Determining degree of innovation in business models by applying product innovation theory

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Chapter 1

Abstract

This thesis investigates if there is a linkage between product innovation and business model innovation. The immature research upon business models are set up against the more mature research on product innovations. A subset of product innovation theory, the Henderson and Clark (1990) classification of product innovations, is applied to several business model innovations from a case study analysis in order to classify them after the same framework. This is done with the observation that both products and business models can be described as components linked together in a specific way. More specific the research question is to find out if these examples of business model innovations can be classified in the same way that Henderson and Clark (1990) classifies product innovations, and if they can, what can be said about business models and innovation in the business model due to this classification? This study finds that there are different degrees of innovation in business models and that they can be classified with the Henderson and Clark (1990) matrix. The case analysis, and decomposition of business models outlines some clear similarities between business models from different industries, and shows that there are trends in how the innovations leads to a successful company.
# Contents

1 Abstract .................................................. 2

2 Introduction ........................................... 6

3 Business models ........................................ 9
   3.1 Definitions ........................................ 10
   3.2 Components in the business model ............... 12
   3.3 The business model Ontology ..................... 15
      3.3.1 Value proposition ............................ 16
      3.3.2 Target customer .............................. 16
      3.3.3 Distribution Channel ......................... 17
      3.3.4 Customer Relationship ....................... 17
      3.3.5 Core capabilities ............................ 18
      3.3.6 Value Configuration ......................... 18
      3.3.7 Partner Network ............................. 19
      3.3.8 Revenue Model ............................... 19
      3.3.9 Cost Structure ............................... 19

4 A subset of product innovation theory ............. 20
   4.1 Incremental innovation ........................... 22
   4.2 Modular Innovation ................................ 22
   4.3 Architectural innovation ......................... 23
Chapter 2

Introduction

According to a global CEO study performed by IBM\(^1\), where over 750 business leaders all over the world participated, over 65% of the asked people replied that they thought business model innovation would be the most important innovation for the future. Furthermore, fully 61% of CEO’s who have a primary focus on business model innovation fear that changes in the business model of a competitor could likely result in a radical change to the entire landscape of their industry.

Rapid advances in information and communication technologies have facilitated new types of technology-mediated interactions between economic agents (Geoffrion and Krishnan, 2003). This has enabled firms to change fundamentally the way they organize and transact both within and across firm and industry boundaries (Mendelson, 2000). Thus, the focus of organization design has shifted from the administrative structure of the firm to the structural organization, or architecture, of its exchanges (Amit and Zott, 2004). Echoing this shift, researchers have observed that the locus of value creation increasingly extends traditional firm boundaries (Dyer and Singh,

1998; Gulati, et al., 2000; Normann, 2001), and that they have called for broader conceptualization of organizational boundaries beyond the legally relevant demarcation of the firm from its environment (Santos and Eisenhard, 2006). The world is getting more and more like a global village. Globalization is bringing tougher competition and stronger market forces with it. And when the competition gets stronger, companies constantly needs to find new ways of doing business to sustain in the fierce competition. External market factors force companies to rethink the way they do business.

The business model as a research topic is a rather new construct and the term is confusing due to many definitions and that the term is used with different meanings in everyday business talk (Osterwalder, 2004). Because of the immaturity of business models as a research topic, the same can be said about business model innovation. In an early stage of this research the fact that business models can be described as a set of components linked together in a path that describes the business, was discovered together with the fact that this is also true for products. Products are a set of components linked together in a specific way to form the product as a whole. And where business model innovation is an immature research topic, product innovation is not. Product innovation research is a more mature and accepted topic. The fact that business model innovation research potentially can learn something from the product innovation is the underlying core of this thesis.

This thesis narrows down to a subset of literature on product innovation to investigate how it can apply on the business model as a construct. More specific the subset is Henderson and Clark (1990) and their classification of product innovations. Henderson and Clark (1990) found that the former classification of innovations into incremental and radical innovation was too narrow, and they introduced a framework consisting of incremental, modular,
architectural and radical product innovation. The core of their research lies in the fact that a product can be described as a modular system with components linked together, which is observed to also true for business models. By a comparative case study analysis of companies that have performed business model innovations, this research will investigate the linkage between product innovation and business model innovation. The cases used in this thesis are iTunes Store, Dell, SouthWest airlines, FedEx, Minute Clinic, Skype, WellPoint and PayChex. More specific the research question is to find out if these examples of business model innovations can be classified in the same way that Henderson and Clark (1990) classifies product innovations, and if they can, what can be said about business models and innovation in the business model due to this classification?
Chapter 3

Business models

Research on business models is a relatively new phenomenon. The interest in the field is growing since it first started to get popular around the times of the dot.com boom. The term business model is often used in various contexts, meaning various things, and for this reason it is quite an amount of confusion on the topic. Scholars on this field have focused on different angels of studying the phenomena of business models, and have covered many different aspects such as definitions, components, conceptual models, design methods and tools, taxonomies, change methodologies, evaluation models and adaptation factors. This thesis will focus on the first three: definitions, components and conceptual models. Those are the three factors needed in order to view the business model as a modular system and apply the Henderson and Clark (1990) matrix on in. The first part of this thesis study some of the work in this field in order to better understand the nature of business models.
3.1 Definitions

There are many proposed definitions on the business model, and they have some variations. In this section an investigation of some of the most know definitions will be conducted to illustrate that they hold many similarities.

A segment of researchers tries to explain what the purpose of business models is. "A business model is the method of doing business by which a company can generate revenue to sustain itself" (Rappa, 2001; Turban et al, 2002). It describes the basic framework of a business. It also tells what market segment is being served (who), the service that is being provided (what), and the means by which the service is produced (how) (Chaudhury and Kuilboer, 2002).

Linder and Cantrell (2000) describes the business model as the organization core logic to create value. A quite similar definition is provided by Petrovic et al. (2001) as well as Auer and Follack (2002) who share the view that a business model describes the logic of a business system for creating value that lies behind the actual processes. According to Applegate (2001), a business model is a description of a complex business that enables study of its structure, the relationships among structural elements, and how it will respond to the real world. Magretta (2002) refers to the business model as the story that explains how an enterprise works.

Another group of researchers tries to explain business models by describing what components that should be a part of it. The first author, and probably most cited, is Timmers (1998) who defines a business model as an architecture for the product, service and information flows, including description of the various business actors and their roles; and a description of the
potential benefits for the various actors; and description of the sources of revenue. Not very distinct from Timmers, Weill and Vitale (2001) defines a business model as a description of the roles and relationships among a firm’s consumers, customers, allies and suppliers that identifies the major flows of product, information, and money, and the major benefits to participants.

Amit and Zott (2001), provides a transaction-based definition of business models. A business model depicts the content, structure, and governance of transactions designed as to create value through the explosion of business opportunities. A business model includes the design of: transaction content (goods/services; resources/capabilities), transaction structure (parties involved; linkages; sequencing; exchange mechanisms), transaction governance (flow control). A business model describes the steps that are performed in order to complete transactions.

One of the newest definitions is proposed by Osterwalder, Pigneur and Tucci (2005) defining business models as a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, to generate profitable and sustainable revenue streams.

By looking at these definitions it is clear that they have many things in common. They all view the business model as some sort of logical construct describing a business with a number of elements/components. There seems to be a certain agreement among the scholars that the business model describes the customers, the value offered to the customers and how this value is created, although they vary in their level of abstraction. This is due to the
3.2 Components in the business model

The business model as a concept has its roots in strategy literature. Ansoff (1965) created the first concept of corporate strategy, building upon the work on strategy and structure presented by Alfred Chandler (1962). This work came to seen as a conscious plan to align the firm with opportunities and threats posed by its environment. Subsequently, strategy was divided into business strategy and corporate strategy by Andrews (1971), where business strategy was a subset of corporate strategy. As Andrews states; ”A company will have only one corporate strategy but may incorporate into its concept of itself several business strategies.” The business strategy is more focused on the internal factors of a company than on external threats in the competitive market. Based upon this strategy literature Hagel and Singer (1999), and Markides (1999) did further research on the sub-segment of business strategy. Hagel and Singer (1990) states that; ”No matter how monolithic they may seem, most companies are really engaged in three kinds of businesses. One business attracts customers. Another develops products. The third oversees operations.” Not very different form Hagel and Singer, Markides (1999) states that; ”Choosing a distinctive strategic position involves making tough choices on three dimensions: who to target as customers, what products to offer, and how to undertake related activities efficiently.” And it is these three components; the who, the what and the how, that are the core in the business model literature.

Most of the authors who give a definition of the business model propose a brief list of components that should be included in the business model. More recent literature focuses on decomposing the business models into component
and describing them with more details. There are many scholars naming components to the business model, but Osterwalder and Pigneur (2002) version is the most comprehensive work. First of all, they build their main building blocks out from well accepted strategy literature, such as Hagel and Singer (1999) and Markides (1999), and second, they have gone through all the other scholars lists of components to revel the total amount of nine components. Besides, whatever method being used to identify components in the business model, there seems to be a fair similarity between the results. Often components vary in its degree of abstraction leading to different numbers of components, but they basically want to describe the same. A comparison of the components of Osterwalder and Pigneur (2002) and two of the most cited and distinguished research groups on business models, Afuah and Tucci (2000) and Chesbrough and Rosenbloom(2002) illustrates this.

<table>
<thead>
<tr>
<th>Chesbrough and Rosenbloom</th>
<th>Afuah and Tucci</th>
<th>Osterwalder and Pigneur</th>
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<tbody>
<tr>
<td>Value Proposition</td>
<td>Customer Value</td>
<td>Value Proposition</td>
</tr>
<tr>
<td>Market Segment</td>
<td>Scope</td>
<td>Target Customer</td>
</tr>
<tr>
<td>Revenue Mechanism(s)</td>
<td>Revenue Source</td>
<td>Revenue Model</td>
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<td>Value Chain</td>
<td>Implementation</td>
<td>Value Configuration</td>
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<td>Cost Structure</td>
<td>Pricing</td>
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<td>Value Network</td>
<td>Connected activities</td>
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<td>Competitive Strategy</td>
<td>Sustainability</td>
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<td>Capabilities</td>
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<td>Distribution Channel</td>
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As illustrated in table 3.1, there are many similarities. There are differences in how the components are named, such as Customer Value and Value Proposition, Target Customer and Scope. The Customer Relationship
and distribution channel are components included by only Osterwalder and Pigneur (2002). This is a matter of abstraction, and how important the component is meant to be in the business model as a construct. Another component that differs is the Chesbrough and Rosenbloom component called Competitive Strategy, the same component that Afuah and Tucci calls Sustainability. This component can however be defined as a summary of the competitive advantages hidden in the rest of the components. For instance can the Core Competencies include a patent that secures competitive advantage, or there could be strategic alliances in the Value Network. It is appropriate to conclude that the competitive strategy component should be removed. This view is also supported by Magretta, (2002) who states that "when a new model changes the economics of an industry and is difficult to replicate, it can by itself create a strong competitive advantage". Or "the business model can be a source of competitive advantage that is distinct from the firm’s market position" (Christensen, 2001). "Firms that address the same customer need, at that pursue similar product market strategies, can nonetheless do so with very different business models" (Amit and Zott, 2004).

Due to this review the Osterwalder and Pigneur (2002) definition and components will be used for the rest of this thesis. It is important to use the model that is the most developed, but either of these models would have worked for this thesis. The further research into the business model, as a research topic, will be done by the examining in detail the Osterwalder and Pigneur (2002) ontology for business models, due to the fact that this is the most comprehensive and mature framework. This ontology will also used in the case analysis chapter.
3.3 The business model Ontology

As noted there are many authors that have defined components for the business model but fewer have tried to link them together and explaining their relationships.

Osterwalder and Pigneur (2002) describe in detail what each element in the business model contains, and how they are connected. As discussed earlier, their framework is built upon Markides (1999), Hagel and Singer (1990) and also influenced by the Balanced Scorecard approach proposed by Kaplan and Norton (1992). This turned out to be four basic pillars that are further decomposed into nine building blocks. These nine building blocks are then connected into what can be called an ontology or a modular system.

To better describe the cases in the case analysis chapter a closer look to the components of the Osterwalder and Pigneur (2002) is relevant.
3.3.1 Value proposition

The Value Proposition is an overall view of one of the firm’s bundle of products and services that together represents value for a specific Target Customer. It describes the way a firm differentiates itself from its competitors and is the reason why customers buy from a certain firm and not from another. This can be measured by the formula \[ \text{Customer Value} = \frac{\text{Perceived Value}}{\text{Total cost (Time, money, effort)}} \] (Lindstedt and Burenius, 2003). The Value Map (Kambil, Ginsberg et al. 1997) is an excellent tool to map an industry at a value frontier. The value frontier shows what level of value currently available to a minimum price. It is possible to position a company along the whole value frontier, but it is also possible to shift the entire value frontier by creating a way to bring more value for less price. It is often useful to look at the Value Proposition during the whole value life cycle (Anderson and Narus, 1999), and study the value delivered in all five phases in the value life cycle; value creation, value purchase value use, value renewal, value transfer. A strategy canvas can be applied to figure out what part of the Value Proposition that holds the strategic differentiation (Kim and Mauborgne, 2002). This component also describes the price level of the product or service; if it is free, economy, market or high-end priced.

3.3.2 Target customer

The Target Customer is the second component of the business model ontology. Selecting a company’s Target Customer is all about segmentation. "Effective segmentation enables a company to allocate investment resources to Target Customers that will be most attracted by its value proposition" (Osterwalder, 2004). The Target Customer definition will also help a firm define through which channels it effectively wants to reach its clients.
3.3.3 Distribution Channel

This is the link between the Target Customer and the Value Proposition. The component is responsible for telling the right Target Customer, the right Value Proposition at the right time (Pitt, Berthon et al. 1999). A distribution channel is used to reach the customers for example through a direct sales force or through a website. The most familiar distribution channel is the retail store often cited as the ”brick and mortar” distribution model. ICT (information and communication technology), and particular the Internet has a great potential to complement rather than to cannibalize a business’s existing channels (Porter 2001). However, selling through several channels simultaneously eventually causes channel conflict when they compete to reach the same set of customers (Bucklin, Thomas-Graham et al. 1997).

3.3.4 Customer Relationship

”Profits from the customer relationship are the lifeblood of all businesses” (Osterwalder, 2004). The profits can be achieved through acquisition of new customers, the enhancement of profitability of existing customers and the extension of the duration of existing customer relationships (Grant and Schelsinger, 1995). Mechanisms to hold a good customer relationship are personalization, trust and brand. The personalization mechanism is about getting the customers to feel personally appreciated, for example a polite and helpful employee in the grocery store or the function on Amazon.com that remembers the customer and gives them personal shopping advice based on what they have bought in the past. The trust mechanism is about the customers feelings about the product or service provided to them. That it is of expected quality and that the reputation of the company makes them comfortable with buying. The brand mechanism will make customers come back again and again due to communicated message through a brand. This
is a very common relationship mechanism in the fashion industry, where
the brand message tries to make the Target Customer to identify with the
product proposed to them. The Customer Relationship is often about getting
to know the customers better in order to know what they need.

3.3.5 Core capabilities

A firm has to have capabilities in order to create a Value Proposition. These
capabilities depend on the assets and resources of a firm (Bagchi and Tulskie,
2000). Increasingly there is a trend that these resources are outsourced to
partners, leaving the company to focus on its core capabilities. These Core
Capabilities can be tangible assets such as plants, equipment and cash re-
served, they can be intangible assets such as patents and copyrights or they
can be human assets such as knowledge and skills.

3.3.6 Value Configuration

”The main purpose of a company is to create a Value Proposition that a
customer is willing to pay for. This Value Proposition is the outcome of a
configuration of inside and outside activities and processes” (Osterwalder,
2004). When describing the value configuration one can use Porter’s (2001)
framework for value chains, Stabell and Fjeldstad’s (1998) value shop and
value network. The value chain contains inbound logistics, operations, out-
bound logistics, marketing and sales and service. This is built up in a logical
sequence, where each part adds value to the product. The value shop rep-
resents an extension to the value chain better describing service providers
such as consultancies, that has a different configuration than manufacturing
companies. The value network is used if there is added value to a product or
service due to a network. Examples of the latter can be the cellular phone.
The product itself is not worth much unless the users are connected to a
network that holds the real value.

### 3.3.7 Partner Network

This component describes what parts of the value configuration that is provided by external partners. These partners can be of strategic value to the focal firm or be an outsourcing partner for a less important part of the value chain. An example of partnerships can be strategic alliances, joint ventures, to be better sustainable in a highly competitive environment (Dussauge and Garrette, 1999). Partners can also get together to share customers or to share risk.

### 3.3.8 Revenue Model

This element describes how the company is capable of capturing a stream of revenue from providing a Value Proposition to a customer segment. A company’s revenue model can consist of several revenue streams with different pricing mechanisms (Osterwalder, 2004). A company can generate a revenue stream by selling its products or services to a customer, but there can also be other models such as licensing, advertising and subscription.

### 3.3.9 Cost Structure

The cost structure can be viewed as the price tag to every operation in the organization. The sum of the cost structure is the price to provide a given Value Proposition to a given Target Customer (Osterwalder, 2004).
Chapter 4

A subset of product innovation theory

Traditional categorization of innovation as either incremental or radical is incomplete and potentially misleading (Henderson and Clark, 1990). Incremental technological innovation is a term used when there was a minor change to an existing technology, while radical innovation includes new science and often results in new markets and product opportunities. Incremental innovation is competence-enhancing innovations that exploit existing skills and knowledge within the community. These innovations serve to consolidate industry leadership in the larger organizations and hinder the development of new organizational forms. Radical innovations are however competence-destroying and spur the creation of new organizational forms that can quickly acquire and utilize the new technologies. Large, well-established organizations with too much inertia to adopt the new innovations suffer and lose their dominance (Tushman and Anderson, 1986). However later research finds this classification of innovations important for insight in innovation, but fundamentally incomplete.
Henderson and Clark (1990) studies of the semiconductor photo lithographic alignment equipment industry shows that the former classification (incremental, radical) of innovation does not account for some major changes in industry due to seemingly minor improvements in technological products. They introduce two new types of innovation classification; architectural and modular innovation.

Fig: The product innovation matrix, Henderson and Clark (1990)
The matrix is built upon two axes. The X-axis is the core concepts and whether or not they are changed in an incremental or radical way. The Y-axis is the linkage between the components and whether or not the linkage is changed. This results in four possible innovations.

4.1 Incremental innovation

This type of innovation refines and extends an established design. Improvement occurs in individual components, but the underlying core design concepts, and the linkage between them, remain the same Henderson and Clark (1990). This tends to reinforce the competitive positions of established firms, since it builds on their core competencies Henderson and Clark (1990). An example of this kind of innovation is faster spinning hard drives. This type of innovation is very common and happens all the time.

4.2 Modular Innovation

This type of innovation changes the core design of one or more components but does not change the overall product architecture. This type of innovation will require new knowledge for one or more components, but the architectural knowledge remains the same. This is a competence destroying innovation since new knowledge of a new component has to be acquired and the knowledge of the replaced component is no longer a valuable asset. An example is the digital phone who replaced the analog phone, without changing the phone itself (Henderson and Clark, 1990).
4.3 Architectural innovation

The essence of an architectural innovation is the reconfiguration of an established system to link together components in a new way (Henderson and Clark, 1990). It is important to notice that architectural innovation does not mean that the components remain unchanged, but they are changed in such a way that it opens up for new ways of linkage between the components. But the change is so small that the core concept behind the changed component is the same, and the associated scientific and engineering knowledge, remain the same (Henderson and Clark, 1990). An example of this is the technologies where architectural innovations shrunk the size of the hard drives—from 14-inch diameter disks to diameters of 8, 5.25, and 3.5-inches and then from 2.5 to 1.8 inches (Christensen, 1997). This kind of innovation is often hard to spot by competitors, and can only be found by reverse engineering, and when they are found it requires new knowledge of how the components now are linked together, leaving the first to market with a leap ahead.

4.4 Radical innovation

This type of innovation establishes a new dominant design and, hence, a new set of core design concepts embodied in components that are linked together in a new architecture. Radical innovation creates unmistakable challenges for established firms, since it destroys the usefulness of their existing capabilities. In terms of Henderson and Clark (1990), "it destroys the usefulness of both architectural and component knowledge".

23
4.5 Modularity systems

It is interesting to go a bit deeper into some of the terms used in this section. For instance the dominant design. A dominant design is characterized both by a set of core design concepts that correspond to the major functions performed by product (Marples, 1961; Alexander, 1964; Clark, 1985) and that are embodied in components and by a product architecture that defines the ways in which these components are integrated (Clark, 1985; Sahal, 1986). A dominant design often emerges in response to the opportunity to obtain economics of scale or to take advantage of externalities (David, 1985).

The most important part of the investigation of the Henderson and Clark (1990) article, is the fact that they describe a product as a number of components linked together as a modular system and that they classify the degrees of innovation by looking at how the components are changed. The distinction between a product as a whole and a product as parts can be drawn long back in time (Marples, 1961; Alexander, 1964). For instance, the major parts of the car are its wheels, the motor, the interior, the steering wheel and so on. Let us call these the components of the car. Each component has a certain design and role in the overall architecture, that is the whole. These components can be put together in various ways and in various combinations. There is a large difference between the parts of the six-cylindred PV651, 1929 Volvo, and the 2006 Volvo S80, but the overall architecture serves the same purpose in general, and its called a car. And architectural innovation is actually what Schumpeter (1934) calls recombination of existing resources into a new design.
4.6 Modularity systems and the business model

As learned, a product can be described as a modular system and a product innovations can be classified by looking at how the system is changed. But products are not the only modular system. Modularity is a general systems concept: it is a continuum describing the degree to which a systems components can be separated and recombined, and it refers both to the tightness coupling between components and the degree to which the rules of the system architecture enable (or prohibit) the mixing and matching of components. Since all systems are characterized by some degree of coupling (whether loose or tight) between components, and very few systems have components that are completely inseparable and can not be recombined, almost all systems are, to some degree, modular (Schilling, 2000). Configuration theory provides a useful basis from which to evaluate different business model designs by considering holistic configurations, or gestalt, of design elements (Miles and Snow, 1978; Mintzberg 1979). Configurations are constellations of design elements that commonly occur together because their interdependence makes them fall into patterns (Meyer, et al, 1993). The design elements of a business model are the content, structure and governance of transactions that serve the focal firm to pursue, and exploit business opportunities. Miller (1996) states that, Configuration...can be defined as the degree to which an organization’s elements are orchestrated and connected by a single theme.

Since, per definition, the business model is as a system of components linked together, there can also be stated that business models are modular systems. And the Henderson and Clark (1990) classification framework should also apply for other modularity systems such as the business model.
Chapter 5

Method

This thesis uses a comparative case survey method to classify the degree of innovation in the business model. A case study is not qualitative research, as is often confused by laymen. It is a research strategy, to be likened to an experiment, a history, or a simulation and not linked to any particular type of evidence or method of data collection (Yin 2003).

5.1 Choice of topic and methodology

The method used in this thesis has its weaknesses. The results discovered relate to the unit of analyses and allow no inductive generalizations. The findings also entail personal impressions and biases; hence no assurance of objectivity, validity and reliability (Sarantakos, 2005). However, the method of case study can be concluded as the appropriate way to investigate this research question by looking at Yin (1994) that presented at least four applications for a case study model: To explain complex causal links in real-life interventions, to describe the real-life context in which the intervention has occurred, to describe the intervention itself, and to explore those situations in which the intervention being evaluated has no clear set of outcomes. This
is really what business models is all about. They are complex causal links in a real-life intervention that this thesis wants to explore where the intervention has occurred, the business model innovation. This thesis wants to explain the intervention itself in a landscape where the intervention has no clear outcome.

5.2 Instrumentation

The research question is to find out if these examples of business model innovations can be classified in the same way that Henderson and Clark (1990) classifies product innovations, and if they can, what can be said about business models and innovation in the business model due to this classification?

The variables to measure will be the components of the business mode. Each case will be decomposed into its components with weight on the components where the innovation has occurred. Each component will be described with focus on how the innovation has effected the business model and compared to the components of their competitors. Each component that holds an innovation will be used in an argument to classify whether the business model is an incremental, modular, architectural or radical innovation.

Hypothesis: Business models can be viewed as a modular system, and the Henderson and Clark (1990) matrix can be used to describe and classify business model innovations.

5.3 Sampling

The cases used in this thesis are iTunes Store, Minute Clinic, Dell, Skype, SouthWest Airlines, FedEx, WellPoint and PayChex. When choosing cases
for this study, it has been weighted that the cases represents various industries, various sizes in various decades. The cases has, prior to this study, been branded as business model innovations by scholars. The cases also represents both startups and transmission of old companies.

An observant eye will notice that none of the cases in the samples represents incremental business model innovation. This choice is due to the fact that incremental improvements happens all the time in companies, and does not represent something that is easy to notice from the outside. An example of incremental business model innovations would be if an airline decided to offer business men a free copy of The Economist when they enter their flight. This does however increase the value proposition, but not in a degree that is worth considering in this thesis.

To avoid errors there has been a focus on the components in the business model with obvious innovations. A focus on every innovation in the business model conducted by old and complex companies like FedEx and Dell would have resulted in a more complex picture of what the case is chosen to illustrate. There has been accepted some degree of generalization, some of the companies offers a variety of products and services to a variety of customer segments. This study has chosen to look at complex firms in a less complex way form. For example in the case of Dell where the focus has been on the value proposition offered to the private costumers, and the business segment has been ignored.

5.4 Methods of data collection

To collect information about each case there has been a study of articles written by scholars on the subject of business model innovations, where some
of the aspects of the cases are covered. In addition company history, often found on their web page, together with articles in magazines such as The Times and The Economist as been a source of information.

5.5 Data analysis

The data was analyzed as previously explained with decomposing the case into components and focusing on the components with change applied to it. There were no statistics measures nor computation involved in the analyses of the data set. The cases are set up against each other to explore the differences.
Chapter 6

Cases

For each case there will be conducted a deconstruction the business model with emphasis on the components that holds the innovation.

6.1 Minute Clinic

1Minute Clinic pioneered the innovative model for convenient, affordable and quick walk-in health care centers located all over the United States. They now count over 150 clinics. The value proposition of the Minute Clinic stands in contrast to the value proposition of a regular doctor. Their target customer is a sub-segment of the sick population, for common illnesses such as strep throat, bronchitis, ear infections, sinus infections, Minute Clinic provides quick, convenient care. Minute Clinic provides a consultation with a health care professional, a prescription when clinically appropriate and the choice of having it filled on site. So instead of picking up the phone, order an appointment, wait for the appointment and even wait at the doctors office,

1Information for this case is retrieved from www.minuteclinic.com and http://www.usatoday.com/money/industries/health/2006-08-24-walk-in-clinic-usat_x.htm
the customers can walk right in and get their illness fixed in less than 15 minutes. The Minute Clinic is often located near a pharmaceutical so that is quick and easy to get prescription medicine. The price is cheap and in most cases subsidized with insurance. They advertise short waits and 15-minute exams, and some give out pagers so clients can shop while waiting. Prices are posted at Minute Clinic, on an electronic sign, as in a fast-food restaurant. In contrast to regular doctors they are open in weekends and evenings.

Instead of using regular medical offices for providing medical treatment, Minute Clinic have chosen to use the retail model. The patients can get their health checked while shopping, due to the fact that Minute clinic is located at shopping malls such as Wal-Mart. This is an innovation in the distribution channel.

Nurse practitioners, nurses with advanced degrees who can write prescriptions, staff most clinics. They reduce costs because they make, on average, less than half of what regular doctors make. The nurse practitioners, who most often work alone, not only diagnose ailments but also input computer data, process payments, dispense tip sheets on how to avoid future illness and send patients thank-you notes. If clinics cannot treat someone because an ailment is too serious, such as bronchitis that’s advanced to pneumonia, most clinics refer clients free of charge to a local doctor or emergency room. Clinic operators say they refer out about 10% of clients to family doctors. Nurse practitioners have at least six years of schooling and use proprietary software that helps them examine and question patients. This is a change of the core capabilities and value configuration to support the value proposition.
6.2 Wellpoint

Wellpoint is the US nation’s leading health benefits company serving the needs of approximately 34 million medical members nationwide. Wellpoint is included in the S&P 500 index. Wellpoint was near bankruptcy 20 years ago as Blue Cross of California. The company has since made a stunning reversal, becoming the best-performing U.S. Health insurer, a highly profitable business with 2001 revenues in excess of $12 billion, and a star on Wall Street. But to make the shift the company had to change its business model in an industry with long traditions and long-held beliefs.

The belief that the big companies, universities, governments institutions, and the like were the only profitable customer was one of the hard beliefs in this industry in the late 80’s. This was due to the fact that to calculate risk for small companies or individuals were far more difficult than to calculate the risk in organizations with thousands of employees. Small business, with much higher failure rates than large companies and therefor much higher receivables risk, were considered undesirable. Not only was the small customer segment risky and undesirable, but the company structure of Wellpoint did not support it with all its back-office operations were combined for all customers for economics of scale. Wellpoint then did something that the industry, in which it operated, considered to be heresy, it broke its massive claims processing factory into three pieces, each with its own general manager, serving three different customer segments; individuals, small groups and large groups.

Marketing and selling to individuals is far from the same as to corporate accounts. Individuals often buy insurance through independent brokers, not

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2Information for this case is retrieved from www.wellpoint.com and (Deloitte, 2002)
through the benefits consultants used by large companies. They don’t have an HR department to iron out problems, and they are bewildered by the complexity of health insurance. Because of these differences, Wellpoint had to change its value proposition and its distribution channels to this segment. They also offered different health insurance solutions to one company, leaving the employee in a company to choose a insurance to better meet his or hers needs.

By separating the operations for each customer segment, Wellpoint has dramatically improved its ability to understand the important needs of each segment, and to create new health insurance plans or features to meet those needs. They quickly understood that the customer knowledge is the key to build better products, based on the customers need. Wellpoint has created three business models inside its company by creating different operations, including claims and customer services to meet the needs of three distinct customer segments.

Many competitors have huge cost tied up in serving all their customers through a single organization; separating these operations as Wellpoint did, would cost millions and risk organizational havoc. The kind of business model innovation that Wellpoint did is to be considered as a tremendous achievement with a great upside, but it is a risky operation. This has left many would-be Wellpoint imitators far behind. A company worth literally nothing 20 years ago, today has a market cap of more than $6 billion. The industry norm and belief was that individuals and small-group businesses was undesirable before Wellpoint shifted this belief by performing a business model innovation. The reason that the new segments was undesirable was due to the former business model that normed in the industry.
6.3  iTunes Store

iTunes is a digital media player application, introduced by Apple Computer on January 10, 2001 at MacWorld Expo in San Francisco. The software was designed to play and organize digital music and video files. iTunes can be used to connect the iPod portable music player and to connect to the iTunes store former know as the iTunes Music Store. It is the latter that is the focus in this case review, the investigation of the iTunes store as a business model in the music distribution industry. The program is available for free as a download off of the Apple website, bundled with all Mac computers and some iPods, and supplied with Mac OS X. It is also offered as part of Apple’s iLife suite of multimedia applications. As of February 22, 2006, over 1 billion songs have been downloaded since the service first launched on April 28, 2003. The iTunes Store has been largely responsible for the digital transformation of the music industry, today iTunes counts for about 70% of legal music downloads. The interesting aspect of the iTunes music store is that they went from being a software for listening to music, to beeing a music distribution channel that holds the potential to compete with regular music distributors such as Warner Music Group and EMI in the future.

iTunes Store allows the customers to easily buy and download music through the iTunes software on an Windows or Macintosh computer. Not only music but also other types of digital content such as audio books, music videos video trailers. The user can download one or several songs for 99 cents each instead of going to a regular music store and buy a whole album. iTunes have made agreements with regular music distributors to allow users to pay for and download music with copyrights that is not held by Apple themselves.

This does not lead to a great deal of profit for the iTunes store, but surly backs up the sales of iPods and does increase the customer value of the store.

The most interesting part of the whole iTunes Store business model is the fact that Apple are working on distribution tools that will allow record labels to distribute music direct through iTunes, and skipping regular music distributors. It may be that iTunes does not make much profit from dealing with copyright music owned by regular music distributors such as Warner Music group and EMI, but when they get the exclusive right to sell new music the upside and revenue will be larger.

iTunes is a great source for customer knowledge. By analyze the way customers shop and listen to music, Apple get customer knowledge that outperform the regular music distribution industry, allowing Apple to develop their Value Proposition to better meet the customer needs. This is a changed customer relationship.

As i already mentioned, iTunes Store have made deals with copyright owners of music, to get the rights to sell their music. But they also work direct with record labels, allowing new music to be sold direct through the iTunes Store. By looking at iTunes Store as a future actor in the distribution of music, it is clear that they hold a great potential threat for the music distribution industry. The future has to judge whether or not this business model will sustain as a profitable one, but it leaves no doubt that it will change the music distribution industry if they succeed on being the choice for record labels and others willing to use the iTunes store as their distribution channel.
6.4 Dell

Dell allow their customers build and buy your PC online for a less price than in retail stores, and have become a major player in the industry the last decade. Dell generated a 160% return on its invested capital by allowing customers to build their own computers online, then successfully manufacturing and delivering these computers with a lead time of 5 days for the delivery of the products (Ghiassi and Spera, 2003).

Dell's target customer segment, was for starters the experienced PC buyers. They had enough computer knowledge to buy their own PC from Dell’s online store, not requiring or needing the value added buy personnel in PC retail stores. In return for the customers experience, they would save money when acquiring a PC. One can say that this experienced customer segment is a sub-segment of the total PC market, and that this customer segment was growing since people got more and more experience with PCs. Dell was the first company in its industry to capture this segment, hence somehow they invented it. One could go into a discussion whether or not a company can invent a segment, which obviously already exist, but what I mean by inventing, is that they where the first company to target this particular sub-segment of the total PC market. In respect to the business model Ontology, Dell has changed the target customer component, but this segment was growing and soon resulted in a mass market.

Dell introduced the direct sales model into the PC supply industry, when they started to let customers buy PC over Dell’s online store instead of the classic retail model. However, the direct sales model, known around Dell as simply "the model," isn’t an entirely new concept. Montgomery Ward began selling items directly to customers in 1872 from a mail-order catalog. This
means that Dell’s direct model is not a new concept, but new in terms of being online, and new in terms of being in the PC supply industry. Dell’s business model functioned much like a strategy: It made Dell different in ways that were hard to copy. If Dell’s rivals tried to sell direct, they would disrupt their existing distribution channels and alienate resellers on whom they relied (Magretta, 2002).

**Fig: Channel Conflict**

By introducing the online store for PCs, Dell was/is able to collect important knowledge of their customers shopping habits. This has given Dell important knowledge of their target customers, leading them to constantly developing the customer shopping experience to better meet their needs. It is much easier to gather customer data in an online environment than in a classic retail environment.

Dell has developed flexible manufacturing techniques that allow the com-
pany to virtually build computers to order. To support this strategy, the company runs a lean manufacturing operation. By working closely with suppliers, inventories of components and materials are minimized. Dells close relationships with its suppliers have allowed the company to operate with nearly no work-in-process inventory. Building systems to order means that there is no finished product inventory in the channel to manage (Bowersox et al., 1999). All of this leads to a tremendous change in the amount of working capital since the customers pay even before the product is manufactured. When the working capital is increased, the cost of capital decreases, and the share holder value increases. Hence, Dell’s close relationship with its suppliers, its direct-to-customer model, was a great competitive advantage when introduced.

Dell has shifted many of the components in the business model, and has created a tremendous source of shareholder value over the years. The sustainability is mainly caused to its creation of channel conflict of its competitors.

6.5 **FedEx**

FedEx (Federal Express) is a package delivery company that started in 1973 and created an express delivery service with 389 employees serving a fleet of 14 Falcon jets that carried 186 packages to 25 US cities. Today FedEx does business worldwide with over 200,000 employees. FedEx changed the value proposition of the package delivery industry by introducing overnight package delivery. This was possible due to a major change in their Value Configuration.

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FedEx founder Fred Smith pioneered the hub and spoke model for overnight package delivery in the mid-1970s. Smith established his company’s hub at Memphis International Airport (Memphis, Tennessee). Soon after, competing firms like UPS and Airborne had no choice but to develop their own hub and spoke model given the natural superiority of this system for speedy delivery of packages. The hub-and-spoke model derives its name from the bicycle wheel, which consists of a number of spokes extending outward from a central hub. The term is often used in a logistic context. This model is more efficient than the, often compared, point to point transit model. For N nodes in the network, the hub-spoke model only needs N-1 routes to connect the nodes, compared to N*(N-1) or O(N^2) nodes required to connect all the nodes in a point to point network. The use of the hub-spoke system leads to more efficient use of scarce transportation resources. For example, aircraft will be more likely to fly with full capacity, and can often fly routes multiple times in a single day. They have found that this method of distribution reduces transportation costs, improves cycle times, and reduces inventory. Using hub-and-spoke designs has become increasingly important in the context of supply chain management (Abdinnour-Helm, 1999). Improving the efficiency of the distribution function by cutting time and cost will contribute to reducing the total cycle time and total cost of the supply chain, hence improving customer satisfaction.

### 6.6 Southwest Airlines

More than 35 years ago, Rollin King and Herb Kelleher got together and decided to start a different kind of airline. They began with one simple no-

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tion: If you get your passengers to their destinations when they want to get there, on time, at the lowest possible fares, and make darn sure they have a good time doing it, people will fly your airline. The essential elements of the business model were: a single-type fleet of planes; fast turn-rounds; use of cheap secondary airports; no frills—definitely no moisturizer in the toilets; and enticingly low fares that rose only as a flight filled up.

The best way to illustrate the value proposition of the Southwest airlines is to draw the strategy canvas introduced by Maurborgne and Kim in the book Blue ocean strategy (2005).

**Fig: SouthWest Airline Value Proposition**

This illustration shows the different parts of the value proposition (on the x-axes) against the offerings (y-axis), whether it is high or low. As this illustration shows, the value proposition of the Southwest airlines have more
similarities with the car than with other airlines. The focus is on low-cost, no frills and many departures.

It is really an interesting observation that the hub-and-spoke model, first introduced by FedEx and then applied by the passenger airlines leaves an open position for a direct point-to-point model. This can be illustrated by the Value map of the airline industry (Kambil, Ginsberg et al. 1997). Southwest Airlines was the first airline to go away from the hub-and-spoke model that I introduced in the FedEx case, and totally shifted the value frontier of the passenger airline industry.

![Value Frontier](image)

**Fig: Value Frontier**

In the airline industry the major airlines converged towards similar value propositions, resulting in commoditization and lower profit margins. This was due to the fact that every major airline grabbed a hold on the hub-and-spoke model invented by FedEx as previously mentioned. On the other
hand, the extremes of the curve show companies which provide significantly
different services. Southwest Airlines is the typical low-cost, low-frills sup-
plier, yet still provides the basic performance attributes customers expect
(frequent departure, on-time arrival, good customer service). Executive jets
and the Concorde on the other end of the curve, providing extremely high-
quality service (flexibility, comfort, privacy) at a corresponding high price
(Osterwalder, 2004).

6.7 Skype

Skype was a startup founded by Niklas Zennstrm and Janus Friis in 2003.
They were also the founders of the KaZaA who has been the most down-
loaded software on the Internet in History. KaZaA is a peer-to-peer software
allowing users to share and download music, software etc. Similarly Skype
is founded on peer-to-peer technology allowing the users to talk with Voice
over IP technology.

To download and chat with Skype you don’t have to pay, but you have
to buy credit to call to regular phones. However the price for that is cheap,
especially if the call is domestic. The customer relationship is build upon
a community allowing people to find each other, and the user interface is a
classical instant messenger client.

The interesting part about Skype is that they could be a competitor for
regular telecom operators. Skype has a large user base and it is growing. To-
gether with the fact that broadband quality is increasing, and that wireless
Internet is becoming widespread the value of using Skype is increased for the
users. The business model of Skype is not similar to one of a regular telecom

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6Information for this case is retrieved from www.skype.com and Osterwalder (2004)
operator. They have changed almost all the components.

Skype has combined the IM (instant messenger) client with P2P (peer to peer) and VoIP (voice over IP) technology into a Global P2P Telephony Company as they call themselves.

6.8 PayChex

PayChex was founded in late 1970 to delivers payroll outsourcing to the small-business segment, a segment largely ignored by payroll incumbents. This has lead PayChex to superior performance over its industry peers on total shareholder returns, market value, real asset growth, and other measures.

The opportunity to satisfy a large number of small business whose needs were not being addressed by the leading incumbents such as Automated Data Processing Inc. PayChex defined its customer segment by looking closely at the payroll needs of small businesses. Realizing that small-business needs for efficient, affordable payroll processing were unmet, it understood their needs better and redefined them. In the process, PayChex successfully altered customer perspectives on what their choice were. PayChex invented the market for small-business payroll outsourcing.

PayChex broadened the customers choices and simplifying the offerings. For instance, it provided a choice of customized solutions that are typically available only for large companies.

PayChex developed technology for cost-effectively complying with state and

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7 Information for this case is retrieved from (Deloitte, 2002)
federal tax requirements. PayChex engineered its operations to serve its target customer group and using information technology to tightly integrate with customer’s systems.

The sustainability of Paychex’s business model innovation is doubtless rooted in the advantageous customer access and customer loyalty it has archived as part of its first-mover advantages and the difficulty for the incumbents to alter their original business model.

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Chapter 7

Discussion

There has now been an investigation of various examples of business model innovation from decomposing the cases. This has shown the fact that the business model is some sort of a sub-segment of strategy and that it can be viewed as a set of components linked together. What needs to be considered is the validity of the research question. Can business model innovations be classified after the Henderson and Clark (1990) matrix, and if so, what can be learned about business models doing so?

The first part of this discussion will be used to go through the business models from the case analysis chapter to investigate how they can be inserted into the Henderson and Clark (1990) matrix. There are similarities in some of the cases, and they will be discussed in pairs for the most obvious similarities.
7.1 Modular business model innovation

7.1.1 WellPoint and PayChex

WellPoint and PayChex both took a less attractive customer segment, judged by the industry beliefs, and constructed a value proposition to better meet their needs. To support their value proposition they had to change their value configuration as in back-office operations. The sustainability in these two examples lies in the fact that the competitors did not have a business model that supported the economic logic to offer services to the new customer segment.

The change in the business model is first of all the change in the customer segment. They attack a customer previously ignored. This is an act of blue ocean strategy. A blue ocean strategy is to be opposed to a red ocean strategy or ocean full of blood. The blood comes from battles between competitors fighting for marginal market share points. In a blue ocean strategy, a given company will differentiate by positioning right from the beginning on unexplored segments to create new markets and capture new demand instead of joining the red ocean rat race (Kim and Maurborgne, 2002). The value configuration is changed to create economic logic in the value proposition offered to this new segment. This can be classified as a modular business model innovation. A comparison of the Henderson and Clark (1990) definition of modular innovation and the innovation in Wellpoint and PayChex business models illustrates this.

Remember the definition of modular innovation, this is the same definition only I switched product with business model: This type of innovation changes the core design of one or more components but does not change the overall business model architecture. This type of innovation will require new knowl-
edge for one or more components. But the architectural knowledge remains the same. This is a competence destroying innovation since new knowledge of a new component has to be acquired and the knowledge of the replaced component is no longer a valuable asset.

Modular innovation changes the core design of one or more components. This is true for WellPoint and PayChex, they changed the core design of their customer segment and the value configuration to better meet the customer segments needs. This type of innovation does not change the overall business model architecture. This is true, they are still in the same business delivering pay check services and health insurance, but to another sub-segment of the customers. This type of innovation will require new knowledge for one or more components. True, one would need to know the needs of the new customer segment, and new knowledge for back-office operations. The architectural knowledge remains the same. This is true, the business is more or less similar to what the incumbents are doing, the economic logic is just changed. This is a competence destroying innovation since new knowledge of a new component has to be acquired and the knowledge of the replaced component is no longer a valuable asset. The value of the back-office operations used in the competitors of WellPoint and PayChex does not support this type of operations, and hence are the main reasons for not being able to shift to profit from the valuable markets that WellPoint and PayChex tapped into. One could say that the competitors back-office is a valuable asset in the market they already control, but not if they want to profit from the same customer segments as WellPoint and PayChex.

Both WellPoint and PayChex has done a modular change to their business model and that put their competitors in a position where they can not fight back. It is interesting to notice that this also looks similar to a disruptive
business model innovation where less profitable customers over time turn into very profitable, and that they are unprofitable due to the standard business model in the industry. The market positions is held due to the fact that the incumbents are cursed with not being able to shift their business model.

7.1.2 FedEx and Southwest Airlines

Both FedEx and SouthWest airlines changed their value configuration in order to present a higher performing value proposition. When FedEx introduced the hub-and-spoke model to deliver packages over night, this soon become the industry standard also in the passenger airline industry. What SouthWest airlines did was that they stepped away from the hub-and-spoke model being able to operate on direct routes with a no-frill value proposition. When all other airlines become dependent on the hub-and-spoke model, SouthWest saw an open position in the lower part of the value trajectory.

The major change in these two examples of business model innovation is really the value configuration. The value configuration creates the economic logic for a different value proposition than the competitors. Both these innovations can be viewed as a modular business model innovation. When FedEx introduced the hub-and-spoke model the competitors had to gain knowledge about this system and reorganize to compete with FedEx. SouthWest really did the same thing, only the other way around. Competitors, operating with the hub-and-spoke model face great problems changing their value configuration to offer the same value proposition as SouthWest. SouthWest airlines do have similarities with WellPoint and PayChex. They all find previously under served customer segments and with changing their value configuration they end up being able to better serve this profitable pool of customers and create economic logic in areas that previously were thought as not profitable.
Both FedEx and SouthWest airlines have done modular business model innovations.

As discussed under the WellPoint and the PayChex case, also SouthWest and FedEx changed the core design of one or more components but they did not change the overall architecture. This innovation does require new knowledge for one or more components and the knowledge of the replaced component is no longer a valuable asset. If a company wants to go from hub-and-spoke into being a low-cost airline flying direct, they would have to change so much in their business model that they would face organizational havoc.

7.2 Architectural business model innovation

7.2.1 iTunes Store (iTunes) and Dell

Dell and iTunes have some common elements in their business model innovation. Dell changed its distribution channel that enabled them to gain a better economic logic and outperform their competitors on price. This distribution channel is what one refers to as the direct model, skipping the retailers and hence the cut of the share normally wanted by them. This direct model is the same model that iTunes uses when selling music direct to the user over the Internet. They skip retail, and in the future they will also skip the distributors. That leaves them with the same direct model as Dell.

The change in the business model is not similar to what observed in the WellPoint and PayChex cases. Dell and iTunes change the distribution channel. When they do this they skip retail which is really not a competitor, just a sales channel. But in the music industry things work somewhat different than
in the PC industry. While Dell manufactures their own computers, iTunes has to buy copyright material from the music distributors who are responsible for bringing music from record labels worldwide. But when record labels start to use iTunes as their main distribution channel, skipping regular distribution channels, iTunes will be able to profit with a much higher margin and compete with the regular distributors on price. So the innovation in these two business models is really in the distribution channel. This is an architectural business model innovation. A comparison of Dell and iTunes with Henderson and Clark (1990) definition of architectural innovation illustrates this.

First, remember the definition: The essence of an architectural innovation is the reconfiguration of an established system to link together components in a new way (Henderson and Clark, 1990). It is important to notice that architectural innovation does not mean that the components remain unchanged, but they are changed in such a way that it opens up for new ways of linkage between the components. But the change is so small that the core concept behind the changed component is the same, and the associated scientific and engineering knowledge, remain the same (Henderson and Clark, 1990).

Both iTunes and Dell does link components together in a new way when introducing the direct model into an industry where products previous have been distributed in other ways. This thesis does not claim that iTunes was the first to sell music over the Internet, but they embody the store into their well distributed iTunes music software which made them big in short time. Neither Dell nor iTunes has invented the direct model, but they have put together components in a new way. In difference to WellPoint and PayChex, iTunes and Dell has not created a new component such as a blue ocean customer segment, but they have used another, well know, distribution channel.
into industries not to well known with this way of doing business. iTunes and Dell are examples of architectural business model innovations.

7.2.2 Minute Clinic

Minute Clinic has changed most of the components in the business model found on a regular doctor. The customer is a sub-segment of the sick population. The value configuration is provided by low cost nurse practitioners and computer technology to do quick health care. The distribution channel is a retail store located at a shopping mall. There are hardly any similarities to how regular doctors operate. But Minute Clinic does not introduce any new core concepts in their business model. They are an example of an architectural business model innovation.

7.3 Radical business model innovation

7.3.1 Skype

What Skype has done is to combine already existing components to create a whole new architecture on how to do telephony. The user mass was created with a free to download software that allows user to talk over VoIP with P2P technology. The value configuration is changed completely by using components that are put together in a new way offering a value proposition that is somewhat similar to regular telephony.

Skype’s business model establishes a new set of core design concepts embodied in components that are linked together in a new architecture, hence this is a radical business model innovation according to Henderson and Clarks (1990) definition of a radical innovation. Whether or not this becomes the new dominant design of how to do telephony will be a secret kept by the
future. It is a discussion whether or not Skype introduced a new set of core design concepts, they did not invent neither P2P nor VoIP but in the industry of telephony operators, they truly introduce new components in all parts of the business model.

Fig: Business models in the Henderson and Clark (1990) matrix

7.4 General discussion

It is important to notice that Henderson and Clark (1990) states The distinction between radical, incremental, and architectural are matters of degree. The intention is not to defend the boundaries of a particular definition, particularly since there are several other dimensions on which it may be useful to define radical and incremental innovation. The use of the term architectural innovation is designed to draw attention to innovations that use many existing core design concepts in new architecture and that they have
a more significant impact on the relationships between components than on the technologies of the components themselves. The matrix is designed to suggest that a given innovation may be less radical or more architectural, not to suggest that the world can be neatly divided into four quadrants.” But what this thesis suggests, is that there are different degrees of business model innovation, just as there are different degrees of innovation in products.

An interesting study would be to investigate hundreds of business models, classify them after the Henderson and Clark (1990) matrix, and tell something about the performance and what their business model innovation did to the industry that they operated in and their competition. Due to the limited information presented in this thesis there are many things that are not looked into. For instance, there is clear evidence that Dell now face a great deal of threat due to the competitors capability of bringing their own prices down without depending on the direct-model. Dell has had a competitive advantage for years, but after HP bought Compaq, they are capable of driving prices down. And SouthWest airlines have gotten many competitors, and there are evidence that they now try to climb higher on the value trajectory and even included a business class to some of their routes, to get more profits in the fierce competition. What would be interesting to prove is how different types of business model innovation hold their competitors at distance, and for how long. This thesis can not say anything about performance and the competitive strength of the different kinds of innovations, but this could maybe be discovered by investigating more business models over time and measuring their performance. The degrees of innovation can also be applied to performance. Focusing on the importance of technology novelty for performance, Shane (2001) shows that the more radical the innovation used to exploit technological opportunities, the greater the probability of firm formation. Gatignon et al. (2002) find that the more radical, more
competence changing, and more oriented towards generational expansion a product innovation is, the greater the innovation’s commercial success will become. This could though be interesting to do in further research.

Another aspect that is important for me to outline is the fact that Henderson and Clark do try to classify product innovations. And despite the fact that both products and business models can be described as modular systems with linked components, they are indeed two very different kinds of modular systems. What is true for products does not have to be true for business models.

There is also a weakness in how to define the overall architecture of a business model. For a product it is more obvious to understand what it is. For example a home telephone has a different overall architecture than the cellular phone. But with a business model that is a much more complex task to do, since it often can be difficult to get an overview over what exactly a company is engaged in, and how they do it. If one wants to look at the business model one could compare it with business models in the same industry or in every industry. For example, the direct model of Dell was first introduced by Dell in the PC industry, but it has occurred in different contexts and industries before.

It is reasonable to point out that the business models investigated in the cases have done many other types of innovations than those being weighted in this thesis. FedEx is not a world leading company just thanks to the hub-and-spoke model, but thanks to their capability of constant innovation to better meet customer needs. The reason for the narrow point of case analysis is due to the complexity of these large companies. This thesis has strictly outlined some of the most important business model innovations to better
answer the research question.

It is worth mentioning that every single business model investigated in this thesis has changed its value proposition. From this it can be stated that every change in a company’s business model is all about customer value. Value propositions are being changed to better meet the customers’ demands, or give them something they did not know they wanted. If the value proposition is changed for the better, and customers get more satisfied, and the economic logic is for the benefit of the shareholders, then the business model is valuable both for the shareholders and the customers. It is really all about giving value to the customers.

Technology seems to be involved in all the cases investigated. Minute Clinic uses computer technology to provide a fast health check as PayChex does to provide smooth paycheck operations. Skype obviously is all about technology. Low cost airlines like SouthWest uses computer technology to fill their jets and so does FedEx. Dell and iTunes use the Internet to distribute their products, and WellPoint uses technology to serve individuals with services before only available for large groups. Observing this makes it tempting to conclude that opportunities for business model innovation are always unlocked by some sort of technology, even though it takes some time before anyone grasps that opportunity.

If it is true that the Henderson and Clark (1990) can apply for the business model concept, which this thesis suggest, then this could also be true for other product innovation - and product innovation management theories.

Regarding the components of the Osterwalder (2004) ontology, it is tempting to say that some of the components are indeed more important for the busi-
ness model than others. The Value Proposition is changed in every business model innovation, hence is an important component. The target Customer and the value Configuration are also components that holds great deals of change potential and should be weighted much attention. These three components are the who, the what and the how of a business, and as discussed, they come from strategy. Other components are less important. The case analysis did not use the Cost Structure once to prove an innovation. It is tempting to say that the business model could be better of with less components. The component Sustainability is however a component that felt missing during the case analysis. This component would focus on the parts of the business model, compared to the competitors that makes it sustainable.
Chapter 8

Conclusion

The research question was to find out if these examples of business model innovations can be classified in the same way that Henderson and Clark (1990) classifies product innovations, and if they can, what can be said about business models and innovation in the business model due this classification?

This thesis has found different kinds of innovations in the business model. WellPoint and PayChex seem to have build their business model around a new customer segment to profit from an untapped source. iTunes and Dell have found new ways of distributing their products to the same customers. FedEx and Southwest found new ways of creating economic logic in their value configuration and so on. This clearly opens up for the possibility to classify degrees of innovation, which this research has proved.

This study has proven that business models can be classified after the Henderson and Clark (1990) matrix, but to show how each classification is performing would demand a more in-depth research where more business models are classified and more details about them retrieved. But what this thesis has shown is that there are indeed different types of business model innovation,
some that counts for major changes in almost every component, like Skype, and relatively minor changes to some components but a great deal in others, like Dell.
Bibliography


