

Designing new business models: blue sky thinking and testing

Experimenting and Prototyping

INTRODUCTION

Globalization has created a business landscape where firms are experiencing a significantly higher rate of change. In these uncertain, complex and fast-moving environments, strategies are as much about insight, rapid experimentation and evolutionary learning as they are about the traditional skills of planning. This new business environment has also amplified the need to consider not only how to address customer needs more astutely, but also how to capture value from providing new products and services. In traditional equilibrium oriented views of the strategy process, there is an assumption that there will be relatively little change in the constraints management operate within. However, the findings of this research suggest that approaching business models through a dynamic, design-driven lens can create new perspectives, by looking beyond known assumptions, barriers and constraints. Key to this is the practice of business model experimentation.

Therefore, this paper builds upon emerging research and explores the importance and relevance of dynamic, design-driven approaches to the creation of innovative business models. The Business Model Canvas (Osterwalder and Pigneur 2010) was selected as the categorization matrix. Forty companies spanning a diverse range of criteria were chosen to evaluate and compare the design of their business models. Five business models were derived from this content analysis, from which quick prototypes of new business models can be created. The presented findings of the five models, aim to synthesize knowledge gained from real world case studies into a tangible, accessible and provoking framework that provides a new logic to classifying forms of business model innovation.

BUSINESS INNOVATION

Industry leaders now look to business model innovation as a principle source of differentiation and competitive advantage (Brown 2008). The discipline of innovation has emerged within businesses due to companies needing new discoveries and strategies to drive growth and survival. Morris (Morris 2009:194) states, “Any enterprise that intends to survive must somehow innovate, because innovation itself is the only defense against innovation”. The ability to innovate requires a company to evolve, adapt, be flexible and constantly improving in order to survive and thrive (Keeley et al. 2013). Companies often rely heavily on either technology or products to provide differentiation, however, these are easily copied and rapidly surpassed (Morris 2009). Keeley, Pikkell, Quinn and Walters (2013) explain companies that focus only on products are most likely to fail, as successful innovation requires many types of innovation. Their research aims to make innovation into a systematic approach, in which successful innovators analyze the patterns of innovation in their industry and then make conscious, considered choices to innovate in different way (Keeley et al. 2013).

BUSINESS MODELS

Business strategy is largely defined within a company’s business model. However, there are varying definitions of what a business model is, and these interpretations vary depending on their context and scope. At a conceptual level, a business model includes all aspects of a company’s approach to developing a profitable offering and delivering it to its target customers (Sinfield et al. 2012). Osterwalder and Pigneur (2010) designed the *Business Model Canvas* (Fig.1) which

illustrates a business model visually. Compiled of nine building blocks (Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partners and Cost Structure), the canvas is a tool used to unpack a company's business model. Unpacking a company's business model provides more than insight into metrics and management levers. It can help illuminate an important, underutilized form of innovation that goes beyond product or process innovation.

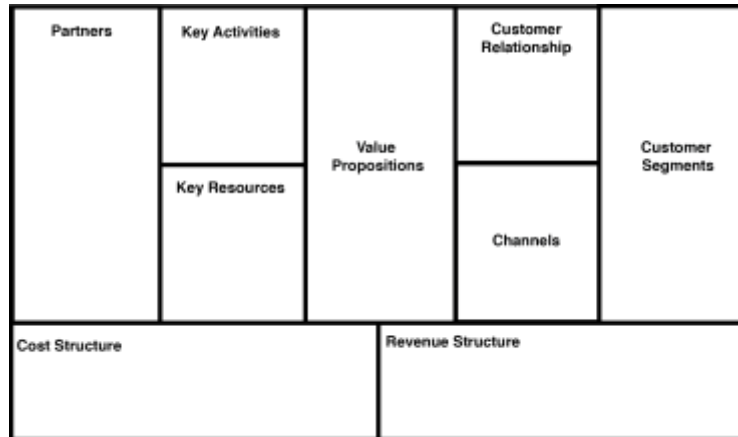


Figure. 1. Business Model Canvas (Osterwalder and Pigneur 2010)

BUSINESS MODEL INNOVATION

Several studies show that business model changes are among the most sustainable forms of innovation. While great business models often appear to have gone straight from drawing board into implementation leading the firm to glory and success, in reality new business models rarely work the first time around, since decision makers face difficulties at both exploratory and implementation stages (Sosna, Trevinyo-Rodríguez, and Velamuri 2010). Companies may have extensive investments and processes for exploring new ideas and technologies, they often have little if any ability to innovate the business model through which these inputs will pass (Chesbrough 2010). Business model innovation can itself be a pathway to competitive advantage if the model is sufficiently differentiated and hard to replicate for incumbents and new entrants alike (Teece 2010). Research conducted in the last 10 years has established a link between business model innovation and value creation. This research points to the need for organizations to build a competency in business model innovation (Sinfield et al. 2012). History proves that successful innovations often stem from excellent business models as much as they do excellent technologies (Shelton and Davila. 2005). Whilst substantial research considers the necessity and importance of business model innovation, there has been little exploration into understanding the key drivers behind business model innovation success, and synthesizing these into an accessible, tangible framework.

BUSINESS MODEL PROTOTYPING AND EXPERIMENTATION

Business model experimentation and prototyping 'Experimentation' represents a scientific method and is widely used in empirical science in order to test existing theories or new hypotheses in order to support or disprove it. The term 'experimentation' in the business model realm, has leant itself to the scientific notion of setting up experiments and controlling and manipulating of certain variables of the business model to test a hypothesized outcome via empirical observations of data (e.g. such as usage data, market share, etc.). Existing literature on business model innovation also coins the term 'prototyping' to emphasize the importance of the iterative learning and problem solving processes related to 'experimentation' when testing different solutions, and adapting them based on the results of an experiment. Despite this claim the idea of business model prototyping

allows for assumptions to be made, which is why the business model prototype serves a dual purpose. First, the prototype helps explore various scenarios and stress test the viability (and profitability) of the venture so designed. As importantly, however, it forces the methodically calling out all assumptions. Davenport (2009) claims that too many business innovations are launched on a whim. The real payoff will happen when the organization as a whole shifts to a test-and-learn mind-set (Davenport 2009). This test and learn mindset, is broadly defined as the company transforming to becoming design led, and requires a significant shift in the organizational cultural, leadership capability and internal process to enable such a mind set to be diffused within the organisation. In controlling and manipulating certain variables to test a hypothesized outcome the idea of ‘experimentation’ in a business model is reached. Brunswicker, Wrigley and Bucolo (2012) propose that the concept of ‘prototyping’ refers to the unlocking a mindset representing many future possibilities not just those you plan to implement. It allows for more than one concept to be held abstractly at once while bringing the concepts into the concrete as they are needed, becoming more of a learning and exploration process. When prototyping, the iterative learning and exploration of new business model options rather than the testing of pre-defined set of hypotheses is in focus (Brunswicker et al. 2012).

DESIGN AND PROTOTYPING

The significance and benefits of early prototyping have been long recognized in the field of product design. Design can be used to describe a holistic and multi-disciplinary problem-solving approach that takes user needs, desires, and capabilities as its starting point and focus. Design is not a linear process (Brown 2009). It is seen in the innovation field as the human-centered, prototype-driven approach, using designer’s processes and frameworks to solve problems (Brown 2009). Indeed, the value of design is a different way of thinking, doing things and tackling problems from outside the box. When prototyping business models, one may also categorize different prototypes. However, there is a lack of knowledge about appropriate prototypes dimensions and categories to prototype the business model, as opposed to products and service.

RESEARCH METHOD

The research followed a content analysis approach using the Business Model Canvas (Osterwalder and Pigneur 2010) as the categorization matrix. This selection was made on the basis of two factors. First, the nine business model building blocks featured in the canvas provide a holistic view of an organisation’s individual components and strategy, comprising of elements found in most other business model frameworks. Second, the canvas has been widely recognized by both scholars and practitioners, and was established based on a systematic ontological analysis of existing business model conceptualizations and empirically validated by experts (Boillat & Legner, 2013; Osterwalder, 2004). The appropriateness of content analysis for the methodology offered a systematic and objective approach to evaluate content for a large sample of data.

The purpose of this study is to explore and investigate business model design through various product and/or service deliveries in the context of their existing business cases. The aim being to identify and categories common key drivers behind each firms business model innovation. Forty international companies were selected to represent a spread of companies based on the industry, sector, size, age, and location. Companies were chosen to represent a cross section of popular and dominant industries and sectors. Whilst diverse ranges of businesses were researched, there was a preference towards businesses that differed from traditional business models. All data came from publicly available third party digital resources (Details for each company and the main data sources used for each are outlined in Table 1).

ANALYSIS

The first step in analyzing these findings was to isolate the main types of business model innovation exhibited in the forty cases. This was done by evaluating each area of the business model canvas and establishing which segment was the most logical primary driver behind each company's business model transformation.

The impact these primary business model drivers had on the rest of the company's strategy was dissected and represented as a progression through the business model canvas. This was done for each business model, with emphasis placed on how the primary driver impacted other facets of the business model makeup. The goal here was to identify the most logical concomitant activity of the primary business model driver. By coding these main areas it was possible to draw out similarities and patterns in the data collected. These variables were then grouped into common themes and patterns.

RESULTS: FIVE DESIGN TYPOLOGIES

Five business models were derived from this analysis: Customer Led, Cost Driven, Resource Led, Partnership Led and Price Led. Throughout the process of unpacking these companies' business models, it was clear there were patterns and commonalities that were emerging into clear categories. The first finding was the classification of each business model typologies and the identification of a sequence, which explained how each typology, would likely have been executed relative to the business model canvas. These typologies have been mapped back onto the business model canvas, to create aligning models for each typology. A chronological order was derived which outlined the logical sequence of activity within each model. Not only is this order relevant in understanding each model, it also provides a framework from which new prototypes can be designed. Each of the five typology models are explained below (Figures 2-6), along with examples from the analysis, provoking questions with non-specific possibilities are also illustrated in order to propose various possible starting points.

Table 1. Company Overview

Industry	Company (Name)	Size (Employees)	Founded (Year)	Location (Headquarters)	Typology	Data Source		
						i) Website & Social Media	ii) Online Trade Publications	iii) Annual Reports
Agriculture								
	Australian Fresh Leaf	>50	2008	Australia	Partnership Led	×	×	×
	Simpson Farms	51-200	1969	Australia	Partnership Led		×	×
Food and Hospitality								
	Nespresso	5001-10,000	1986	Switzerland	Customer Led	×	×	×
	Sumo Salad	5001-10,000	2003	Australia	Price Led		×	×
	Xpresso Delight	51-200	2004	Australia	Customer Led		×	×
Freight and Travel								
	Inxpress	501-1000	1999	UK	Cost Driven		×	×
	Southwest Airlines	10,000+	1971	USA	Price Led	×	×	×
	JetStar	5001-10,000	2004	Australia	Price Led	×	×	×
Healthcare								
	Revive Clinics	51-200	2009	Australia	Cost Driven		×	×
	Argus Connect	>50	2004	Australia	Partnership Led		×	×
Internet								
	Webjet.com.au	51-200	1998	Australia	Price Led	×	×	×
	Quirky Inc.	201-500	2009	USA	Partnership Led	×	×	
	99Designs	51-200	2008	USA	Cost Driven	×	×	
	KickStarter	51-200	2009	USA	Customer Led	×	×	×
	Zappos.com	1,000-5,000	1992	USA	Cost Driven	×	×	×
	Sketchchair	>50	2011	UK	Cost Driven	×		
Manufacturing and Consumer Products								
	Lego	<10,000	1932	Denmark	Customer Led	×	×	×
	JRobins Footwear	51-200	1911	Australia	Resource Led	×		

	Kimberley Trailers	51-200	1994	Australia	Resource Led	×		
	Hilti	<10,000	1941	Liechtenstein	Customer Led	×	×	×
	Kitchener Kitchens	>50	2003	Australia	Partnership Led	×	×	×
	Procter & Gamble	10,000+	1837	USA	Partnership Led		×	×
	Black & Decker	10,000+	1910	USA	Partnership Led	×	×	×
	Tata Motors	10,000+	1945	India	Customer Led		×	×
	Nintendo	1,000-5,000	1889	Japan	Customer Led	×	×	×
	Sony	10,000+	1946	Japan	Resource Led	×	×	×
Mining	Orica	10,000+	1874	Australia	Resource Led		×	×
Professional Services and Banking	Rabo Direct	51-200	2007	Australia	Price Led	×	×	×
	Bespoke Law	>50	2009	Australia	Cost Driven		×	×
	BankWest	5,000-10,000	1895	Australia	Customer Led	×	×	×
	Commonwealth Bank	10,000+	1911	Australia	Resource Led	×	×	×
Retail	Beacon Lighting	201-500	1969	Australia	Price Led	×	×	×
	B&R Automation	1,001-5,000	1979	Austria	Resource Led		×	×
	Anytime Fitness	51-200	2001	USA	Cost Driven		×	
	Space Furniture	51-200	1993	Australia	Partnership Led		×	×
	Ikea	10,000+	1943	Sweden	Customer Led	×	×	
	WholeFoods Market	10,000+	1998	USA	Customer Led	×	×	×
	Zara	10,000+	1975	Spain	Resource Led	×	×	×
	Chemists Warehouse	5,001-10,000	1973	Australia	Price Led		×	×
	Terry White Chemist	1,000-5,000	1994	Australia	Partnership Led		×	×

Customer Led

Many innovative business models are designed to be customer centric, rather than product centric. A Customer Led strategy (Figure 3) explores the diverse possibilities that lie within new and untouched customer segments, and how a new business model would look based on this new customer group. By experimenting with new customer segments, the designer is able to break away from the current norm in search of more lucrative and untapped customer demographics. The first starting point is to identify a new customer segment that the model will break down and target. This can be based upon existing customer insights and market research, however, it is also suggested that many nontraditional customer segments be explored. By changing the customer segment and letting that drive the prototyping activity, the outcome will be a range of business alternatives that create value in a new way, for new markets. Bankwest is a prime example of a Customer Led approach being the key driver to their business model. In the highly competitive world of retail banking, Bankwest focused largely on creating a better banking experience for a younger customer demographic. This new focus had a significant impact on the rest of their business, with Bankwest streamlining their product offerings to suit their demographic, set up branches in high traffic retail locations, and leveraging resources from their partner institutions.

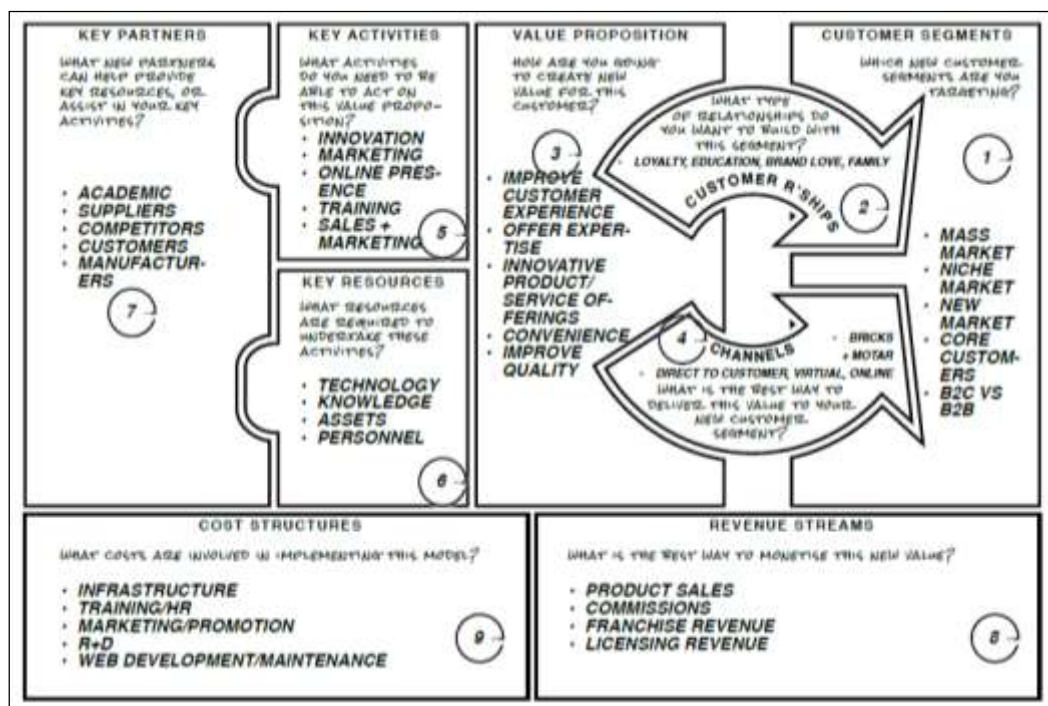


Figure 2. Customer Led

Cost Driven

Many innovative business models have been born out of an approach that strives to reduce or manage costs. Cost reduction is typically seen as a non-progressive approach; however, operating in a low cost environment can also create unique opportunities for a firm and often leads to the creation of a unique value proposition. A Cost Driven model (Figure 4) begins by suggesting that the business reduces its cost structure in a particular way. An example might be outsourcing manufacturing offshore, transferring to a low-cost marketing strategy, or reducing bricks and mortar sale locations in favour of a greater online presence. The designer then begins to build a business model that is driven by this change, and explore the implications and possibilities that arise. The focus is not centered on how the company will save money, but an overall prototype that explores how this new low cost environment can stimulate innovative improvement in other areas of the business. An example found in research of a Cost Driven business case was that of 99 Designs. This online graphic design platform revolutionised the marketplace by crowd sourcing graphic designers, and having them compete for projects. 99 Designs dramatically reduced their cost structure, by not employing in-house designers, and moving their model online. This low-cost environment allowed 99 Designs to offer its services at a far lower price point, and also meant that they were able to scale their business far more effectively than a traditional graphic design firm. Without drastically reducing the companies costs, it would have not been possible for this type of revenue model to operate, and therefore this cost driven approach is the primary driver behind their innovative business model.

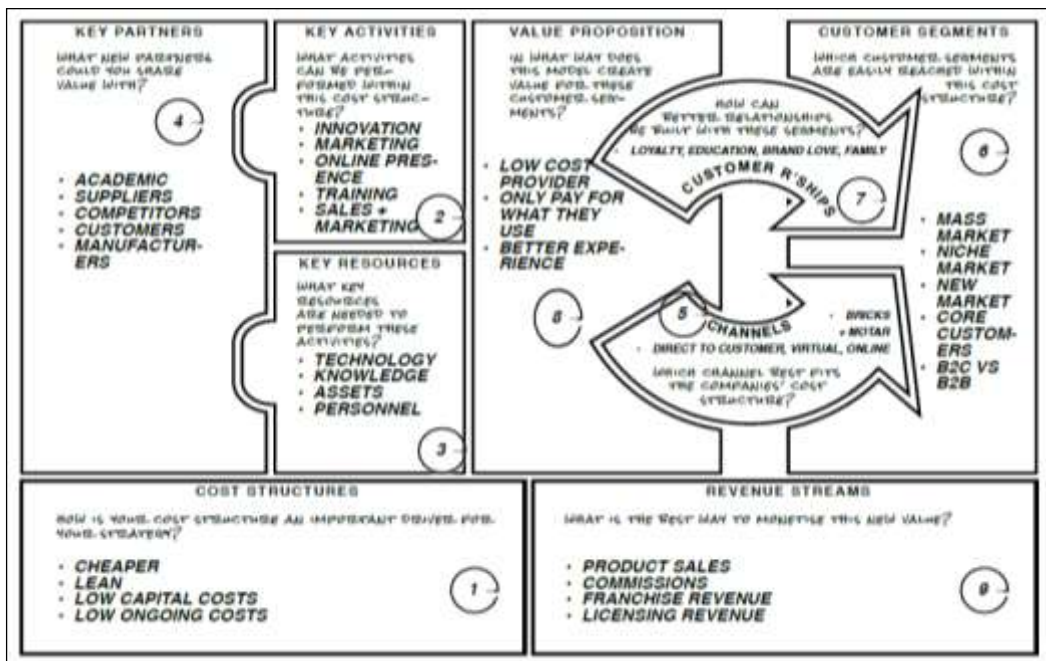


Figure 3. Cost Driven

Resource Led

A Resource Led approach (Figure 5) centers around a designer evaluating the internal resources and capabilities within a business, and looking to leverage these resources in a different way. Businesses resources are a primary constraint that can be used by a designer to establish its identity, and frame its strategy. A designer would first identify the company's resources and capabilities, and then look at restructuring or reapplying these in new ways. This exercise should be done for each of the firm's internal resources in order to uncover new value from existing infrastructure. This may be utilizing manufacturing capabilities for complimentary products, leveraging brand equity, or licensing existing patents or trademarks. An example of a company having a Resource Led business model was the fashion brand, Zara. Whilst there are many

innovative aspects of Zara’s business model it was found that these all stemmed from the restructure of their resources whilst also aligning their design, production and commercialisation assets and activities. This realignment allowed for leading trends and designs to reach the market quicker, thus giving them significant competitive advantage within their marketplace. This innovation within Zara’s supply chain then had significant implications throughout the rest of their business model. It proposed a new customer segment (younger, fashion forward women), which then dictated the price point their products are sold at (lower price point). Operating under lower margins therefore requires a reduced cost structure, which Zara made possible through better integration of their manufacturing and distribution partners. Indeed, some of these changes may have not unfolded the way outlined and perhaps some of these innovative changes may have occurred concurrently. However it is argued that this sequence represents the most logical progression, and also the most likely starting point. The resulting model therefore proposes a roadmap which is inspired by Zara, and other Resource Led business cases.

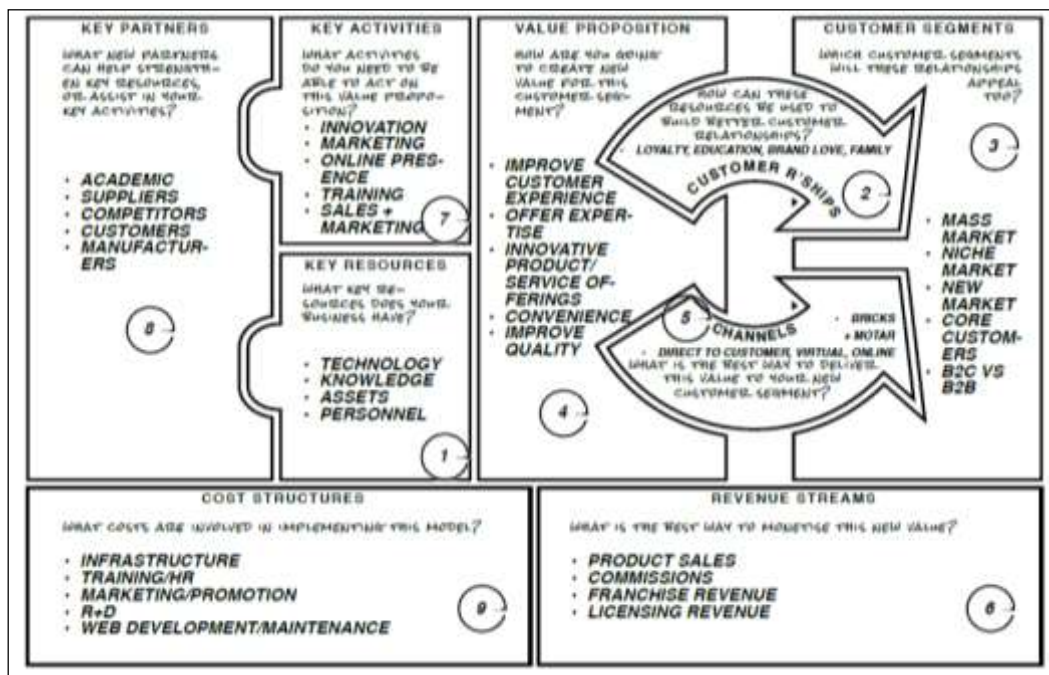


Figure 4. Resource Led

Partnership Led

The creation of partnerships can be a powerful driver for a firm’s strategy as it allows them to utilize external resources and capabilities. Partnerships can allow a firm to co-create value and often lead to exposure to a wider marketplace, reduction of costs, and can also improve future research and development outcomes. For the designer, identifying possible partnerships can be a fruitful exploration in order to expand the current possibilities within a business, or to overcome any constraints that may exist. An example of a Partnership Led approach (Figure 6) would be a retailer forming a distribution agreement with a foreign brand in order to reach previously unserved markets. An example of a Partnership Led model is the online product development platform, Quirky. Quirky crowd sources participants from around the world to collectively develop and commercialize new product inventions. This network is vital for Quirky’s business model as not only do they work with them to co-create value, but Quirky contributors also pay a submission fee, making them a lucrative source of revenue. Quirky’s reliance on its global contributors suggests this as the primary driver of their unique business model. The creation of this large partnership network allows Quirky to create new revenue streams, get products to market faster and with less risk, and also scale their business up faster than a traditional product development firm.

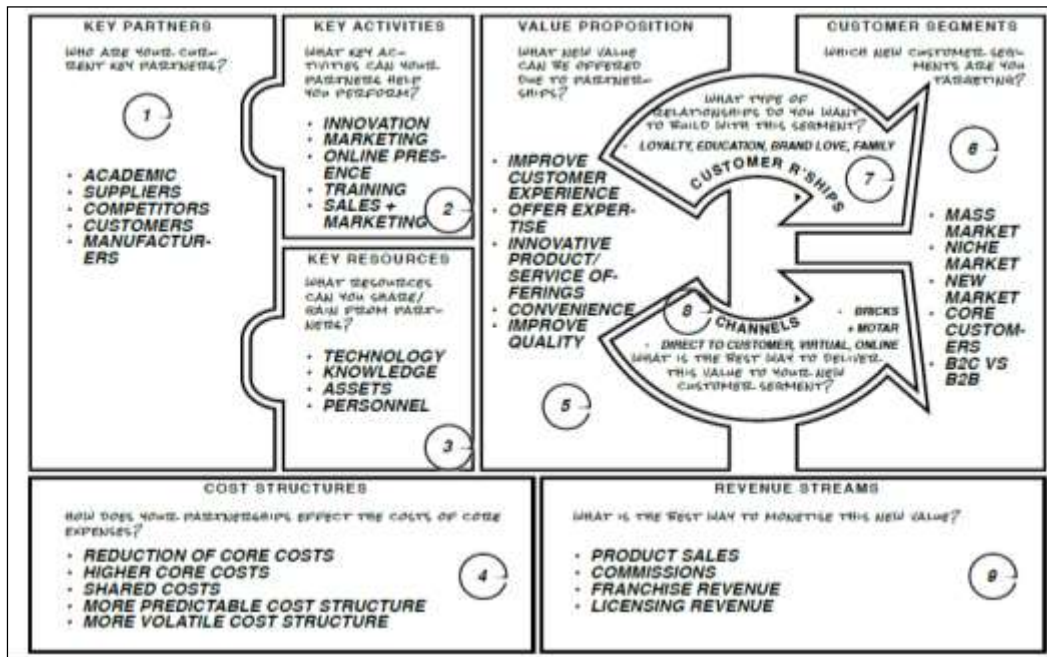


Figure 5. Partnership Led

Price Led

A Price Led strategy aims to position a firm as the price leader in their respective marketplace. A Price Led approach (Figure 7) first determines how a firm can become a price leader, and then creates a business model that explores the ways in which this will affect the business makeup. A price led perspective may encourage more cost effective channels, target a different customer segment, or propose taking on strategic partners who will aid in achieving this new value proposition. This model helps explore these effects and possible opportunities that exist for a firm which positions itself as a price leader. A business that has a Price Led approach is Southwest Airlines. Southwest Airlines pledged to become the cheapest form of short-haul travel, and not only considered other airlines as competitors, but also other transport services such as buses, and trains. This led Southwest to restructure its costs in order to make its position as price leader viable. Southwest achieved this in numerous ways including; establishing key partnerships with airlines, airports and travel agents, moving their ticket sales and passenger management online, and flying a point-to-point service. It is argued that this position as price leader was the fundamental driver to Southwest's strategy, and is an example of how this can be a catalyst for exploration in a Price Led business model prototype.

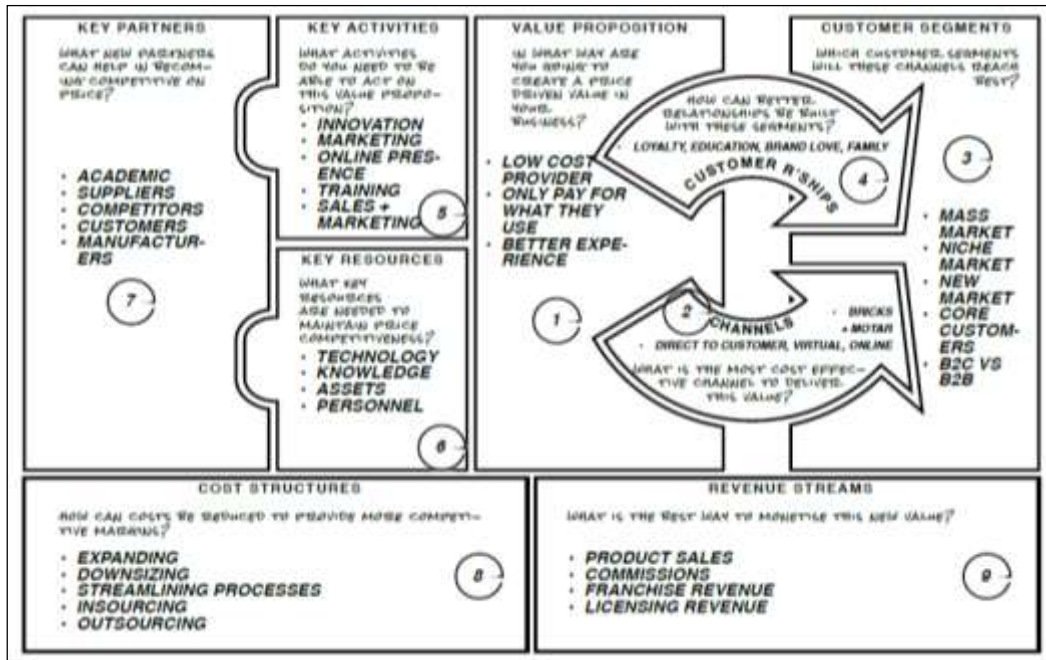


Figure 6. Price Led

IMPLICATIONS

As discussed in the literature, it can be difficult for internal stakeholders within a business to even consider moving beyond what is considered the dominant logic within their respective industry. Currently there are few tools that provoke and facilitate divergent thinking in regards to business model experimentation. A business model is never complete nor static and the process of creating and testing business models should be iterative and ongoing. These five typology models provide a tangible starting point from which a business can begin to explore different perspectives and gain insights into the internal and external capabilities of their company. By producing an array of prototypes, businesses are able to understand the implications of different business models and make clearer, better-informed decisions about where and how they want to compete. The results highlight the efficacy of these models and that in practice they should not be gauged by the viability of the business proposition that they propose; but by the quantity and diversity of the prototypes. Through utilizing these models a business is encouraged to broaden their horizons in search of new and untapped commercial opportunities. This form of experimentation provides stakeholders within a company a framework that can stimulate conversation, exploration and divergence from commonly held assumptions and logics within their respective industry. It is this type of practice that can foster business model evolution, in search of an innovative, reactive and anticipatory response to changing market conditions and environments. These five key foci provide the stakeholder with a viewpoint from which to quickly prototype new and innovative business models. The intent here is not to propose 'one right' model, but rather generate as many different and diverse concepts as possible. By following the order of the model and disregarding other constraints within the current business, the designer is able to rapidly prototype models based upon blue sky thinking rather than current restrictions and constraints. These five models facilitate this process, by providing a framework that can be exploited by designers from different backgrounds and expertise levels. The benefit of utilizing these tools is that the end result is a tangible artifact that can be used to provoke discussion, evaluation and iterative improvement and development of a business model design.

FUTURE OUTLOOK AND SUMMARY

In what is going to be an uncertain and rapidly evolving global economic landscape, it is clear that firms will have to become more adaptive and responsive to changes within their marketplace. In order to do this, businesses will not only need to engage in business model experimentation, but also look to embrace business model innovation as a core competency and a means for sustained competitive advantage. Therefore, this paper builds upon the emerging research and exploration into the importance and relevance of dynamic, design-driven approaches to the creation of innovative business models. These models aim to synthesize knowledge gained from real world examples into a tangible, accessible and provoking framework that provide new prototyping templates to aid the process of business model experimentation.

Future research may investigate our propositions with qualitative and quantitative research methods in order to open the black box of design experimentation and prototyping. We assume that exploratory research may help to gain a deeper understanding on how design experimentation and prototyping can facilitate business model innovation. In the long run, longitudinal analyses of business model innovation case studies may enhance the understanding of design-led business model innovation and its impact on the successful adoption and growth of new business models. At this stage, we cannot draw any conclusions. We hope that this paper is the start of an explorative effort to come and paves the way for a new stream of research from scholars in areas of innovation and strategy, whether they come from design, management, technology, or engineering.

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