

Business Model Design- Multiple case study of Nepalese IT start-ups

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Abstract

The business model design has not been highly researched in the Nepalese start-ups. As start-ups face the threat of failure due to a lack of suitable business model, this research is intended to examine the business model design and innovation process in IT start-ups within Kathmandu valley of Nepal. The finding shows that most of the start-ups are partially aware about business model design. Start-ups are yet to focus on all the 9 elements of the business model. The finding further supports that business model of start-ups have evolved in a way like trial and error, structured effort using renowned methods and copying of other's business model. All the four start-ups taken in this study have mainly focused on value proposition and given it the highest priority; also, 3 out of 4 start-ups have given second priority to customer segment of business model canvas. While financial aspects are regarded as the least important aspects of business model. The study revealed that the changes occur 3-4 times within the first year of business model innovation process with iterative process is characterized by a stronger changes in the beginning, including 20 building blocks per change and a slight declination in the following changes. During the first year of business model innovation process customer feedback plays a vital role to change the customer segments. Similarities between the start-ups, the frequency of business model changed and finally antecedents that cause the change in business model were observed during the first year of business model design and innovation process. This study advances the research of business model design for start-ups by adding new findings to existing literature. Moreover it creates framework for further studying and made recommendation on how the process can be improved by pointing out important task in the process of business model design and its innovation.

Keywords

start-ups, innovation, business model design

1. Introduction

Starting and running a company is a complicated and challenging task. During the early years of an organization, the entrepreneur has to make many decisions that will influence both the business and product. Moreover, the decision making has often to be done within the constraints of money and time. Studying business model design in entrepreneurship could facilitate these decisions.

Start-ups are seen as innovative and flexible in the accomplishment of their operations but still nine out of ten start-ups fail, with eight within the first 18 months (Roth, 2016; Griffith, 2014; Wagner, 2013). According to the diagram of CB insights, that summaries an analysis of 101 start-ups about the reasons of venture failure, the need or lack of a

business model, being on the 7th position in the ranking, is one of the top ten reasons why start-ups fail (Griffith, 2014). In addition to these difficulties, IT companies are confronted with rapidly moving markets, emerging new technologies and changing customer demands, causing the need for those companies to become more flexible and adaptive towards change (Sur, 2016; Trimi & Berbegal-Mirabent, 2012; Demil & Lecocq, 2010; Mitchell & Coles, 2003).

Over the past decade researcher and practitioners have come together around the business model concept. Business model research is at confluence of strategy and entrepreneurship research (Demil et al., 2015). From an entrepreneurial perspective, the entrepreneur is the one recombining already existing elements into novel forms (Schumpeter, 1934). While as a strategic

concept, business models help expose how practitioners can tap into new markets and opportunities by innovating on this system-level construct (Amit and Zott, 2001). Together in theory, entrepreneurs take already existing ideas and concepts and reapply them into niche or innovative business models. This then allows entrepreneurs to create and hopefully capture value from serving new markets or opportunities. Despite the importance of the topic, combining business models and entrepreneurship have been a topic clearly absent in business research. While the business model concept is highly prioritized by the entrepreneurial community, it has yet to be acknowledged by the scholars to the extent it ought to be. While studies have concluded that the characteristics of new ventures differ from incumbent organizations in several ways, the implications for the business model design process have largely been ignored.

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2. Literature Review

2.1 Business Models

In the literature as well as in corporate practice the term business model is not clearly defined (Trimi & Berbegal-Mirabent, 2012). Due to its misuse of the related term business strategy, there is the need

to distinguish business strategy from business model before narrowing down business model in detail (Chesbrough & Rosenbloom, 2002). Moreover, the business model is considered as an instrument to exploit opportunities, therefore conceded as opportunity-centric (George & Bock, 2011; Amit & Zott, 2001).

In addition to this, viewing the business model as a system that connects activities and explains how firms do business, is receiving increasing support from the literature and scholars (Zott, Amit & Massa, 2011; Zott & Amit, 2010). Sorescu et al. (2011) further characterise the system as it contains “interdependent structures, activities, and processes that serves as a firm’s organizing logic for value creation (for its customers) and value appropriation (for itself and its partners)”. In other words, the system perspective enables to project a view of a company as a whole and thereby, values the connection between processes and activities (Ackhoff, 1994). This connection is important to create the mentioned fit between the value proposition and the customer demand to gain a sustainable competitive advantage (Teece, 2010; Demil & Lecocq, 2010; Chesbrough, 2007). Therefore, the question arises how companies are making use of the business model.

In practice, the business model is used to analyze companies in order to get a deeper insight in the firm’s activities (McGrath, 2010). The core task of the business model is to commercialize the innovation in a way that the company can capture the highest possible value from it (Zott, Amit & Massa, 2011; George & Bock, 2011; Teece, 2010; Chesbrough, 2010; Chesbrough, 2007; Chesbrough & Rosenbloom, 2002). This commercialization of the innovations value is important for companies as research has proven in recent years that it is not about technology anymore through which companies can create a competitive advantage, but a business model that ensures the fit mentioned (Teece, 2010; Chesbrough, 2007; Morris, Schindehutte & Allen, 2005; Chesbrough & Rosenbloom, 2002).

In recent years, there has been considerable interest of business models in entrepreneurship, for instance, George and Bock (2011, p.102) describe the business model as a significant part of the “entrepreneurial enactment process”. However, start-up founders are often considered as “specialists in the technical area of the innovation”, but lack in the design of a business model (García-Gutiérrez & Martínez-Borreguero,

2016). In this context, many frameworks for designing a business model exist. The most famous one is the Business Model Canvas from Osterwalder and Pigneur (Spieth, Schneckenberg & Ricart, 2014). These frameworks provide insights about the business model design itself. The elements of the business model and the business model itself are seen as a major source for companies to be innovative and continuously improve performance (Trimi & Berbegal-Mirabent, 2012). Depending on the composition of these elements, Amit and Zott (2011) classify four different business model design themes according to their degree of customer lock-in, novelty, experimental and efficiency.

However, the static view scrutinizes business model as a scheme that fulfills significant functions such as enabling description and classification as well as determining choices that offer the potential for superior performance (Demil & Lecocq, 2010). In contrast to this, the dynamic view aims to understand the behavior in which a business model develops over time (Demil & Lecocq, 2010). To achieve a sustainable competitive advantage and increasing performance, it is the companies' responsibility to strive for business model innovation (Trimi & Berbegal-Mirabent, 2012; Teece, 2010; Chesbrough & Rosenbloom, 2002). The static view of the business model as such is complemented by the dynamic view of business model innovation, to enable companies to ensure these improvements of the business model, long-term success and a sustainable advantage in the marketplace (Sorescu et al., 2011; Demil & Lecocq, 2010). The dynamic view gains support of Teece (2010) who drew our attention on the need for further development of the business model as it can be imitated by competitor's overtime.

2.2 The Literature Gap and Relevance of Research

As mentioned above, current research on business model design and the development process only considers the steps taken to get from one business model to a new one or what stages a company goes through. Another gap is that most literature is conducted on established company and not on start-ups; however, as many studies acknowledge business model innovation as an entrepreneurial act, start-ups can be considered as most suitable for conducting research on the process of business model innovation (Foss & Saebi, 2017; George & Bock,

2011; Zott & Amit, 2010).

Hence, we aim to fill this gap by conducting research on the process of business model design in start-ups regarding its characteristic in terms of when, what and why changes occur. Therefore, our research study includes the description and process of business model design in start-ups and the discovery of the patterns in it, by examining most prior elements of business model, reason behind changing the business model, how many building blocks in the business model change per event, what parts of the business model changed and what caused these changes.

3. Methodology

3.1 Theoretical Framework of research

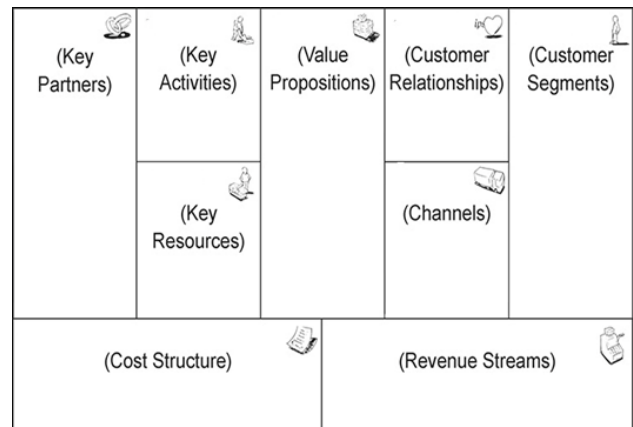


Figure 1: Business model canvas by Osterwalder

The business model canvas has been created by Osterwalder and Pigneur (2010). And since then this model has been experienced high acceptance in the research area for business model. Most of the entrepreneurs, managers and scholars have been using this model as business model tool. The creators itself define the canvas as “a tool for describing, analyzing and designing business models” and instrument that guarantees a “shared language” during business model innovation. It is “simple and easy to use” and can be used as an instrument to improve “Transparency, creativity and innovation” as it enables iterative enhancement (Martinez-Borreguero, 2016). The canvas has four pillar named as Product/offer, Customer Interface, Infrastructure Management and Financial Aspects (Osterwalder&Pigneur, 2010).

3.2 Research Approach and Design

This study is meant to be an exploratory attempt at discovering the process involved in designing and developing a business model. A qualitative research design is a deliberate choice for a multitude of reasons. Qualitative method is well intended when researcher aim for “how certain phenomena have come to happen. And when the research questions asked seek to uncover what is happening and how it has come to happen, a qualitative research design is most appropriate (Myers, 2013).

For conducting our research about business model design and innovation process in Nepalese IT start-ups, qualitative research approach based on a case study research design has been applied (Gioia, Corley & Hamilton, 2013; Eisenhardt, 1989). As our research question concerns how we apply relatively new concepts of business models and business model designs to new ventures within a specific industry, IT and a specific location Kathmandu, this research targets to shed some light on relatively new phenomena of Business Model Design and their Innovation Process within the IT starts up. As it is suggested by Eisenhardt (1989) to use a sample number between four and ten, we chose a sample of four start-ups.

3.3 Research Process

There are two separate research strategies to commit business research, namely, quantitative research and qualitative research (Bryman & Bell, 2011). The qualitative research method aims to answer research questions such as “how” and “why”, while quantitative research methods targets questions such as “what” to a higher extent (Saunders et. al, 2015). While qualitative research methods focuses on analyzing information gathered from in depth interviews, discussions or likewise, quantitative research emphasizes numerical data to answer the research questions (Bryman & Bell, 2011). While both quantitative and qualitative research has its advantages as well as disadvantages, the quantitative research approach was chosen as it was deemed most appropriate to answer the exploratory research question.



Figure 2: Qualitative research Process

This research uses the qualitative method to understand the attitude of the study group towards business model design. Moreover, as the qualitative research method is used to identify opinions, beliefs and behaviors concerning a specific topic, it should be considered appropriate to answer previously mentioned research question. Bryman & Bell (2011) propose the normal way of conducting qualitative research as a six-step process.

4. Results and Discussion

The following section presents case empiric s in order for the reader to understand what information can be derived from the interviews. Furthermore, following abbreviations of the building blocks have been used ‘customer segment’ (CS), ‘value proposition’ (VP), ‘channels’, ‘customer relationship’ (CR), ‘key resources’ (KR), ‘key activities’ (KA), ‘key partnerships’ (KP), ‘cost structure’ (CoSt) and revenue streams (RS). Also the term building block will sometimes be replaced by ‘BB’.

4.1 Finding: Cross-Case Analysis

4.1.1 Business Model Design

The Start-ups taken in this research qualifies, by the definitions of Eismann (2013), as are bringing innovative products to their markets. Moreover, Eismann (2013) argues that entrepreneurial firms are facing resource constraints. The empirical findings show that all companies have faced resource constraints in different ways during its life span. Besides, all companies in this study has either received, or thought of receiving financial support from venture capitalists, indicating that the financial constraint heavily affects the companies. The empirical findings show, in line with the research of Churchill & Lewis (1983), that the entrepreneurial companies are all in the same growth stage – success-growth. This stage involves profitability, recruiting and developing employees. All of the companies interviewed discussed recruiting the right personnel as a key activity, further supporting the theory. The following analysis of four pillar of the business model will compare and analysis the empirical findings with support from the theoretical framework.

Value Proposition

The empirical finding shows that 4 out of 4 start-ups have given the first priority the value proposition. This shows that all the start-ups are focused on the customer problems and in search of solving them in efficient way. All the start-ups interviewed states that they are constantly working to improve the value proposition, to various degree. Also when asked to prioritize the value proposition in regard to the other business model component all the start-ups have given the first and most importance to the Value proposition.

Customer Interface

As the customer interface revolves around Customer relationship management, it includes three sub components customer segments, channels and relationships. All the start-ups taken are very well aware of its target customers. Most of the manager believes and are working actively to extend its offering to its target customer. Out of 4 start-ups, 3 start-ups have given priority to customer segments. From empirical findings this clearly shows that majority of the start-ups are giving priority target customer higher after value proposition. Most of the start-ups are communicating through social media, mobile application and telephone channel. In this regard, channel has not been in the list of priority of of most start-ups. However Medikoma and third eye tech have given customer relationship a medium priority, while other two companies has given less. Having a good relationship with customer helps start-ups to grow rapidly is what start-ups believe.

Infrastructure Management

All start-ups covered in this research are IT related start-ups. Therefore, tangible assets, as highlighted by Osterwalder(2004) decrease in importance. However Key activities and key resources as manpower plays importance role in producing IT product and services. While studying start-ups business model, start-ups are aware of the key resources and key activities but key partners are less important in their business model. The business model studied in this research shows that extending the partner also helps to increase customer as well. So all start-ups are ready for partnership but they have given less important to this component of business model. Also during initial phase of business model, all the start-ups face difficulties to have right resources at right time.

Financial Aspects

All the start-ups have their own type of cost structure and revenue model. The start-ups taken here are IT based, so main focus is on an idea to implement rather than focusing on financial aspects. Also empirical findings shows that most of the start-ups studied are not focusing on financial aspects. In the interview, all the manager and CEO’s are aware of the financial aspects but their priority is not on this. All they want is to launch the product, have some response from customer and then they will think about revenue model, such as pricing strategy and finding more potential cash flows. Trial and error have been used to develop the idea into product and service. So design of coost structure have been avoided in the initial phase of start-ups. However the company with better planning and management have somehow given priority to financial aspects of business model

The finding shows that the following prioritization of business model component has been observed as shown in table 1.

Also the table 2 shows the comparison between four start-ups. During first year, business model design have have been changed three to four times and relative antecedents are also mentioned.

Table 1: Priority given by different start-ups

Pillar	Subcomponent	Medikoma Priority	ThirdEye Tech Priority	Paaila Technology Priority	CellApp Priority
Product	Value Propositions	1	1	1	1
Customer Interface	Customer Segments	2	2	5	2
	Channels	6	9	9	7
	Customer Relationships	4	4	8	5
Infrastructure Management	Key Partners	7	6	7	6
	Key Activities	3	3	3	3
	Key resources	5	5	4	4
Financial Aspects	Cost structure	8	7	6	8
	Revenue Stream	9	8	2	9

5. Conclusion

The goal of this research is to observe the process followed by start-up entrepreneurs as they designed and innovate their business model. By using a renowned framework, based on the research of Osterwalder (2004), and applying it to new start-ups, it has addressed how the IT start-ups design their business model and what are the focus area of

Table 2: Summary of interview with Nepalese IT start-ups

Start-ups	MediKoma	Third Eye Tech	Paaila Technology	CellApp innovation
1 st change period	3 month	2 month	4 month	6 month
Antecedents	Customer feedback, Need of Knowledge	Need of knowledge, problem Identification	Problem identification, use of innovative leadership	Problem Identification, Growth in Business, Need of knowledge
Major BB changed	CS,VP,KR	CS,VP,KR,CH	VP,KR,KA,CS	VP,CS,Ch
2 nd change period	7 month	5 month	6 month	10 month
Antecedents	Customer feedback, use of innovative leadership, growth in business	Use of innovative leadership, New marketing strategy, New selling strategy	New marketing strategy, Revenue structure, Growth in business	Need of knowledge, Use of innovative leadership
Major BB changed	KP, KR	CS,KR,KP,KA	VP,CS,KR,Ch	KR
3 rd change period	11 month	9 month	9 month	12 month
Antecedents	Marketing strategy, customer feedback	Customer feedback, Growth in business	No Customer	Customer feedback
Major BB changed	CS,KP,KR	KP,KR,CS	CS,Ch	CS, VP,KP
4 th change period		11 month	12 month	
Antecedents		Addition of key partner	Funding requirement, customer feedback	
Major BB changed		KP,Ch	CS,KR,KP,RS	

business model when IT start-ups engage while designing the business model.

The research put together in this research found that the business model of start-ups have evolved in different ways like Trial and error, a result of a structured effort using renowned methods and follow others business model. All the start-ups studied in this research have given first priority to Value proposition of business model. Also, three out of four start-ups have given second priority to customer segment. That means out of 9 element of business model, Value proposition together with customer segments are regarded as the most important aspects. Key resources and Key activities are the average and equally important aspects of the business model, while financial aspects is regarded as the least important aspects of business model during the 1st year of business model design and innovation process of IT start-ups. Further, similarities between the start-ups, the frequency of business model changes, effects of changing one building block to others and finally what cause the change in business model is observed. The process of business model design and innovation have

been studied and can make recommendation how the process can be improved by pointing out what task are important in the process of business model design in IT start-ups.

Future Enhancements

As business model design concepts is new in Nepalese markets. Most of the successful companies are following the business model while start-ups are partially aware of it. So during the research period opportunities for future research are identified. As this study only covers IT industry, start-ups from other areas of industry can be taken. Also this research only observe the first year of business model design, we can further study about the following years and their success/failure rate. The reasons behind the business model change are different. Other areas of research could be identifying the exact reason that affects the specific business model component directly. Generally start-ups have many direction to go through and business model design lead them to their direction. There might be structured or unstructured

process of designing the business model. So taking larger sample size, the research on which business model design process is more profitable could be another research topic for future.

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