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# Creation and Implementation of a New Business Model: a Disarming Case Study

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## ABSTRACT

The purpose of this article is to show through a case study the inherent difficulties in creating and implementing a new business model in an existing firm. This research is based on a study of Valtis, a French security transportation firm whose CEO helped to introduce onto the market an innovative system based not on securing goods but on removing temptation: money is no longer carried in armored vehicles but is placed in secure containers, transported by unarmed men traveling in unmarked cars. The article shows that as well as demonstrating technological innovation, this is in fact a radically new business model. It also highlights the double loop learning needed to create it and also the difficulties encountered when two business models (the old and the new) coexist during and after the strategic experimentation phase. More generally, the article aims to show how the notion of the business model opens up the question of strategic regeneration.

**Key words:** business model, strategic regeneration, innovation, double loop learning

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## INTRODUCTION

The term “business model” was first used in the context of data and process modeling (Osterwalder & Pigneur, 2005), and it became the established expression among those working in the emerging new technologies sector at the end of the 1990s, before extending exponentially to managerial and academic spheres. Even though the definition remains a little vague, this term is widely used today, even in the area of corporate social responsibility (e.g. see Thompson and Mac-Millan, 2010; Yunus, Moingeon & Lehmann-Ortega, 2010). There has been considerable research into the origins and definitions of the term (Baden-Fuller & Morgan, 2010; Teece, 2010; Casadesus-Masanell & Ricart, 2010; Zott & Amit, 2010), with the most recent studies dealing with the emergence and introduction of new business models (Demil & Lecocq, 2010; Johnson, Christensen & Kagerman, 2008; McGrath,

2010; Wirtz, Schilke & Ulrich, 2010). Doz and Kosonen (2010) in particular have looked at the evolution of business models in existing firms, which have resulted in streamlining and strategic renewal: on the basis of a dozen cases studied, they have produced strategic recommendations aimed at company managers wanting to renew their business model.

However, these authors have not analyzed in detail the specific difficulties that firms can experience when a radically new business model appears, difficulties associated with managing the old and the new business models simultaneously. This is precisely what this article hopes to address: to show the difficulties inherent to the creation and the implementation of a new business model in an existing firm.

Our approach is above all exploratory (Yin, 1994); it is not our intention to validate a specific research proposition but rather to confirm the usefulness of the business model concept in the context of strategic renewal. Against a backdrop of emerging theories, which is the case for the business model, Edmondson and McManus (2007) recommend a qualitative approach. The case study would therefore seem to be the most appropriate methodology to serve our purpose. Our research is based on an in-depth study of Valtis, a French security firm dealing with the transportation of cash.

This activity involves ensuring the safe transfer (collection and delivery) of cash (coins and notes). Traditionally, money is carried in armored vehicles, occupied by three armed men. Attacks against such vehicles injured 37 people and caused the death of 15 security guards in France between 1996 and 2002. Faced in 1984 with the difficult task of informing a woman of the death of her security guard husband, Philippe Regnier, CEO of Valtis, decided that he could not remain in this profession unless he could find a way of radically reducing the inherent risks.

To this end he helped to introduce a new courier technology onto the market, developed by the company Axytrans (in which he also happens to be a shareholder) and based on removing the element of greed. Axytrans produced a system of secure containers, transported by unarmed men traveling in unmarked cars. If any kind of incident occurs along the route originally designated by the computer system, a pyrotechnic device dyes the notes in two thousandths of a second.

The transportation of money is considered by French authorities to be a sensitive area of activity and this sector and all those working in it are subject to strict legislation. In 2003, the Axytrans system, although representing almost 40% of the market, was only entitled to exemption in certain cases. In this very concentrated market, only a few competitors have adopted the container scheme, splitting the industry into two factions, both involved in intense lobbying to defend their point of view with the Interior Ministry.

This article reflects research methodologies based on a process of abduction, and is structured in a form of dialogue between theory and empirical illustration. First, we show the contrast between the traditional business model in the cash-in-transit sector, based on the use of armored vehicles, and the new business model which uses the Axytrans system. To do this, after presenting the methodology of the research

(part 1), we start with an analysis of the literature which gives us a definition of the business model (part 2) before outlining the innovative features of the Axytrans business model (part 3). Having determined that it is indeed a new business model, we then study any constraints in the process before it became successful (part 4), and the difficulties that resulted from its implementation (part 5).

## METHODOLOGICAL BASIS OF THE RESEARCH

Our study data consists of both secondary sources (annual reports of firms in the same sector and press coverage for the period 1996 to 2008<sup>1</sup>) and two types of primary sources. The first type consist of a detailed financial analysis of Valtis covering the period 1990 to 2005, which enabled us to establish the specific profitability of each business model and how this evolved over time. By breaking down the data in this way, we were able to look in great detail at the firm's accounting and financial history and understand the impact of the creation and implementation of the new business model on the financial plan. In addition, a detailed study was made of the investments needed to set up the Axytrans system, and this revealed an amount comparable to that required for security transportation in an armored vehicle.

The second type of primary source are interviews. Ten interviews were carried out, totaling almost 30 hours (see details in appendice 1). Spread over two years, they were semi-directed and our interview guidelines evolved according to the date of the interview and the level of detailed information obtained. All the interviews were transcribed. Interviews as a data source do have limitations. When questioning about specific situations we are dealing with personal experiences, and hence with the memory of the person being interviewed, with perhaps retrospective rationalization and the risk of a collective reconstruction of the past. It is also possible that those interviewed have a biased or incomplete representation of the people around them. However, the large number of people interviewed and the financial analysis already mentioned did enable us to compare opinions and facts, and thus ensure accuracy through triangulation.

The Valtis case study forms part of a broader piece of research into innovative business models, which has an influence on the present article in two respects. First, the assessment of the innovativeness of a business model was carried out on a theoretical basis, drawing on the existing literature, and the case of Valtis enabled us to test this tool in the field. We therefore collected and analyzed data according to the assessment tool suggested. Second influence, the literature pertaining to innovative business models, which we knew from our field approach, enabled us to "make sense of empirical observations by going back and forth repeatedly between the empirical material we had collected and the theory" (Charreire & Durieux, 1999, p.70), and this typifies the abductive procedure. This constant confrontation between the field and literature brought out new questions, giving rise to more interviews.

1. The press review is from the Factiva database and included 73 articles of more than 200 words.

All the primary and secondary data were analyzed according to thematic content, which facilitated the task of comparing different sources. The topics identified covering the specific features of the creation and the introduction of the new business model were used to structure parts 4 and 5 of the article: challenging the prevailing mental scheme and strategic experimentation.

## A PROPOSED DEFINITION OF THE BUSINESS MODEL

We hope to identify whether the introduction of the Axytrans technology constitutes a radically new business model for Valtis. This requires a workable definition of the business model, which we obtain by reviewing the existing literature on the subject.<sup>2</sup>

2. The table in Appendix 2 gives a list of definitions to be found in this academic literature, in chronological order.

### Critical review of the literature

Basically, by analyzing the different components proposed by the authors, we were able to distinguish three groups of authors. The first (Chesbrough & Rosenblomm, 2002; Porter, 2001) are interested in the appropriation of value by the firm, focusing on the financial dimension. In this first instance, the business model is assimilated to what is sometimes called the «revenue model». This notion is often found in the managerial world, as highlighted by Amit and Zott (2001). Thus many websites describe different revenue models, such as the advertising model, or “razor and blade”<sup>3</sup>, which thus reduces the concept of the business model to the simple mechanism of revenue appropriation by a firm. This conception appears to us to be too restrictive, for two reasons. The first is that over and above the origin of the revenue, it is the profit, hence the firm’s economic profitability, which would seem to be relevant, as Fiet and Patel (2008) make clear. In addition, Amit and Zott (2001) clearly distinguish between revenue model and business model. While the first describes the appropriation of value, the second is interested in the creation of value, in other words, how the value is generated. This conception seems less restrictive and seems to make the revenue model a component of the business model.

3. Razors and blades: consists of selling the initial equipment cheaply and making profits through the sale of refills (e.g. Polaroid).

A second group of authors (Mason & Leek, 2008; Patzelt, zu Knyphausen-Aufse & Nikol, 2008; Tikkanen, Lamberg & Parvinen 2005) are particularly interested in the value generated through a company’s operational methods, with or without explicit reference to its value chain. Thus, Amit and Zott (2001) define the business model as the organization of the different transactions of the central firm with all its constituent external elements. However, these authors explicitly exclude clients and products from the business model, stating they are taken into account in what they call the market strategy (see table 1 page 5 of their article).

A third group of authors do include clients and products in the business model. Whereas for Slywotsky (1997) the client is the pivot, for Stähler (2002), Lecoq, Demil & Warnier (2006) offers made to clients are only one component among so many others.

## A proposed definition

On the basis of this analysis of the literature, we propose a synthetic and consensual definition of the business model built around these three components:

### The value proposition which includes:

- The type of client or the market segments that the firm is targeting;
- The product and/or service offered to the client.

The value proposition describes the “what”, in other words the attractiveness of the offer, the products and/or services that the firm can bring to the client. Client is understood in the widest possible sense. It does not correspond simply to the one who pays, but refers to all the actors who derive benefit from the value proposed by the firm.

### The value architecture which includes:

- The firm’s internal value chain, according to Porter’s interpretation (1985);
- The value network (Brandenburger & Nalebuff, 1996), in other words all the links with suppliers, partners, etc. This is the part of the value creation that is carried on outside the company.

We call this component the value architecture by analogy with the value chain. It is defined as all the tasks put into action by the firm to finally deliver the value proposition to the client. It describes the “how”, or the way in which the firm “produces” the value proposition for the client based on its portfolio of resources<sup>4</sup>. Thus the internal value chain depicts all the stages carried out by the firm itself to reach the stage of being able to deliver the value proposition to the client. As for the value network, it brings together all the partners (suppliers, sub-contractors, distributors, etc.) involved in this same process.

### The profit equation<sup>5</sup> which includes:

- The value acquired by the firm, to account for turnover;
- The structure of costs and capital employed, which reflects the value architecture;

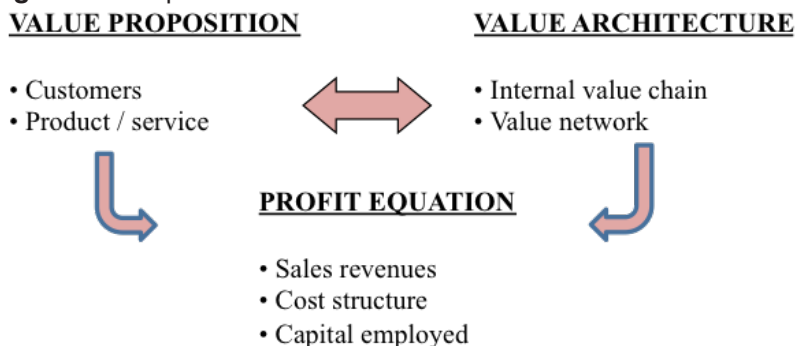
We propose to call this third component, the combined result of the two previous ones, the profit equation: this specifies the origin of the profitability by associating income, costs and capital employed. It is our intention that this term should be clearly distinguished from the revenue model so as to focus primarily on economic profitability (defined as the return on capital employed) as a measurement of profitability. Indeed, the profit equation is the result of the two previous components of the business model, of which it is the financial representation<sup>6</sup>. Turnover derives from the success of the value proposition with the clients, and the market share achieved by the firm. The structure of costs and capital employed are the result of decisions made for the value architecture. Thus in the business model the firm’s finances are an abstract concept; it analyzes only the cycles of exploitation and investment.

These components are represented in diagram form in **Figure 1** below.

4. For Demil and Lecocq (2008), resources are one component of the business model. However, in line with Ray et al. (2004), we maintain that the value architecture is based on the implementation of the firm’s resources. In this way, resources are included in the value architecture.

5. Term that we propose to refine our understanding of the term revenue model.

6. The profit equation measures the coherence of the other two components, which should result in profitability (Shafer and Linder, 2005). This coherence, presented here in financial terms, can be understood in a different way, in particular for NGOs or in the case of free software, where profit can be defined as the ability of the network to attract new users and encourage them to participate.

**Figure 1:** Components of the business model

The diagram suggests that the first two components should be complementary and consistent one with another so as to ensure profits for the firm that uses this business model. The advantage of such complementarity has been demonstrated by Zott & Amit (2008). Our definition of a business model is taken from the list of these components.

A firm's business model is the description of the mechanisms enabling it to create value through:

- the value proposition made to the clients,
- its value architecture,

and to harness this value in order to transform it into profits (profit equation).

Thus the business model emerges as a unit of analysis integrating different paradigms which coexisted until then in the field of strategy: Porterian analysis, the resource based view (RBV), the theory of transaction costs, entrepreneurship (Amit & Zott, 2001). It also serves as "an intermediate construct linking the technical and economic fields" (Chesbrough, 2003 : 69) by associating financial elements with strategic choices. These characteristics make it an innovative and highly relevant tool for analysis.

Using this definition, which is at once consensual and also provides a good operational synthesis of existing definitions, we are able to assess whether the introduction of Axytrans technology corresponds to the introduction of a new business model.

## **THE INNOVATIVENESS OF THE BUSINESS MODEL INTRODUCED BY VALTIS**

In this second part, our aim is to use the definition proposed above to study the case of Valtis and to assess whether adopting the Axytrans innovation can be said to be the equivalent of a new business model (compared with the one that exists in the security transportation industry).

### **The innovativeness of the value proposition**

The value curve proposed by Kim and Mauborgne (2005) can serve as a tool to analyze changes in the value proposition. It "represents in a diagram form the firm's performance relative to all the criteria on which competition depends in their sector" (p. 33). This tool seems to us to be

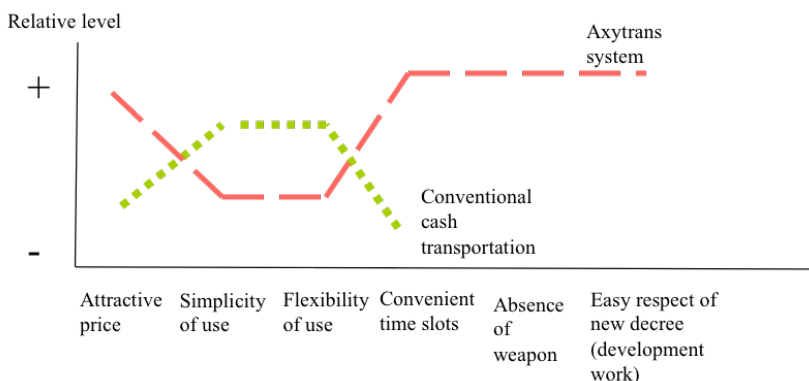


well adapted to use as an approach to evaluating the degree of innovativeness, as it shows the characteristics of the different value propositions on the same graph. Using the value curve diagram we conclude that a modification is radical when the criteria creating value in the eyes of the client have been very much reduced, strengthened, or even suppressed or created.

The introduction of the Axytrans system by Valtis changed the decision-making criteria for the sector as a whole. Indeed, Valtis decided to opt for leasing equipment to clients rather than selling, and thus the clients did not need to invest in the new system. Ultimately, the cost to the client is less than if he used the traditional security transport system with an armored vehicle. The reason for this is that an unmarked car is used instead of an armored van, requiring only one security guard (compared with three for the traditional route). But apart from cost, the Valtis clients are able to benefit from new criteria: the absence of weapons means that the entire operation is more discreet, something that is very much appreciated by some clients who balk at seeing armed men at their place of business. In addition, the Axytrans system introduces flexibility: since a special compartment is used, the couriers can deposit or pick up cash even when staff (and therefore clients) are not present, before or after opening hours. Finally, by adopting the Axytrans system, firms were able to avoid carrying out development work before the end of 2002, work that was imposed by a decree of December 2000 following the massive strikes in May 2000. The purpose of these strikes by cash-in-transit security guards following several fatal attacks was to protest against their working conditions and the fresh upsurge in violence of which they had been victims. The introduction of Axytrans is comparable to a Blue Ocean strategy (Kim and Mauborgne, 2005) which consists of offering a new business model constructed around new criteria not previously identified.

The value curve for the Axytrans System when it appeared on the market, i.e. compared with traditional cash-in-transit methods using armored vehicles, is shown in **Figure 2** below:

**Figure 2:** Comparison of value curves for Axytrans and traditional cash-in-transit with armored vehicles



Thus the Axytrans system has indeed introduced a radical change into the value proposition for the client, as all the criteria considered have been radically altered.



## The innovativeness of the value architecture

This assessment should be carried out from the perspective of changes that have occurred in the company and its partners in the broadest sense. Lehmann-Ortega (2006) suggests, on the basis of an analysis of cases cited in the literature, that the innovativeness may derive from the creation or suppression of several activities in the chain, a change in the order of activities, and/or changes to several activities. An activity is a basic component of the value chain (e.g. internal logistics, production, technological development), according to the accepted meaning given by Porter (1985).

The portable containers are equipped with an electronic locking system, placed in a pre-programmed vehicle and constantly monitored from “central control point”. These unmarked vehicles are specifically designed to hold the special containers; these are small suitcases made of black polyethylene which can contain between 2,700 and 7,000 notes depending on the model. Inside, another section made of composite material is equipped with sensors and an electronic card. Before each round, the container records information such as the amount being transported and the delivery destination. When it reaches the delivery point, the container can only be opened by the ordering party (bank, store, etc.) who has a personalized chip card, and uses a personalized code. When an incident occurs (delivery time exceeded, unauthorized pick-up, attempt to open by force, ...) this is observed by the central control point, a pyrotechnic system causes small bottles of indelible red ink to break, and in two thousandths of a second they dye more than twenty-five per cent of the surface of each banknote.

**Table 1** below, shows each of the three changes to links in the value architecture chain that are defined as being radical:

**Table 1:** Elements justifying analysis of the value architecture of the Axytrans system

General radical characteristics	Present when using Axytrans
Creation or suppression of several links	Creation of links: <ul style="list-style-type: none"> <li>• Reception stands and possibly special compartments installed in the client's premises</li> <li>• Staff trained in the client's premises</li> <li>• Rounds and containers programmed on computer</li> </ul>
Change in the order of links	• No occurrence <sup>7</sup>
Change in several links	<ul style="list-style-type: none"> <li>• Round is carried out by one man instead of three</li> <li>• Round is carried out in an unmarked car and no weapons are involved</li> </ul>

7. In the case of Valtis, the order of the links is not changed; in other cases, the innovativeness of the value architecture may come from such a change (as in the example of Benetton who dyed their sweaters instead of dyeing the wool). As we want this tool to be generally applicable, we decided to add this possibility in the table.

The innovative aspect of the value architecture can be explained only by the change in the processes between the client and Valtis. This is a major change, however, as it requires special stands to be installed beforehand on the client's premises and also staff training. Moreover, these processes have been greatly modified by the introduction of the Axytrans system, which relies entirely on the computerization of the delivery rounds. The courier is not in contact with the cash. The system

gives him the list of clients he must deliver to and only tells him when he reaches the destination which container to deliver.

The Axytrans system has therefore also brought a radical change to the value architecture.

### A positive profit equation

The coherence of the value proposition and the value architecture has to result in a positive profit equation. In order to show how the changes brought in by Axytrans translate financially, we analyze the growth in the firm's turnover, both in terms of prices and quantities. Moreover, the changes to the value architecture result in a specific structure of costs and capital employed. **Table 2** below shows these analyses for the Axytrans System:

**Table 2:** Analysis of profit equation for Axytrans System

Component of profit equation	Evolution	Elements justifying the analysis
Turnover	Prices	Fall Low prices are inherent in the Axytrans offer
	Quantities	Rise Increase in volumes since new clients have been reached, especially those wanting to avoid having security work done (work that became compulsory under the 2000 decree)
Unit cost of delivery round	Fall	<ul style="list-style-type: none"> <li>• 1 person instead of 3</li> <li>• Unmarked vehicle, not only cheaper to purchase but also cheaper per kilometer than an armored van</li> </ul>
Capital employed	=	Costs equivalent between cost of an armored van and equipping an unmarked vehicle with the Axytrans system
Margin (%)	Rise	The gain is partly redistributed to the client in the form of reduced prices
Margin (value) <sup>8</sup>	Rise	The margin is higher in terms of value, with the combined effect of volumes and % margin

The decision by Valtis to lease equipment to the client rather than to make the client purchase it did have a considerable effect on the amount of capital employed. Valtis' reasoning was that they wanted to sell a service, not the equipment, and this would allow the firm to retain control of one of the key links in the value chain. Thus the containers belonged to Valtis, who bore the brunt of the investment, in exchange for a multi-annual contract with the clients. A comparative study has shown that investment associated with getting the Axytrans system off the ground (information system, containers, vehicles) was equivalent to that required for transportation in an armored van<sup>9</sup>. This cost is borne entirely by Valtis. Profits from the new business model are thus based above all on costs, and not on capital employed.

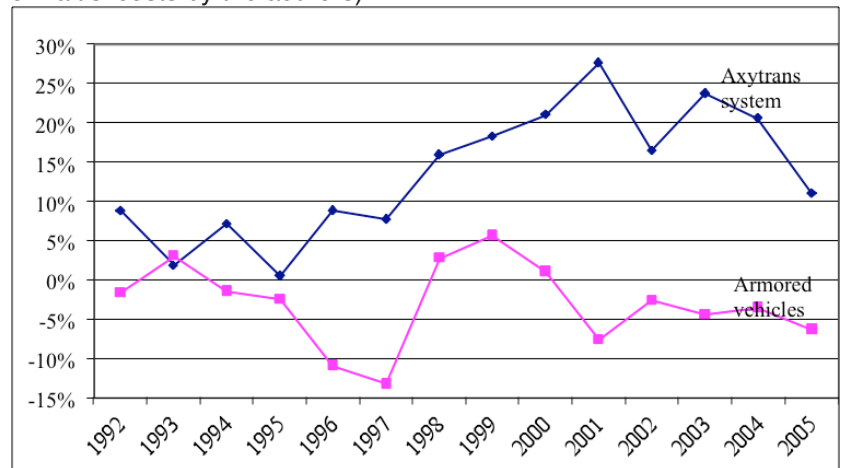
Thus the analysis of Valtis' finances shows that the operating result from Axytrans was much higher than with the armored vehicles<sup>10</sup>, mainly because of the impact of staff costs (see **figure 3 and 4**):

<sup>8</sup>. Defined as the return on capital employed, i.e. in this case margin / capital employed.

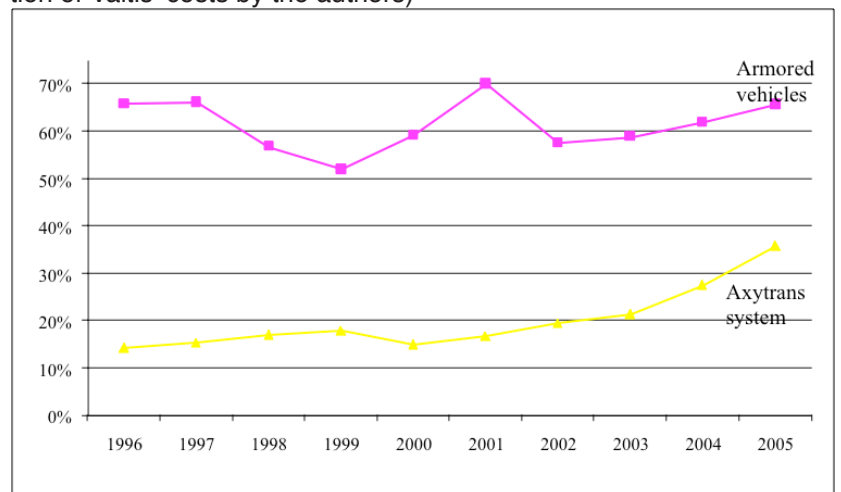
<sup>9</sup>. An armored van costs about €100,000

<sup>10</sup>. See paragraph 5.2. for the reasons why armored vehicles were retained

**Figure 3:** Evolution in EBIT / Turnover at Valtis (source: decomposition of Valtis' costs by the authors)



**Figure 4:** Evolution in staff costs as % of turnover (source: decomposition of Valtis' costs by the authors)



Ultimately, evaluation of the three components suggests that the Axytrans System did indeed lead Valtis to introduce a new business model, as it was based on a radical modification in both the value proposition and the value architecture, giving rise to a positive profit equation. In this respect, this new business model can be described as a strategic innovation, defined as the introduction of a radically new business model (Charitou & Markides, 2003; Govindarajan & Gupta, 2001; Hamel, 1998; Moingeon & Lehmann-Ortega, 2006; Schlegelmilch, Diamantopoulos & Kreuz, 2003; Tucker, 2001).

We have shown that the introduction of the Axytrans system gave rise to a new business model in cash transportation services; we will now go on to describe how it went on to develop.

## **RAPID GROWTH OF THE NEW BUSINESS MODEL**

Research into the business model often looks at how the term is defined or, in a more managerial approach, at recommendations to those practicing in the field about how to develop. Few studies have taken a dynamic view and looked at the processes leading up to its rapid development. The case of Valtis has enabled us to gather a great deal of information, allowing us to understand this process in detail, both its origin and its implementation, and then to throw light on the subject by applying theory.

### **Creation of the new business model**

The case of Valtis clearly illustrates the need for an existing firm to reconsider the prevailing rationale in their sector so as to be able to devise a new business model.

#### **The various resistance factors**

It was in 1973 that, within the family firm "Transports Monts-Jura" (a transportation company carrying people and goods), Philippe Regnier himself created a new activity (which would later take the name of Valtis) dedicated to the transportation of cash. In the mid-80s, when one Valtis employee lost his life, one of Philippe Regnier's friends, who produced checkbooks, had some problems with hijacking: he wanted to use Valtis armored vans to ensure the safe transportation of his goods. However, the costs of this service seemed to him to be prohibitive. Philippe Regnier explained:

"So we asked ourselves, 'how can we eradicate temptation?'" (...). The goods being transported would have to be damaged in some way, and, critically, with no human intervention; this was so that hostage-taking could not be used as a ploy to prevent the goods being dyed. Then we realized that checkbooks were just a very small part of the transport of valuables. By far the majority of valuables that are transported are banknotes. And banknotes can be stained too, just like checkbooks. So it was from there that we started a small company which we called Axytrans, a 51% subsidiary of my friend's company and 49% of my own security transport company. This was in 1984".

However, this simple principle - the removal of temptation, leading to the suppression of weapons - quickly encountered resistance from other companies in the cash transportation sector, especially Brink's. The French Brink's subsidiary is one of 650 subsidiaries of this American group founded in 1859, operating in over 50 countries and with a turnover of \$1.7 billion in 2003. This firm is the co-leader on the French market, with Valiance, and each firm has over 40% of market share, with the remainder going to SMEs operating locally, of which Valtis is one. Brink's is also the most profitable, mainly because it is particularly well established in major cities. This is a very structured company, and the CEO, formerly at IBM, has declared that he has every intention of remaining number 1 in this very concentrated market.

Through him, the whole of Brink's is violently opposed to any form of new technology, for two main reasons. The first is financial. Brink's owns 650 armored trucks and has employed massively in renewing its

fleet. The company has contributed to sector concentration by buying up other companies operating with armored vehicles. It has recently created new protected centers (where cash is handled), organized around armored defense. If it were to be established, new technology could totally wipe out the value of all this investment, which until now created a barrier to newcomers entering the business. By bringing down these barriers, the Axytrans system would let in newcomers to compete with them. Worried about the reduction in the labor force as a result of the introduction of the container system (which requires only one man instead of the three needed in an armored vehicle), security guard labor unions joined forces with the Brink's board to lobby local authorities and protest against the new technology. Both were concerned that the job of security courier would become obsolete. As one union member said scathingly, "Well in the end, since there's to be no one armed, why not use a simple delivery truck? Then the guy that's delivering a refrigerator can just stop off [during his round] to deliver some cash! Since there's no longer a weapon, there's no more aggression, there's nothing left at all: it's become just an everyday product". Negotiations with the authorities after the strikes in 2000 resulted in the "totally armored" model being adopted even more stringently. This first reason for Brink's opposition to the Axytrans system was therefore a rational one: Brink's wanted to preserve the market in which it was leader and their resistance was clearly calculated to protect the interests of the firm (Piderit, 2000).

The second reason for Brink's opposition was ideological and "dogmatic", according to a former manager: the French subsidiary shared with its parent company an «American-style» vision of security transportation based on the use of armored vehicles and weapons. This type of cognitive block, identified by Chesbrough (2010) as a major barrier to innovation in relation to business models in existing companies, is explained in the literature as resulting from the rigidity of the prevailing mental scheme. Mental scheme<sup>11</sup> filter information so as to prevent data overload and intolerable levels of uncertainty. Hill and Levenhagen (1995) have shown that by acting as a filter, mental scheme are able to bring about faster and more reliable decisions, more appropriate behavior, better forecasting and control of the environment and also increased efficiency in carrying out professional tasks. Also, due to their stability, mental scheme can help managers avoid inappropriate reactions in response to crises that are ultimately perceived as short-lived (Gordon, 1991). Hamel and Prahalad (1994) have called the mental scheme shared by an entire sector of activity "industry orthodoxy", which is still the term most commonly used, a synonym for other expressions such as "industry recipes" (Spender, 1989), "strategic framework in industry" (Huff, 1982), "sector recipes" (Baden-Fuller & Stopford, 1994) or more recently "conventional wisdom" (Kim & Mauborgne, 1997).

A well-known study in this field is that by Porac *et al.* (1989) on the Scottish knitwear industry, which shows that a restrictive definition of the competition meant that strategies were concentrated on their own close environment, causing them to focus on competition from within their group of Scottish companies. A generic recipe (Huff, 1982) seems

11. Synonyms for "mental scheme" are: "belief structures" (Fiske and Taylor, 1984), "mental models" (Senge, 1990), "causal maps" (Schön, 1983). We decided to use the term "mental scheme".

to have emerged from viewing the competition in this way: any alternative strategic option was rejected. A similar case has been discussed by Yates (1984) in a study of the American automobile industry and its "Detroit mindset", which led American auto manufacturers to underestimate the impact of Japanese manufacturers, as they were focusing their attention on competitors in the Detroit region. The analogy with the American automotive industry was also alluded to in an interview with Philippe Regnier. In the end, we gradually reach a convergence in competitive practices that are considered to be «effective» by companies in the sector. Managers amass prejudices as to what is suitable for the sector and what is not, and they are no longer able to question its validity, and the result is a single way of thinking, specific to the sector. In the cash transportation sector, transportation in armored vehicles is the reference model.

However, while mental scheme play a positive role in routine situations, by acting as a filter, allowing information to be processed and decisions to be taken in a straightforward way, they have also been extensively studied in the literature in terms of their negative aspects (Klimosi & Mohammed, 1994). Those with mental scheme that are too rigid and fixed in fact have a skewed and impoverished view of the world and so are limited in their ability to interpret information in non-routine situations. The danger is that if mental scheme are never questioned, but are accepted as "truth" this will ultimately block the person's perception of the world and lead to resistance to change and missed opportunities (Edmondson and Moingeon, 2004). A dangerous cognitive stability may result which may undermine the company's ability to adapt (Barr, Stimpert & Huff, 1992) and limit creativity. In this case, managers all tend to do more or less the same thing; they persist in their mental scheme. So here, this means "yet more armor plating and yet more weapons" which is presented as the solution to problems of attacks: the actors in the sector are trapped in their fixed way of looking at their activity. This is what Christensen (1997) calls "the innovator's dilemma": disruptive innovations are thus in conflict with the prevailing logic.

For those working in the sector, committing to a radical innovation logic frequently means rethinking decisions that may have been made in the past and making significant changes to their mental scheme. The tendency to conform to the prevailing logic and prefer the status quo can be explained by the existence of defensive routines (Argyris, 1993).

#### **The difficulty of questioning prevailing mental scheme**

In order to adapt to change, an individual, a group of individuals or an organization must learn new ways of doing things and question acquired automatisms (Argyris & Schön, 1978; Bettis & Prahalad, 1995; De Holan, Phillips & Lawrence, 2004; Hedberg, 1981; Nystrom & Starbuck, 1984). When we are looking at an innovation strategy, the firm has to reconsider a number of basic hypotheses, directive values, pre-suppositions on which it has based its operations until now. This unlearning of automatisms is the reverse process of learning: disrupting knowledge by breaking up routines, changing structures and managing cultures in order to dismantle learning that is deeply-rooted. Previous success is of course a powerful disincentive to challenging what is in



place (Audia, Locke & Smith, 2000; Gordon, 1991; Hamel & Prahalad, 1994). Key organizational abilities, developed when applying the old business model, can thus become «rigidities» when developing the new one (Leonard-Barton, 1992; Christensen & Overdorf, 2000). It can sometimes be more difficult to unlearn than to learn.

This dynamic which leads us to reconsider a certain number of basic premises constitutes double loop learning (Argyris, 1977; Argyris & Schön, 1978), or second-order learning (Lant & Mezias, 1992). In contrast with single loop or first-order learning, which consists of modifying strategies within an existing frame of reference, this type of learning forces the organization to transform its fundamental codes of reference in order to adopt new ones. Hence single loop learning would mean dealing with the problem by applying the usual solutions, in this case, increasing the use of armored vehicles and weapons. Double loop reasoning would consist of finding a new response to the problem of attacks, in this case, security cases.

In the case of Valtis, as a result of a very traumatic event experienced by the CEO, he began to view his sector in a different light. Embarking on double loop learning is not easy for someone well-established in their sector. It should be noted that in Philippe Regnier's case, his company did not have a history rooted in the armed security culture as was the case for a group like Brink's. And so the CEO of Valtis and co-founder of Axytrans embarked on double loop learning by questioning the principle of dissuasion by using weapons. In this way he was able to bring in the new business model.

## The implementation of the new business model

Before being used throughout the sector, the new business model was first tested locally at Valtis, using what is known in the academic literature as strategic experimentation.

### Testing the business model at Valtis

Created in 1984 and employing five engineers, Axytrans was on the brink of bankruptcy in 1991: despite €1.5 million employed, the technology was still not working as it should. The company survived thanks to a capital injection from Alcatel. In 1994, the system was beginning to be operational, and that year the firm passed into the hands of the company François Charles Oberthur<sup>12</sup> which had bought out the firm belonging to Philippe Regnier's business partner. This period when the technology was being brought up to date was particularly slow, but Philippe Regnier, who remained a minority shareholder, persevered. Without his stubbornness over the project, Oberthur would probably have abandoned this subsidiary that they had acquired during the takeover. By creating a separate company to develop this technology, as recommended by Christensen (1997), Philippe Regnier certainly made a wise decision.

The first use of the prototype dates back to 1992. Valtis first chose the Department of Haute-Saône to set up operations, an area acknowledged to be "calm" (few attacks on trucks). This initial test enabled the company to perfect the system. From 1997, date of the provisional

12. Oberthur is number one in the world for printing banknotes, lottery tickets, passports with an electronic chip and producing credit cards, with a turnover of €430 million in 2003.



agreement with the Interior Ministry, three regional banks signed up for the system to be used across 300 sites. This series of tests corresponds in the literature on introducing a new business model to what is called «strategic experimentation».

### **The role of strategic experimentation**

Strategic experimentation appears in the academic literature as a specific form of knowledge acquisition. In the «traditional» strategic procedure, learning occurs in the preliminary phase of the diagnostic process: analyses, studies and research carried out during this preliminary phase result in strategic decisions set out in the form of a plan. However, the fundamentally innovative nature of strategic innovation means that simple market studies or interviews with clients in the context of statistical studies are of little relevance or use, as they are not able to be projected into this new project (Gilbert, 2003; Kim & Mauborgne, 1999; Moingeon & Métais, 2000). Learning therefore has to come via a different route, which may be strategic experimentation (Slocum Jr. & McGill, 1994; Govindarajan & Trimble, 2004). This can be defined as the test for new business models, which are likely to be used as vectors of growth for the future. Whether they call them experience portfolio (Hamel & Valikangas, 2003), strategic options (Courtney, Kirkland & Viguerie, 1997), record of experience (Thietart, 2000), population of multiple strategies (Beinhocker, 1999), continuous experimentation (Markides, 1998) or simply experimentation (Goh, 1998), authors describe strategic experimentation as a trial and error process where every trial generates new knowledge of a problem (Thomke, 1998). Learning that derives from experimentation is fundamental in resolving problems for which the solutions are uncertain and when critical information sources are non-existent or unavailable. In concrete terms, strategic experimentation consists of comparing the idea of the new business model with part of the market (geographic or type of client) and the learning derives from the effective implementation of the strategy, even experimentally. Strategic experimentation is considered by many authors as a key to the successful implementation of new business models (Chesbrough, 2010 ; Doz & Kosonen, 2010, Sosna, Trevinyo-Rodriguez & Velamuri , 2010).

Many authors whose research covers organizational learning cite experience and testing, and more broadly, experimentation as one of the most important vectors of learning (see in particular Garvin (1993); Goh (1998), McGill & Slocum (1993), Huber (1991), Miner & Mezas (1996). Thus experimentation appears as a form of tentative strategy, as defined by Avenier (1997), in other words midway between deliberate and emergent strategy. (Mintzberg, 1985). Indeed, like an emergent strategy a tentative strategy must be endlessly rethought in the light of situations that emerge and become defined through the learning process. Like the deliberate strategy, it is part of a normative perspective, and is seen as an intentionally designed schema for action.

Ultimately, even though experimentation does not replace other forms of strategic analysis, it does provide an important complement (Sorenson, 2003). Here we find March's analysis (1991), suggesting that organizations combine the exploitation of current skills with the search

for new ones.

However, while strategic experimentation is encouraged in the literature, this phase can nevertheless involve difficulties.

## **DIFFICULTIES CAUSED BY THE COEXISTENCE OF TWO BUSINESS MODELS**

The introduction of the new business model using Axytrans technology led to a drop in profitability at Valtis, which can be explained by the difficulty involved in having two coexisting business models.

### **Drop in profitability at Valtis**

As in all activity involving transport, the profitability of a cash transportation firm is based on the density of delivery points per kilometer and how the rounds are organized. It is therefore the local rather than the national market share which is the determining factor. Moreover, developing a cash transportation service is easier in the city than in the country, given the higher concentration of clients in the urban setting. Valtis, a profitable firm operating in a predominantly rural region, had developed some specific skills in terms of optimizing the delivery rounds. Also, the use of containers meant that the cost of picking up in rural areas could be slightly reduced as the cost of using an unmarked vehicle was less than for an armored van.

However, as the Axytrans system was gradually introduced for their clients, both modes of operation (armored and containers) had to coexist in the companies that had opted for this system. Indeed, clients did not all decide to opt for the new system at the same time. Having the two systems coexist meant that the number of points served by each one was reduced, and hence profitability was mechanically reduced, as it is based for a large part on the number of points served per kilometer. This led to financial difficulties: with an identical turnover, extra costs related to the new system appeared. These difficulties are clearly illustrated by Valiance,<sup>13</sup> the other firm that chose to gamble heavily on the Axytrans technology, with the declared aim of limiting transportation by armored vans to less than 60% of turnover in 2003. Valiance took advantage of the keen interest shown by the banks in the container system, which would enable them to avoid the development work that would be required before the end of 2002, as stipulated in the decree of December 2000, and they were able to win over new markets. This strategic desire to impose new technology in a very ambitious way, in contrast to the attitude of Brink's, was very promising for Axytrans, who had some of their best ever years. On the other hand, it was fatal for Valiance, who were unable to bear the overspend associated with the gradual introduction, one client at a time, of the new system. The firm went into receivership in July 2004, and was taken over by Securitas<sup>14</sup>, who were subsequently very circumspect about using the new technology. On the other hand, the fact that Valtis was an independent SME made the transition to the new business model easier, as Philippe

13. Co-leader of the market with €280 million turnover in 2002, Valiance was created in 2001 from the merger between the number 2 and the number 3 in value logistics in France, Ardial and Sersé.

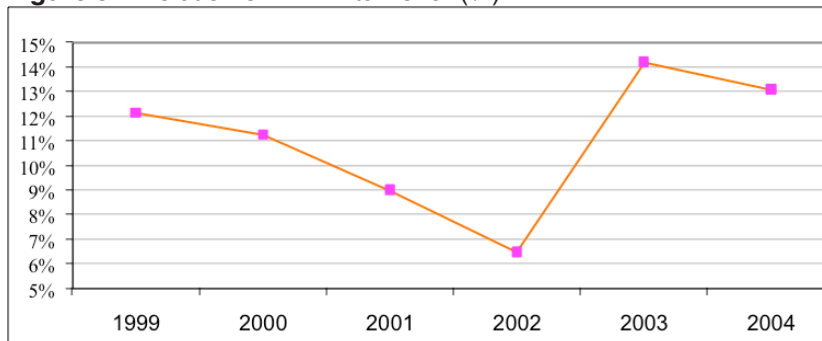
14. Who, with this buyback, became co-leader of the market.

Regnier explains:

«In an SME like mine, this was done very gradually, since I had already taken the risk of adopting the system before it was definitively approved, and I was able to bear this transfer, but taking what I call Japanese steps, if you like: you put one foot in front of the other, but you go forwards very gradually».

In practical terms, Philippe Regnier encouraged his clients to move over to the new technology, which meant that the two systems coexisted on the same cash collection route. Two teams of couriers, one in an armored truck and the other in the van with the Axytrans system, would take to the road and might even pass each other. However, this period of «breaking in» or «Japanese steps», as Philippe Regnier called it, had to be short, because it had considerable consequences on the firm's profitability, as can be seen in the figure below: global profitability decreased as the Axytrans system grew in strength. Valtis was able to bear this drop in performance since the firm was very profitable from the start, and had a good capacity for self-financing, in contrast to Valiance. Also, the family shareholders proved to be more tolerant with regard to short-term profitability. Valtis' profitability improved again as from 2003, after the decision by the ministry to approve the suitcase system: this decision enabled Valtis to develop their new business model along voluntarist lines.

**Figure 5:** Evolution of EBIT / turnover (%)<sup>15</sup>



The contrast between Valiance and Valtis shows that the coexistence of the new and the old business models is difficult financially and should not last too long. Here we see another aspect of the innovator's dilemma (Christensen, 2007): existing firms that have to manage two business models together see their profitability decrease temporarily, which does inhibit them in setting up new business models.

### Coexisting business models and ambidexterity

Apart from the lobbying activity that went on and which persuaded some clients to refuse the new business model, there are two reasons why the armored vehicles were retained: first, to transport coins, which could not be dyed, and second because of opposition from the Banque de France, who had the monopoly in this area, and refused to install the equipment for the new system. This opposition forced those cash transportation companies that had gone over to the new carrier system

15. Figure 3 shows the ration EBIT / turnover for each business model (Axytrans system and armored vehicles), figure 5 shows the same ratio for Valtis as a whole (sum of both business models). It is worth to know that this profitability decreased again after 2005, when the law imposed the necessity to have 2 men in the Axytrans systems.

to keep their armored vehicles to transport banknotes to the Banque de France depots, and also to carry coins. Thus out of necessity, the two business models had to coexist. To give an example, 80% of turnover at Valtis currently derives from transport using the containers, with 20% from using the armored vehicles, mainly for carrying coins and for transfers to the Banque de France.

This coexistence is difficult, especially during the period of strategic experimentation, as can be seen from the changes in profitability at Valtis. Thus some of the strategic options tested during the strategic experimentation phase may be in competition with current company strategies (Beinhocker & Kaplan, 2003). The difficulty for the company lies in managing these experiments and also juggling with both systems at the same time. Organizations have to be ambidextrous (Tushman & O'Reilly, 1996), in other words, at one and the same time they must defend their present activities while exploring new ones.

The problems of ambidexterity have been outlined by Burgelman (1985, 1991). Based on case studies, he defined induced strategic processes, which strengthen the existing perimeter around the firm and which are based on internal organizational learning, and autonomous strategic processes which are initiatives that emerge outside this perimeter and which pave the way for new learning routes, and can lead to regeneration and strategic renewal. This difficult balance between induced strategy and autonomous strategy, which requires appropriate and specifically adapted structures, can account for the structural inertia found in some firms when faced with upheaval in their sector. Once again we see how difficult it is to question prevailing mental scheme. The establishment of the Axytrans model at Valtis and its subsequent success may have been helped both by the personality of Philippe Regnier and by the fact that this was a small family business, offering a degree of flexibility which favored the emergence of an autonomous strategy.

The difficulties of ambidexterity are exacerbated still further in the case of conflicting business models described by Markides and Charitou (2004), where the new business model is not only different from the existing one but also and above all in conflict with it. They cite examples of Internet banking, telephone or Internet insurance, online newspapers: the situation at Valtis is similar. However, as these authors emphasize, it is possible to have business models that coexist, even when they are in opposition, by learning to manage this cohabitation. While some authors favor a pure and simple separation of the old and the new business models into two separate entities (Bower, 1995; Burgelman & Sayles, 1986; Christensen & Overdorf, 2000) other more recent research (Foster & Kaplan, 2001; Gilbert & Bower, 2002; Govindarajan & Trimble, 2005; Iansiti, McFarlan & Westerman, 2003; Markides & Charitou, 2004) supports the idea of a contingent solution, although this is never a straightforward option.

This situation seems all the more difficult in the case of Valtis as without lobbying and state intervention, the new business model would certainly have become the prevailing business model in the sector. A new business model can indeed either coexist with the old one (even if they are partly in conflict), or become exclusive, i.e. it establishes itself

in the market as the dominant model. Thus the concept of self-service in the perfumery sector, devised by Sephora, has become established as the new business model in this sector over the last 15 years, and is contributing to the disappearance of traditional perfume stores. The new business model is so much more efficient for the market that it has destroyed the company's existing business model and eventually the entire market: it has become the dominant business model. Thus the disappearance of the old business model does not seem to have been a choice, but was imposed due to the superiority of the new one, as Christensen explained (1997). In the case of Axytrans, as can be seen from the value curve (cf. **Figure 2**), the value proposition of the business model using Axytrans was so much better that it should have become dominant on the marketplace. The lobbying of the authorities severely hampered its development. This was therefore not a problem of acceptance on the part of the client<sup>16</sup>, which is what we usually find in matters of introducing innovation, but it was the reaction of the competitors that prevented the new carrier methods from becoming established. This unusual situation forced Valtis to manage the coexistence of the two business models, and thus to remain ambidextrous.

16. Apart from the fact that the Banque de France refused to convert to this system, but they did have a monopoly.

## CONCLUSION

In 2008 Axytrans became Oberthur Cash Protection and is today a profitable company, with business expanding overseas. As for Valtis, the firm had turnover of €17 M in 2008 and was bought out at the beginning of 2009 by the Spanish group Prosegur, one of the world leaders in the security sector. As the instigator of the new business model, and with support from Axytrans technology, Valtis has been able to overcome the difficulties in its path and become a considerable actor in its own right in the cash-in-transit market.

This case study has shown the advantage of the concept of the business model, both in research and in practice, with contributions from several areas. However, before we give details, we should note that these contributions must be qualified to some extent as they are the result of a study of a single case, and a successful one at that. But by using a process of abduction, comparing the literature and the situation in the field, we were able to define the types of difficulty associated with the creation and the implementation of a radically new business model. Although not all applicable generally, these characteristics are nevertheless not entirely idiosyncratic.

The first contribution of this research is the fact that even the degree of innovation of a strategy was evaluated. With the procedure we propose it is possible to assess whether an innovation, of whatever sort (technological, client offer, organizational), can or cannot generate a new business model. Although this is useful mainly in theoretical terms, it can also be of managerial interest. The ex-post assessment suggested in the analysis framework can also be used ex-ante, to become a useful tool for managers wanting to prepare a new business model.

Above all, this article helps show how the notion of the business model

can be used to reconsider the question of strategic regeneration. For Agarwal and Helfat (2009), strategic renewal, “includes the process, content, and outcome of refreshment or replacement of attributes of an organization that have the potential to substantially affect its long-term prospects (p.282)”. The introduction of a new business model by an existing firm therefore conforms exactly to this definition. Yet these same authors specify that strategic renewal includes several levels of analysis: firm, inter-firm relations (via alliances and partnerships), sector and inter-sector dynamics, and also interactions in a network of firms.

We consider that the business model, by combining in particular work on innovation and on strategy (Schlegelmilch et al., 2003), constitutes an extra level of analysis, providing a framework that both complements and innovates in the field of strategic renewal. In our research we identified three main vectors for success when introducing a new business model, which have already been studied in the literature on strategic renewal. Thus, Eggers and Kaplan (2009) underlined the cognitive dimension, which results in an inevitable questioning of mental scheme. Burgelman (1991), Hermalin, O'Reilly & Tushman (2007) and also Doz (2010) have shown the usefulness of strategic experimentations in the renewal process. Lastly, McNamara and Baden-Fuller have shown since 1999 that balance is needed between exploration and exploitation in strategic renewal.

The approach via the business model, however, has revealed another feature of strategic renewal which has not been touched on much in the academic literature: the difficulties created by the coexistence of two conflicting business models. The specific regulatory conditions did exacerbate the situation for Valtis at this time, which certainly made this case more interesting in terms of our analysis. For all that, managing the conflict in this firm was relatively simple, due to its size and management style: all decisions lay with Philippe Regnier. A similar situation in a larger company would create other specific problems.

Moreover, the business model approach also enabled us to complete research into ambidexterity. As has already been mentioned, such studies have often covered the organizational dimension of a firm and the way that the cohabitation of two business models is organized within the same firm. Indeed, studying ambidexterity from the standpoint of the coexistence of two conflicting business models did enable us to broaden our scope.

Some new and stimulating areas of research have thus opened up as a result of this first study combining business models and strategic renewal in existing firms. In particular, more longitudinal case studies should be carried out of instances where new business models have been successfully introduced but also where they have been aborted in existing companies, especially large ones, and we should understand in more detail the difficulties and the challenges involved in maintaining two business models simultaneously. Agarwal and Helfat (2009) point out that knowledge of strategic renewal still remains largely to be acquired and that it would benefit from the application of different theoretical perspectives. With this article it is our intention to make a contribution

to this challenge, by proposing an original framework combining the business model with strategic renewal.

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## APPENDIX 1. LIST OF INTERVIEWS

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<b>Position</b>	<b>Date and length of interview</b>
CEO of Valtis	April 2006 – 2 hours July 2006 – 3 hours October 2006 – 4 hours August 2007 – 5 hours March 2008 – 3 hours
Former Business Unit Manager at Brink's	July 2006 – 2 hours March 2007 – 3 hours
CEO of Oberthur Cash Protection	September 2007 – 3 hours March 2008 – 3 hours
Director of Strategy at La Poste	July 2008 – 2 hours

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## APPENDIX 2. MAIN DEFINITIONS OF THE BUSINESS MODEL

Authors	Definition
(Slywotzky, 1995) **	The business system is the totality of how a company selects its customers, defines and differentiates its offerings (or response), defines the tasks it will perform itself and those it will outsource, configures its resources, goes to market, creates utility for costumers, and captures profits. It is the entire system for delivering utility to customers and earnings a profit from that activity
(Timmers, 1998) p 4	An architecture for the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; and a description of the sources of revenues
(Venkatraman and Henderson, 1998) p46	The business model is a coordinated plan to design strategy along the customer interaction, asset configuration and knowledge leverage vectors
(Maître and Aladjidi, 1999)	The business model consists of three elements: a value proposition, appropriate time management and a typology of the ecosystem then of the company's specific positioning. A company's business model is essentially its supply structure, the way income is generated, its organization and the structure of the resulting costs, the way appropriate alliances are established and the resulting position in the value chain
(Applegate, 2000) p.53	A business model is a description of a complex business that enables study of its structure, the relationship among structural elements, and how it will respond in the real world
(Linder and Cantrell, 2000) (p. 13)	It's the organisation's core logic for creating value A story that explains how a company works A business model is your company's logic for making money in the current business environment. It includes the value propositions you work out with all your important stakeholders and the operations you put in place to make good on your promises and to make use of what you get in return
(Gordijn et al., 2000)	The main goal of a business model is to answer the question: "who is offering what to whom and expects what in return". Therefore, the central notion in any business model should be the concept of value
(Hamel, 2000) p66	A business model is a business concept that has been put into practice
(Benavent and Verstraete, 2000) p 89	The business model represents a large unit "which includes relations with suppliers, partnerships, interactions between several markets and can result in decisions which define the conditions and the reality in which the company is operating"
(Tapscott et al., 2000)	Business webs are inventing new value propositions, transforming the rules of competition, and mobilizing people and resources to unprecedented levels of performance...a b-web is a distinct system of suppliers, distributors, commerce service providers, and customers that use the internet for their primary business communications and transactions
(Kraemer et al., 2000) p8-9	They identify the four blocks that make up the business model: "direct sales, direct customer relationships, customer segmentation for sales and service and build-to-order production"
(Stewart and Zhao, 2000)	A statement of how a firm will make money and sustain its profit stream over time
(Mahadevan, 2000) p.59	A business model is a unique blend of three streams that are critical to the business. These include the value stream for the business partners and the buyers, the revenue stream, and the logistical stream. The value stream identifies the value proposition for the buyers, sellers, and the market makers and portals in an Internet context. The revenue stream is a plan for assuring revenue generation for the business. The logistical stream addresses various issues related to the design of the supply chain for the business.
(Weill and Vitale, 2001)	A business model is a description of the roles and relationship 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
(Tapscott, 2001) p5	Business model refers to the core architecture of a firm, specially how it deploys all relevant resources

**Authors****Definition**

(Affuah and Tucci, 2001) p.3	The method by which a firm builds and uses its resources to offer its costumers better value than its competitors and to make money by doing so...A business model can be conceptualised as a system that is made up of components, linkages between components, and dynamics
(Alt and Zimmermann, 2001) p.5-7	We will distinguish six generic elements of a business model: mission, structure, processes, revenues, legal issues and technology. (...) We propose the presented six generic elements as a comprehensive framework in order to develop sustainable business models in the new economy. When designing a business model, all six generic elements and the dynamics of the respective elements have to be considered
(Amit and Zott, 2001) p511	A business model depicts the content, structure and governance of transactions designed so as to create value through the exploitation of business opportunities
(Porter, 2001) p63	A business model is a loose conception of how a company does business and generates revenue
(Winter and Szulanski, 2001)	Business model is typically a complex set of interdependent routines that is discovered, adjusted an fine-tuned by "doing"
(Betz, 2002) p1	A business model is an abstraction of a business identifying how the business profitably makes money. Business models are abstracts about how inputs to an organization are transformed to value-adding outputs
(Chesbrough and Rosenbloom, 2002) p6-7	In the most basic sense, a business model is a model of doing business by which a company can sustain itself – that is, generate revenue The essence of the idea is 'how you get paid' or 'how you make money' with a taxonomy of alternative mechanisms
(Dubosson-Torbay et al., 2002)	A business model is a conceptual and architectural implementation (blueprint) of a business strategy and represents the foundation for the implementation of business processes and information systems A business model is nothing else than a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenues streams
(Elliot, 2002) p7	Business models specify the relationships between different participants in a commercial venture, the benefits and costs to each and the flow of revenue. Business strategy specify how a business model can be applied to a market to differentiate the firm from its competitors
(Magretta, 2002)	A business model describes, as a system, how the pieces of a business fit together.
(Stähler, 2002)	A business model helps to understand the fundamentals of a business. It is a deliberate abstraction of a real business or a future business. It comprises of: <ul style="list-style-type: none"> <li>• A description what value a customer or a partner receives from the business: it is the value proposition, and it answers the question: what value the business creates for its stakeholders?</li> <li>• A description of the products and services the firm is providing. It answers the question: what does the firm sell?</li> <li>• A description of the architecture of value creation. It answers the question: How is the value in what configuration being created?</li> <li>• The value and sustainability of the business is being determined by its revenue model. It answers the question: with what do we earn money?</li> </ul>
(Chesbrough, 2003) p.63-64	Value proposition, market segment, value chain structure, cost structure, the position of the firm on the value network, the competitive strategy.
(Osterwalder and Pigneur, 2003)	A business model is a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm. Therefore we must consider which concepts and relationships allow a simplified description and representation of what value is provided to customers, how this is done and with which financial consequences.

**Authors****Definition**

(Hedman and Kalling, 2003)

A generic business model includes the following causally related components, starting at the product market level: (1) customers, (2) competitors, (3) offering, (4) activities and organisation, (5) resources, and (6) supply of factor and production inputs. These components are all cross-sectional and can be studied at a given point in time. To make this model complete, we also include a longitudinal process component (7), to cover the dynamics of the business model over time and the cognitive and cultural constraints that managers have to cope with.

(Seddon et al., 2004) p.429

A business model outlines the essential details of a firm's value proposition for its various stakeholders and the activity system the firm uses to create and deliver value to its customers. If Porter (1996, 2001) is used to define strategy, a business model may be defined as an abstract representation of some aspect of the firm's strategy. However, unlike strategy, business models do not consider a firm's competitive positioning.

(Mitchell and Bruckner, 2004) p.40

A business model is the who, what, when, where, why, how, and how much an organization uses to provide its goods and services and develop resources to continue its efforts.

(Warnier et al., 2004) p. 20

We define a business model as the choices that a firm makes in order to generate revenue. The business model emerges as all the choices operating on a certain number of variables influencing the operational implementation of a strategy.

(Shafer and Linder, 2005) p.202

We define a business model as a representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network

(Morris et al., 2005) p.727

A business model is a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets

(Osterwalder and Pigneur, 2005) p.2-3

In this paper we describe the business model's place in the firm as the blueprint of how a company does business. It is the translation of strategic issues, such as strategic positioning and strategic goals into a conceptual model that explicitly states how the business functions. The business model serves as a building plan that allows designing and realizing the business structure and systems that constitute the company's operational and physical form. A business model is a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm. Therefore we must consider which concepts and relationships allow a simplified description and representation of what value is provided to customers, how this is done and with which financial consequences.

(Bely, 2005) p.53

Positioning an offer in the market, outlining the processes that will ensure both the value of the offer and the economic performance of the firm, and lastly, choosing the control and management system, all this is building the business mode. These three links in the business model must all be brought into line for it to be successful

(Tikkanen et al., 2005) p792

We define the business model of a firm as a system manifested in the components and related material and cognitive aspects. Key components of the business model include the company's network of relationship, operations embodied in the company's business processes and resource base, and the finance and accounting concepts of the company

(Schweizer, 2005) p. 40

The expression 'business' refers to the fact that a company does business with the purpose of making profit, while the term 'model' is a simplified description or representation of a system that is composed of different elements and the relationships between them. Thus, a business model tries to give an integrated and consistent picture of a company and the way it aims to generate revenues.

(Pateli and Giaglis, 2005) p.168

A business model must explicitly account for the need for partnership and provide the best possible answers to the questions regarding the type of value that each partner will contribute based on its core competence, the distribution of revenues and profits between them, the type of service offerings and the business structures that will be required to implement the changes

**Authors****Definition**

(Voelpel et al., 2005) p.40	The particular business concept (or way of doing business) as reflected by the business's core value proposition(s) for customers; its configured value network to provide that value, consisting of own strategic capabilities as well as other (e.g. outsourced, allied) value networks; and its continued sustainability to reinvent itself and satisfy the multiple objectives of its various stakeholders.
(Tikkanen et al., 2005) p.792	We define the business model of a firm as a system manifested in the components and related material and cognitive aspects. Key components of the business model include the company's network of relationships, operations embodied in the company's business processes and resource base, and the finance and accounting concepts of the company
(Lecocq et al., 2006) p. 98	We define the business model as the decisions that a firm takes to generate revenue. These decisions are based on three main dimensions: the resources and skills mobilized (enabling them to make an offer), the offer made to the clients (in the broadest sense), and the internal organization of the firm (value chain) and its transactions with external partners (value network).
(Zott and Amit, 2008) p.1	The business model is a structural template that describes the organization of a focal firm's transactions with all of its external constituents in factor and product markets.
(Seelos and Mair, 2007) p.53	We refer to the term business model as a set of capabilities that is configured to enable value creation consistent with either economic or social strategic objectives.
(Risto and Mika, 2007) p.119	We identified three elements in all of the studies we reviewed. These elements, expressed in different words, are: (1) value propositions and offerings; (2) various assets and capabilities as resources needed to develop and implement a business model; (3) the revenue logic (including sources of revenue, price-quotation principles and cost structures) that is characteristic of a particular business.
(Fiet and Patel, 2008) p. 751	A business model explains how a venture is expected to create a profit
(Mason and Leek, 2008) p.776	... two cornerstones of business models (...): (1) structure: how firms perceive the structure of their firm, their business network and their position within it; and (2) routines: how firms develop effective operational routines to exploit the potential value of their network.
(Patzelt et al., 2008) p. 206	Business models define how firms manage their transactions with other organizations such as customers, partners, investors and suppliers and therefore constitute the organizations' architecture for the product, service and information flows'.
(Johnson et al, 2008) p. 52-53	A business model (...) consists of four interlocking elements that, taken together, create and deliver value (...): customer value proposition, profit formula, key resources, key processes.
(Casadessus and Ricart, 2010), p. 196	The logic of the firm, the way it operates and how it creates value for its stakeholder

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*Generally, the term business system used by Slywotzky in 1996 is replaced by the more recent term business model, as Tapscott has done*