusions can slightly differ from those drawn within this study because, as Yin (2003) points out, the interpretation of analysed data and subsequent conclusions rely on many factors such as researcher values, focus, knowledge, background, and his ability to communicate with experts to get an estimate of his research

3.7 Limitations and delimitations

There are some limitations of the study that related to research design and preparation for data collection. Firstly, some researchers claim that case studies are questionable in terms of their rigour because they can be biased (Yin, 2014). Secondly, even though single case study can provide convincing data, the number of start-ups could have been greater to provide more detailed insights into the investigated topic. Thirdly, the study has not been pilot tested, even though Yin (2003) points out that it is better to do it to ensure a higher level of research validity.

As for delimitations, the study lacks such qualitative data collection techniques as direct observations and open interviews that might have triggered new themes and topics within the study.

Chapter 4. Findings and Discussion

This chapter presents findings obtained from the analysis of data in accordance with the research purpose, which lies in the need to examine business model innovation of a platform startup to get practical insights into it. It offers an overview of the case, key findings with the use of Business Model Canvas and discussion.

4.1 Case

The selected case represents a platform startup that allows its participants to find computer game playmates, compete, grow, and capitalize on their skills. It was created in San-Francisco (CA) by 3 friends who decided to unleash the potential of a platform technology. As mentioned above, this start up is labelled as Start-up 1 to respect the right of the managers to remain anonymous. The interviews were conducted with three co-founders, one of which holds a position of CEO, and with one person who works as a CFO. Before introducing the business model to the market, Start-up 1 had launched a few pilot projects to validate their business model and decide whether they would stick to it or not. Pilot tests had verified the potential viability of the developed business model, and thus Star-up 1 entered the market in November of 2018.

4.2 Key Findings

I. Changes in the Startup1 Business Model

Given the fact that Start-up 1 has encountered a number of problems when it entered the market, there were some gaps in the initial business model design. Managers did not take into account ‘legal standards in e-sport’ [CEO], ‘certain expenses’ [CFO] and ‘licenses’ [Manager 1], so they were not able to make

profit immediately as it had been planned. Besides, their value proposition required revision in the long-term because there was ‘a lack of platform functionality’ [Manager 1], and dearth of inquiry into ‘platform users’ needs’ [CEO]. Business Model Innovation has given a Start-up 1 a chance to correct some oversights related to a business model design when the value proposition has started to be tested in the market.

A good starting point was that managers put changes forward from the very beginning and started to add certain twists to their business model, which was innovation per se as it was novel to the market. In terms of Business Model Canvas, managers of Start-up 1 have focused mainly on changing 5 building blocks of their business model: value proposition, relations with their customers, key partners, cost structure and revenue streams (Fig.8).

Value proposition

Managers of Start-up 1 have decided to focus more on providing greater support to customers, so they can make money participating in competitions. They have identified users’ need in ‘text-based guides’ [Manager 1], ‘personal coaching’ [Manager 1], and ‘educational quests’ [Manager 2]. So, they have expanded into training gamers to make them ‘pump up their skills and take part in tournaments

with a larger number of teams’ [Manager 1] and thus potentially earn more money. They also agree that their platform requires a lot of ‘work and tweaking to achieve greater automation’ [Manager 1].

Key partners

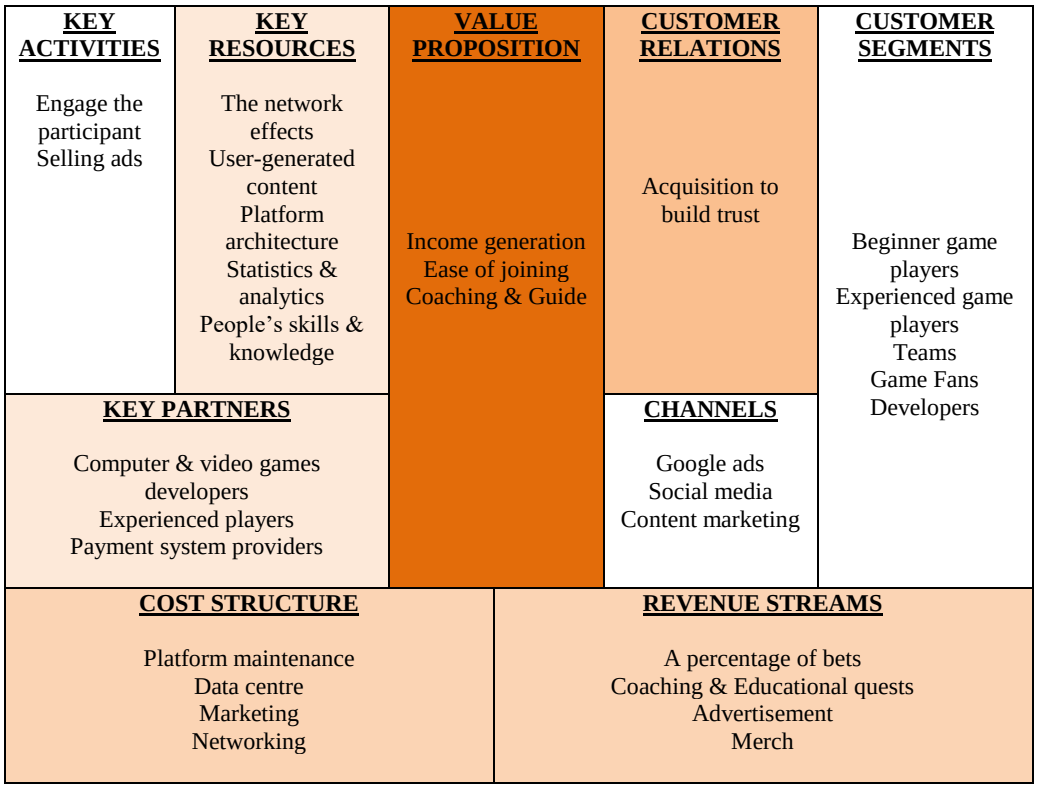
Start-up 1 had to establish 2 main types of partnerships: with video and computer game developers and experienced gamers. Partnership with video

and computer game developers allows managers not to break any legal rules, and engagement with experienced users help to save on coaching because they can provide recommendations for others in exchange for various benefits.

Key resources

Managers of Startup1 are also developing knowledge an insights related to the market conditions and consumer demands thus building up the understanding of how to improve their BM design.

Figure 8. Business Model Canvas for Start-up 1



Source: Created by the author based on Osterwalder's Business Model Canvas (2004)

Customer relations

Managers of Start-up 1 recognize that they should customize their offering to the maximum because consumers are the most valuable source of innovation. Managers of Start-up 1 have revised their interaction with consumers because they understand that users are those who determine the success of the company

in the long-run. ‘The users of [the name of the start-up] always contribute, they always supply ideas…so we are trying to keep up with them’ [Manager 1].

Revenue models & Cost structure

As managers of Startup 1 have decided to introduce new offerings as coaching and educational quests, they had to revise the way they capture value floating into their value network. It gave them a chance to reveal new revenue streams and revise cost structure to compensate for unplanned expenses.

II. Business Model Innovation of Startup 1

Changes that Startup 1 has introduced represent innovations in all three dimensions: value creation, value delivery, and value capture. Managers of Start-up 1 have made it clear that they introduce changes concurrently, which ensures efficient business model innovation. The change in one dimension immediately entails changes in two other dimensions, which ensures the high level consistency of business model innovation process.

The coherence of business model innovation also indicates that managers of Start-up 1 also recognize only substantial changes along the value network will help them to address the dynamics of external environments. ‘Subtle enhancements and profound changes in are key’ [Manager 2] because competition is intense due to the fact that e-sport has ‘a bunch of monetization opportunities’ [CEO], and many are willing to exploit them

4.3 Discussion

I. The nature of changes. According to Chesbrough (2010), the success on the market no longer revolves solely around innovative goods and services or processes but is also heavily reliant on a firm’s business model because BM is considered to be an important competitive device. The findings presented in the

second part of the chapter allow the author of this paper to assume that this idea fully resonates with the managers of Start-up 1 that was chosen as a main unit of analysis within this study.

Even though managers of Start-up 1 do not use any conceptual tools, such as Canvas, to display and visualize various aspects of their business model and they do not articulate their business model intentionally, they intuitively manage to work with it in a very efficient way. So, they believe that they introduce changes which are necessary to address problems that arise on the market while testing their value propositions. But all these changes are not just a solution for occurring problems - they have a deeper sense in terms of their nature.

These changes relate to the strengthening of the Startup 1 position on the market or, in other words, to the enhancement of Startup 1 competitive advantage by the means of improving the business model design. Thus, the changes, constantly being introduced to the market, form the business model innovation process that unleashes and maximizes the competitive potential of a Start-up 1 business model. The fact that the changes adopted at the early stage of the Start-up 1 development are a part of BMI rather than other forms of innovation shows that managers draw more on their value architecture rather than on platform technology itself.

The only caveat to this is that they are also working with the improvement of the functionality of their platform, which can be seen as a change related to the innovation of services. However, as Osterwalder (2005) argues, such changes

in e-business signify business model innovation because they refer to the key resources building block of Business Model Canvas. Put it differently, managers acquire new resources in the form of knowledge and new insights into the market conditions and thus change their activity system, namely their business model.

II. The distinctive features of BMI in terms of Business Model Canvas

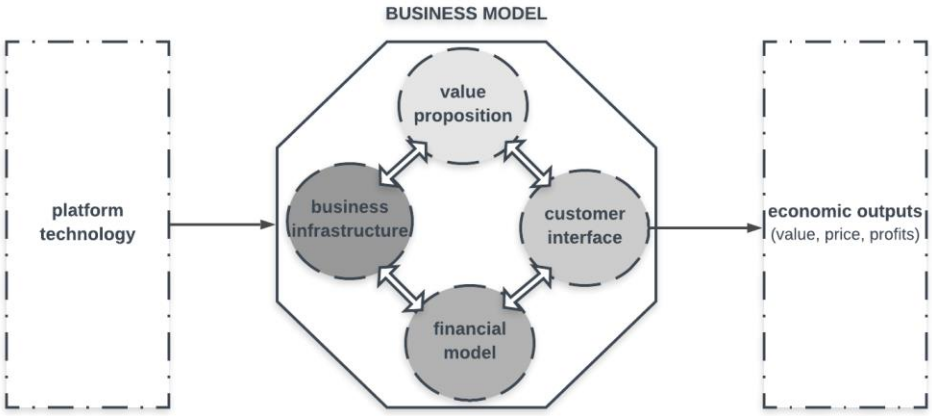
The changes, shown in the business model template of Startup 1 (Fig. 8), shape business model innovation mainly since they occur in all three value dimensions. Even though Ritter and Lettl (2018) claim that changes in one dimension are enough for referring to business model innovation. Spieth and Schneider (2015) who created a first mathematical model to measure BMI says that BMI occurs when all three dimensions are reconfigured to some extent simultaneously.

It has been noted (Svahn et al., 2017) that startups usually put less emphasis on value capture because the early-stage development phases imply that startups explore sources of value, so they are usually more concerned with value creation and, albeit to a lesser extent, with value delivery. However, this idea has been challenged by some authors (Osterwalder and Pigneur, 2010) who assume that such an approach to BMI even by startups reduces the efficiency of business model innovation in the future because it does not fulfill the main task of BM.

As it is shown in Figure 9, the role of the business model that consists of value proposition, customer interface, business infrastructure and financial model

(Osterwalder and Pigneur, 2010) is to convert technological inputs into economic outputs or, in other words, to get profit without which there is no reason for using even the most cutting-edge technology. Business Model Canvas implies that the financial model part of a business model shows how a startup or any other firm capture value. As Figure 9 demonstrates, financial aspects are equal to three other aspects of BM when it comes to achieving the economic value of a certain technology. So, BMI has to occur simultaneously in every part of the value framework to achieve the best economic results rather than only in value creation and delivery.

Figure 9. The Role of Business Model



Source: created by the author based on Osterwalder and Pigneur (2010)

In the case of Startup 1, its Business Model Canvas, against all expectation, illustrates that value capture or financial aspects are changed subsequently to other changes, hence, there are stronger chances to get the highest possible economic outputs.

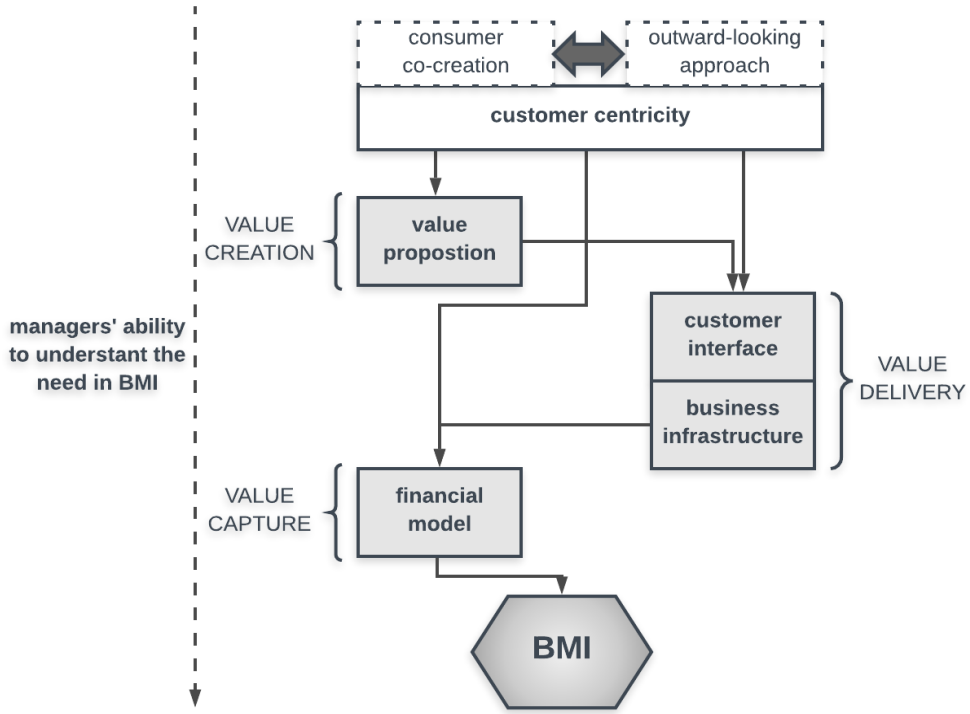
Beyond that, managers of Startup1 mainly reach out to consumers to understand what their platform is lacking and thus improve their value proposition. This high level of customer-centricity of BMI is what helps managers to ensure success in the long run. However, consumer-driven business model innovation is a common practice for achieving success in the market. There are two main factors that make this consumer-centricity of BMI special. Firstly, that managers have the potential to initiate radical change applying a proactive outward-looking approach. As Business Model Canvas suggests (Fig 8), managers are looking for the sources of business model innovation opportunities solely beyond the boundaries of their business, which, in turn, helps them to find the fit and thus blend in with externalities. So, managers enhance their consumer-centricity through changes in 'key resources and 'key partners' building blocks as well. For instance, new partners or new knowledge help to better modify BM. Secondly, consumer co-creation underlies innovative networking-centric offerings.

By a reversal of logic, the main barrier to BMI identified in the academic literature by such authors as Chesbrough (2010) and Teece (2010) is not applicable in the Startup 1 case. This barrier is about the managers' inability to see the need in innovating their business model in the course of a business model life-cycle. Even though it has been mentioned above that managers do not use any purposefully articulated approach to either BM or BMI, they do intuitively recognize that there should not be any resistance against BMI because it determines how quick they will be able to make a transition to an

established firm and start fully executing their business model and thus get more economic outputs.

It has also been clear from the way they assess the Business Model Canvas building blocks that managers share a similar picture of where Startup 1 in terms of its development and more importantly where they want it to be within 5 year period. So, cognitive constructs of managers on which BM is being based merge into a single perspective on BMI. This common managerial vision is hard to achieve (Chesbroug, 2010) because of the high potential of interpersonal clashes that are likely to occur when BMI is introduced. Nevertheless, managers of Startup 1 handle it successfully.

Figure 10. The BMI processs of Startup 1



Source: Created by the author

Figure 10 shows the BMI process of Startup1, which combines three critical aspects: three-dimensional coherent innovations in the BM design, customer-centricity based on a robust outward-looking approach and consumer co-creation and managers' cognitive ability to recognize the need to introduce BMI. These three disctinctive feature create an efficient BMI process of a platform start-up.

Chapter 5. Conclusion

Research purpose

Before drawing the main conclusions of the study, the main research purpose was to investigate business model innovation of a platform startup. This purpose was derived from the need to close a gap on BMI in the existing literature. As it has been identified in Chapter 2, the business model innovation process of platform startups has not been properly analyzed by researchers, although it is very acute since companies that have been disrupting the market over the recent years emerged from platform startups. Thus, the focus of this paper is on the nature of business model innovation of a platform-start that finds itself at the very early stage of its development. The author has used a case study method and drawn on qualitative data obtained from interviews and a wide body of literature in order to identify the distinctive features of platform startup BMI and understand the nature of it.

Conclusion

Digital transformation opens a wide variety of new wealth and profit opportunities because digital technologies including platform technology help to create novel ways of doing business. Such technologies enable the development of solutions that people were not able to even imagine in the past but, in hindsight, everybody assumes that such solutions were always much-needed. From this perspective, the analysis conducted within the framework of this paper conveys that BMI undertaken by managers is essential because it is what helps to find a suitable business model and thus release the potential of

the disruptive technology. The efficient BMI process from the early-stage development phase can ensure further success, and this assumption should be taken in account by those companies that want to venture into new fields by using platform technology or any other digital technology.

Contribution

Starting from the theoretical contribution of this thesis, it uses Business Model Canvas to investigate the process of BMI rather than just a snapshot of a particular business model. Researchers make little use of Business Model Canvas to see the dynamics of the innovation process, even though, as Osterwalder and Pigneur (2010) mention, it is an appropriate tool to do so. The presented way of using Business Model Canvas to examine BMI can help researchers or managers to understand what changes form BMI and how consistent it is. Besides, it can also be important for researchers in innovation and strategic management fields who can get insights into what happens with a platform startup in practice and elaborate on new conceptual tools or theoretical models.

As for the practical contribution of this study, platforms are used in every sector of the economy, so they are of great interest and importance for an enormous variety of companies who are intended to exploit their potential in one way or another. Hence, it is important for them to see how a startup introduce its platform business model to the market and modify it accordingly.

Future research

The discussion and conclusion parts lead the author of the study to suggest recommendations for future research. To begin with, it is important to use Business Model Canvas to compare business model innovation of platform startups that operate in different sectors of the economy to elaborate on BMI key patterns. Another future research opportunity lies in the need to investigate business model innovation during the transition period from a startup to an established firm. The analysis of the transition process can help to see how managers maintain the consistency of BMI to the point where they can execute an innovated business model design. Besides, it is important to use various mathematical models to assess BMI. Firstly, I would suggest using a formative index created by Spieth and Schneider (2015) to measure BMI of platform starts and thus see the scope of it. Secondly, it seems to be important to use model developed by Malmström, Johansson and Wincent (2015) to assess cognitive constructs that platform startup managers use to see whether they create a low-or high-profit business model.

References

Amit, R. and Zott, C. (2010). Business model innovation: Creating value in times of change. Working Paper of the IESE Business School, University of Navarra, WP - 870, July 2010.

Andries, P. and Debackere, K. (2013). Business model innovation: Propositions on the appropriateness of different learning approaches. Creativity and Innovation Management, 22(4), 337-358.

Baldwin, C. Y., and Woodard, C. (2009). 'The Architecture of Platforms: A Unified View'. Cheltenham, UK: Edward Elgar.

Bellman, R., Clark, C.E., Malcolm, D.G., Craft, C.J. and Ricciardi, F.M. (1957), "On the construction of a multi-stage, multi-person business game", Operations Research, Vol. 5 No. 4, pp. 469- 503.

Björkdahl, J., and Holmén, M. (2013) 'Business model innovation - the challenges ahead', International Journal of Product Development 18(3/4):213-225.

Bryman, A. and Bell, E., (2011), "Business research methods", Oxford: Oxford University Press.

Calia, R., Guerrini, F. and Moura, G. (2007) 'Innovation networks: From technological development to business model reconfiguration.' Technovation, vol. 27, no. 8, pp. 426-432.

Chesbrough, H. (2010) 'Business Model Innovation: Opportunities and Barriers.' Long Range Planning, vol. 43, no. 2-3, pp. 354-363.

Chesbrough, H. (2007) 'Business model innovation: it's not just about technology anymore.' Strategy and Leadership, vol. 35, no. 6, pp. 12-17.

Chesbrough, H. and Rosenbloom, R. (2002) "The role of the business model in capturing value from innovation: evidence from xerox corporation's technology, Industrial and Corporate Change 11(3), 529e555.

Chesbrough, H. W., and Schawartz, K., (2007) Innovating Business Models with Co-development Partnerships, Research Technology Management 50(1):55-59

Clinton, L. and Whisnant, R., (2014). 'Model Behavior: 20 Business Model Innovations for Sustainability', London.

Dahan., N., Doh., J., Oetzel. J and Yazji (2009), 'Corporate-NGO Collaboration: Co-creating New Business Models for Developing Markets', Long Range Planning 43(2-3).

Demil, B. and Lecocq, X. (2010). Business model evolution: in search of dynamic consistency. Long Range Planning, 43(2), 227-246.

Den Ouden, E. (2012). Innovation Design. Springer.

Drucker, P.F. (1988) The Coming of the New Organization. Harvard Business Review, 66, 45-53.

Eisenhardt, K. M. (1989), "Building theories from case study research", Academy of Management Review, 14(4), 532−550.

Eisenmann, T. R., Parker, G. G. and Van Alstyne, M. W. (2011).' Platform envelopment'. Strategic Management Journal, 32(12), 1270–1285.

Evans, S., and Yang, M., (2017). 'Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models'. Business Strategy and the Environment.

Filistrucchi, L and, Klein, T. J., (2013). 'Price competition in two-sided markets with heterogeneous consumers and network effects'.

Foss, N.J. and Saebi, T. (2017), "Fifteen years of research on business model innovation: how far have we come, and where should we go?", Journal of Management, Vol. 43 No. 1, pp. 200-227.

Gawer, A., (2014) Bridging differing perspectives on technological platforms: Toward an integrative framework, Research Policy, Volume 43, Issue 7, September 2014, Pages 1239-1249

Giesen, E., Riddleberger, E., Christner, R. and Bell, R. (2009). Seizing the advantage: When and how to innovate your business model. IBM Global Business Services Executive Report, IBM Institute for Business Value.

Goos, M., Van Cayseele, P., and Willekens, B., (2011). 'Platform pricing in matching markets. Review of Network Economics'. 12 (4), 437–457.

Hagiu, A. and Wright, J., 2019. The status of workers and platforms in the sharing economy. Journal of Economics & Management Strategy.

Hagiu, A. and Wright. J (2016), 'Multi-Sided Platforms' International Journal of Industrial Organization, Vol. 43, 2016.

Hagiu, A., and Wright, J., (2015). Multi-sided platforms. International Journal of Industrial Organization 43, 162–174.

Heij, C. V., Volberda, H. W. and Van Den Bosch, F. A. J. (2014). How does business model innovation influence firm performance: The moderating effect of environmental dynamism. Academy of Management Annual Meeting Proceedings, 1502-1507.

Holloway, S. S. and Sebastiao, H. J. (2010). The role of business model innovation in the emergence of markets: a missing dimension of entrepreneurial strategy? Journal of Strategic Innovation and Sustainability, 6(4), 80-95.

Hossain, M. (2017), 'Business model innovation: past research, current debates, and future directions', Journal of Strategy and Management, Vol. 10 No. 3, pp. 342-359.

Johnson, M. W. (2010). Seizing the white space. Business Model Innovation for growth and renewal. Harvard Business Press: Boston, Massachussetts.

Johnson, M. W., Christensen, C. C., and Kagermann, H. (2008). 'Reinventing your business model', Harvard Business Review, 86: 50–59.

Kamprath, M. and Van den Broek, A. (2015, January 14-16). 'From Business Models to Business Model Environment - Evaluating and Re-Desiging Business Models based on their Environment Compatibility'. Paper presented at the 5th Leuphana Conference on Entrepreneurship, Lüneburg, Germany.

Kind, H. J., Koethenbuerger, M., 2018. Taxation in digital media markets. Journal of Public Economic Theory 20 (1), 22–39.

KPMG International (2006), 'Rethinking the Business Model', KPMG International, January.

Lindgardt, Z., Reeves, M., Stalk, G. and Deimler, M.S. (2009), 'Business Model Innovation. When the Game Gets Tough, Change the Game', The Boston Consulting Group, December.

Loebbecke, C. and Picot, A. (2015), 'Reflections on societal and business model transformation arising from digitization and big data analytics: a research agenda', Journal of Strategic Information Systems, Vol. 24 No. 3, pp. 149-157.

Loock, M., (2012) 'Going beyond best technology and lowest price: on renewable energy investors' preference for service-driven business models', Energy Policy, Volume 40, January 2012, Pages 21-27.

Magnus, H. and Fallahi, S., (2013) 'Business model innovation and organizational inertia: costly signals, capabilities and users', Druid Academy.

Magretta, J. (2002), 'Why Business Models Matter', Harvard Business Review. May. pp. 3–8

Malmström, M., Jeaneth J., and, Joakim W., (2015) 'Cognitive Constructions of Low–Profit and High–Profit Business Models: A Repertory Grid Study of Serial Entrepreneurs'. Research Article.

Markides, C. (2006), 'Disruptive innovation: In need of better theory', Journal of Product Innovation Management, Journal of Business Models (2016), Vol. 4, No. 1, pp. 1-28, Vol. 23, No. 1, pp. 19–25.

Martins, L. L., Rindova, V. P., and Greenbaum, B. E. (2015). Unlocking the hidden value of concepts: a cognitive approach to business model innovation. Strategic Entrepreneurship Journal, 9(1), 99-117.

Massa, L. and Tucci, C.L. (2014), 'Business Model Innovation', in Dogdson, M., Gann, D., & Nelson, P. (Ed.), The Oxford Handbook of Innovation Management, Oxford University Press, Oxford, UK, pp. 420–441.

Meyer, M. H., and Lehnerd, A. P. (1997). 'The Power of Product Platforms'. New York: The Free Press.

Mitchell, D.W. and Coles, C. (2003), "The ultimate competitive advantage of continuing business model innovation", Journal of Business Strategy, Vol. 24 No. 5, pp. 15-21.

Mueller, C. (2014), "Business model change concepts – a literature review", The XXV ISPIM Conference – Innovation for Sustainable Economy and Society, Dublin, June 8-11.

Myers, M. D. (2009). Qualitative research in business & management. Thousand Oaks, CA, : Sage Publications Ltd.

Najmaei, A. (2012). 'Business Model: Strategic Logic of Disruptive Innovation.' In Strategic and Pragmatic e-Business: Implications for Future Business Practices, edited by K. M. Rezaul,, 100–31. Hershey, PA: IG

Najmaei, A. (2014). 'Business Model Value Creation, Value Capture, and Information Technologies." In Encyclopaedia of Information Science and Technology', edited by M. Khosrow-Pour, 549–57. Hershey, PA: IGI.

Niesten, E. and Jolink A., (2016), 'Sustainable collaboration: The impact of governance and institutions on sustainable performance', Journal of Cleaner Production.

Osterwalder, A. (2004), 'The Business Model Ontology: A Proposition in the Design Science Approach', unpublished dissertation, University of Lausanne.

Osterwalder, A. and Pigneur, Y., (2010), 'Business Model Generation: A Handbook for Visionaries', Game Changers, and Challengers T Clark (ed), Wiley.

Pateli, A., and Giaglis, G., (2004) 'A Research Framework for Analysing eBusiness models', European Journal of Information Systems 13(4):302-314

Porter, M. (1987), "From Competitive Advantage to Corporate Strategy", Harvard Business Review. May-June 1987, Pages 43-59.

PWC Digital Pulse (2018). 'The startup economy. How to support tech startups and accelerate innovation'.

Reinhold, S., Zach, F., and Krizaj, D. (2017) 'Business models in tourism: A review and research agenda', Tourism Review, 72 (4).

Remane, G., Hildebrandt, B. and Hanelt, A. (2016) 'Discovering new digital business model types: a study of technology startups from the mobility sector. Conference: Proceedings of 20th Pacific Asia Conference on Information Systems (PACIS 2016).

Ritter, T. and Lettl, C. (2018), 'The wider implications of business-model research', Long Range Planning, Vol. 51 No. 1, pp. 1-8.

Rochet, J.-C., and Tirole, J., (2003). Platform competition in two-sided markets. Journal of the european economic association 1 (4), 990–1029.

Rochet, J.-C., and Tirole, J., (2006). Two-sided markets: a progress report. The RAND journal of economics 37 (3), 645–667.

Rysman, M. (2009). The economics of two-sided markets. The Journal of Economic Perspectives, 23(3), 125–143.

Saebi, T. (2014), 'Business model evolution, adaption or innovation? A contingency framework of business model dynamics; environmental change and dynamic capability', in Foss, N.J. and Saebi, T. (Eds), Business Model Innovation: The Organizational Dimension, Oxford University Press, Department of Strategy and Management, Oxford and Bergen, pp. 1-39

Schaltegger S., Hansen, E., and Lüdeke-Freund., F, (2016) 'Business Models for Sustainability: Origins, Present Research, and Future Avenues'. Organization & Environment 29(1):3-10.

Schweizer, L. (2005), 'Concept and Evolution of Business Models', Journal of General Management.

Souto, J.E. (2015), 'Business model innovation and business concept innovation as the context of incremental innovation and radical innovation', Tourism Management, Vol. 51, December, pp. 142-155.

Spieth, P., and Schneider, S., (2015) 'Business model innovativeness: Designing a formative measure for business model innovation'. Journal of Business Economics 86(6).

SunEagle, T., (2010), Digital Models of Music: A Case Analysis of the Music Industry's Response to Technological Changes.

Svahn, F., Mathiassen, L., Lindgren, R. and Kane, G.C. (2017), 'Mastering the digital innovation challenge', MIT Sloan Management Review, Vol. 58 No. 3, pp. 14-1.

Teece, D. J. (2010). 'Business Models, Business Strategy and Innovation'. Long Range Planning 43 (2–3):172–94.

Teece, D. J. (2010). 'Business models, business strategy and innovation', Long Range Planning, 43: 172–194.

Teece,D.J.(2007), 'Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance'. Strategic Management Journal 28 (13):1319–50.

Thuesen, Ch., and Hvam, L. (2013) Rethinking the Business Model in Construction by the Use of Off-Site System Deliverance: Case of the Shaft Project Journal of Architectural Engineering 19(4):279-287.

Tiwana, A., Konsynski, B., and Bush, A. A. (2010).' Research Commentary —Platform Evolution: Coevolution of Platform Architecture, Governance, and Environmental Dynamics. Information Systems Research', 21(4), 675–687.

Tremblay, M. J., 2016. Foreclosure, entry, and competition in platform markets with cloud storage.

Trochim, W., and Donnelly, P., (2008), 'The Research Methods Knowledge Base, 3rd Edition'.

Voelpel, S.C., (2003), 'The mobile company. An advanced organizational model for accelerating knowledge, innovation and value creation'.

Wells, P. (2017). 'Business models for sustainability'. Cheltenham, UK: Edward Elgar.

West, J., and Bogers, M. (2014). 'Leveraging External Sources of Innovation: A Review of Research on Open Innovation'. Journal of Product Innovation Management, 31(4), 814–831.

Wirtz, B., Pistoia, A., Ullrich., S and Göttel V., (2015) 'Business Models: Origin, Development and Future Research Perspectives'. Long Range Planning 46(1).

Wirtz, B.W, Heij, J. and (2015), 'Business Model Management. Design – Instruments – Success Factors', Gabler Verlag, Wiesbaden.

Yin, R. K. (1994). 'Case study research: Design and methods'. London: Sage

Yin, R. K. (2003). Case study research: Design and methods. Thousand Oaks, Calif: Sage Publications.

Yin, R. K. 2013. 'Case Study Research: Design and Methods', Thousands Oaks, CA: Sage publications.

Appendix 1

Case Study Protocol

Section	Contents
Preamble	The purpose of the protocol is to outline procedures and rules that shape a research project and the conduct of the researcher
General	1. Research method ase study method 2. Research design Single case study with one unit of analysis 3. Case-study methodology I. design case study II. prepare for data collection III. collect case study evidence IV. analyse case study evidence V. report case study
Procedures	1. Selection of cases: Criterion and typical-case sampling strategies 2. Number of cases 1 3. Establishing contact E-mail with a participation request letter
Research instrument(s)	1. Qualitative semi-structured interviews with platform start-up managers - Phone interviews with 1 CEO, 2 managers and 1 CFO 2. Documentation and other sources of secondary data such as articles and websites 3. Convergence of evidence
Data analysis guidelines	1. Five-phased data analysis process: I. creation of a database II. data disassembling III. data reassembling

	IV. data interpretation V. conclusions 2. Triangulation of primary and secondary data
Appendix	1. Participation letter request 2. Interview protocol

Appendix 2

Request for participation in the interview

Invitation letter – Qualitative case study

Date

Dear Participant,

My name is Evgeniya Belolipetskaya and I am doing my masters' degree at National College of Ireland, in the School of Business. I am currently working on my qualitative research on Business Model Innovation of platform start-ups.

I would like to conduct a phone/skype interview with you to discuss some aspects of your start-up activity on the market. The interview will last approximately 15 to 20 minutes. Your participation in this study is voluntary, and you may retain the right to stay anonymous.

If you have any questions about the research please contact me by e-mail x18142001@student.ncirl.ie.

Best regards,

Evgeniya Belolipetskaya

Appendix 3

Interview protocol

I. A script of what I am going to say before the interview

Hi, my name is Evgeniya Belolipetskaya. I am pursuing my masters' degree at National College of Ireland and, to complete the degree, I need to undertake research that would cover a topic relevant to the course of my study. I am going to ask you questions related to the business activity of your start-up company.

II. Introductory questions

What position do you hold at a start-up?

Have you been working at a start-up since it was launched? (If not, when did you join it?

Where is your start-up now in terms of its development?

III. Business Model Canvas

Business model	Do you use any conceptual tools to plan and sketch the overall business direction? Could you describe how your start-up is making money?
Customers	Could you describe your target audience?
Value proposition	Can you think of why customers have an interest in your services?
Customer relationship	Can you think of any decisions that help your company to keep customers interested in your services?
Channels	How do you manage to reach your target

	customers?
Key activities	What are the main processes that your company adopt to make your service viable on the market?
Key partners	Who are your key partners?
Key resources	Tell me about what resources are indispensable for your start-up?
Cost structure	What are the main costs incurred in business?
Revenue model	What is the main source of profit?

IV. Research questions

Research quiestions	**Pertinent Interview Questions**
1. How do managers of a platform start-up innovate their initial business model elements, while testing	1. Can you walk me through the problems your start-up company faced when you entered the market (if any)? 2. Can you single out any missing points of your initial perspective on how you make money on your platform (if any)? 3. Could you evaluate to what extent the initial plan on

their value proposition(s) in the market? 2. How do changes of the initial business model design form business model innovation?	how to make money differs from what you are doing? 4. What are the major changes you had to / are going to introduce to fix these problems and better adapt to the market (if any)? 5. How are you improving your initial plan on doing business (if it does not fully reflect the real state of affairs)? 6. What, in your opinion, allows you to introduce these questions?
Before we finish this interview, is there something you would like to add?	

V. A script of what I am going to say at the conclusion of the interview

I would like to thank you once again for having agreed to take part in the interview aspect of my study.