

# Why Incumbents Struggle to Extract Value from New Strategic Options: Case of the European Airline Industry

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Although industry transformations generally emanate from technological changes, recent examples suggest they may also be due to the introduction of new business models. Whereas many of these models contain seemingly principles and elements, and even though new entrants engage in profitable pursuits, incumbents often struggle in their attempts to extract value from them. Which factors are causing the difficulties experienced by incumbents? And, when are problems most severe? A review of the literature clarifies that incumbents face difficulties associated with cannibalization, conventional wisdom, internal and external inflexibility, and incompetence or overconfidence. The negative effects of these factors are reinforced by, among other aspects, business models consisting of many complementary elements, insufficient autonomy granted to new businesses, an absence of strong leadership or entrepreneurial alertness, and a low sense of urgency. Based on this, we develop a framework, which is illustrated with a case study of low-cost initiatives in the European airline industry, in which we compare endeavors of three incumbents (British Airways, KLM, and Lufthansa) with those of three new entrants (Ryanair, easyJet and Virgin Express). The paper con-

tributes to the literature by shifting the attention from industry changes provoked by technological breakthroughs to transformations originating from the introduction of new business models, and by indicating why incumbents fail to extract value from these models.

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## Introduction

Industry upheavals often originate from major technological breakthroughs. Recent examples include the introduction of flat screen displays that made cathode ray tubes in television screens and computer monitors obsolete (Anderson and Tushman, 1991), self-service banking technologies replacing interpersonal financial services networks (McPhail and Fogarty, 2004), biotechnology superseding chemistry in pharmaceutical development (Rothaermel, 2000), digital imaging reducing demand for analog photographic products (Tripsas and Gavetti, 2000), and

shifts from traditional cattle breeding and crop propagation techniques towards genetic modification (MacNaghten, 2004). Such technological changes can cause shakeouts of existing businesses (Anderson and Tushman, 2001), and dramatic reconfigurations of existing industries, while marginalizing market shares and profits of formerly dominant incumbents (Jones, 2003; Schumpeter, 1942).

Although technological discontinuities have been identified as a major cause for industry disruptions and transformations, we propose that industry reconfigurations are increasingly born from the development of new business models. Examples of the introduction of new business models, defined as the organizing principles and templates around which a business is built (Morris et al., forthcoming), are the introduction of the car-leasing concept, which replaced a large part of business-to-business car sales, and the emergence of business models focusing on the distribution and sales of single-portion packages in developing countries, in order to enable purchases by consumers with lower purchasing power (see Prahalad, 2004). Other illustrations constitute the low-cost concepts introduced by retail chains like Wal-Mart, Aldi, and Lidl, by which they compete fiercely with established firms focusing on service (Christensen, 1997), and the introduction of franchise formulas in branches formerly dominated by one-man's businesses. Examples here include Starbucks and Oil and Vinegar.

Frequently, the introduction of such new business models is accompanied by explicit organizing principles, which makes the inability of incumbent firms to extract value from them appear highly paradoxical (Knott, 2003). More specifically, it raises the following question: why do incumbents struggle to extract value from (seemingly) new strategic options and their associated business models? Research on this topic is important as the development of new business models can be an engine of economic growth and better products and services, while concurrently offering the potential to change the shape of entire industries (Chandy and Tellis, 2000). It contributes to our knowledge regarding firms' likely reactions to disruptive changes, assisting academics and practitioners in their assessments of the challenges associated with pursuing new business models.

We attempt to answer our research question by reviewing the literature on the "incumbent's curse" (Chandy and Tellis, 2000), describing the problems faced by incumbents when adapting to technological changes and when imitating new entrants. Several theoretical explanations are used to illuminate the reasons why incumbents struggle to reap the benefits of a new business model. These are captured in an integrative framework. Subsequently, we illustrate our framework with a case study on the European airline industry, in which we compare incumbents – defined as firms that have participated in previous

generations of products – with new entrants – companies that are new to an industry (Chandy and Tellis, 2000).

The article proceeds along the following lines. We start with our review of the literature and the development of an integrative framework. Subsequently, we introduce the case study, consisting of three attempts by new entrants (Ryanair, easyJet, Virgin Express) and three endeavors of incumbent firms (British Airways, KLM, Lufthansa) to capture part of the profits in the market for low-cost flying in Europe. We address these firms' different reactions to the introduction of the low-cost business model and emphasize several factors that were identified in our conceptual framework, which could possibly explain the performance differences existing between incumbents and new entrants. In the discussion section, we further expand on the idea that incumbents exhibit moderate levels of heed and discipline when pursuing new business models, while we point out the implications of our findings and the limitations of the study.

## Theory

According to Foster (1986) and Christensen (1997) disruptive technological change brings about new value propositions and strategic options that may have a devastating effect on established firms and industry structures (Lei and Slocum, 2002). Incumbent enterprises seem to have great difficulty crossing the chasm created by a radical innovation, while new entrants rise to market dominance (Hill and Rothaermel, 2003). Other researchers have observed declining performance in incumbent enterprises in the face of radical technological innovation (e.g., Abernathy and Utterback, 1978; Christensen, 1997; Foster, 1986; Henderson and Clark, 1990; Rosenbloom and Christensen, 1998; Tushman and Anderson, 1986; Utterback, 1994). More recent studies have focused on difficulties encountered during imitation (e.g. see Rivkin, 2000; Knott, 2003), sources of breakthrough inventions (e.g., see Ahuja and Lampert, 2001), R&D expenditures by new entrants and incumbents (Czarnitsky and Craft, 2004), and differences between incumbents and new entrants in reaction to new initiatives (e.g. Yoffie and Kwak, 2001), or deregulation (Nickerson and Silverman, 2003). In general, these studies point to the existence of an "incumbent's curse" (Chandy and Tellis, 2000), which implies that incumbents possess certain characteristics which complicate the introduction or imitation of new business models.

Most of these studies focus on radical *technological changes*, and the ability of incumbents within an industry to adapt to these changes and reap part of the associated profits. However, there is no reason to believe that the findings do not apply to industry transformations stemming from the development

and commercialization of *new business models*. Incumbents regularly encounter new avenues for creating and claiming value, which do not have technological origins, but stem from the emergence of new business models. We understand business models as organizing principles and a template around which a business is built, which can include terms regarding the logic of profit generation (Stewart & Zhao, 2000), the architectural configuration of internal processes and infrastructures, a firm’s positioning in the market and the drivers underlying a business (Morris et al., forthcoming). In the literature, several factors have been proposed to influence the extraction of value from discontinuous innovations. We discuss the most important variables distinguished, and explain why they hinder the extraction of value from novel business models by incumbent firms.

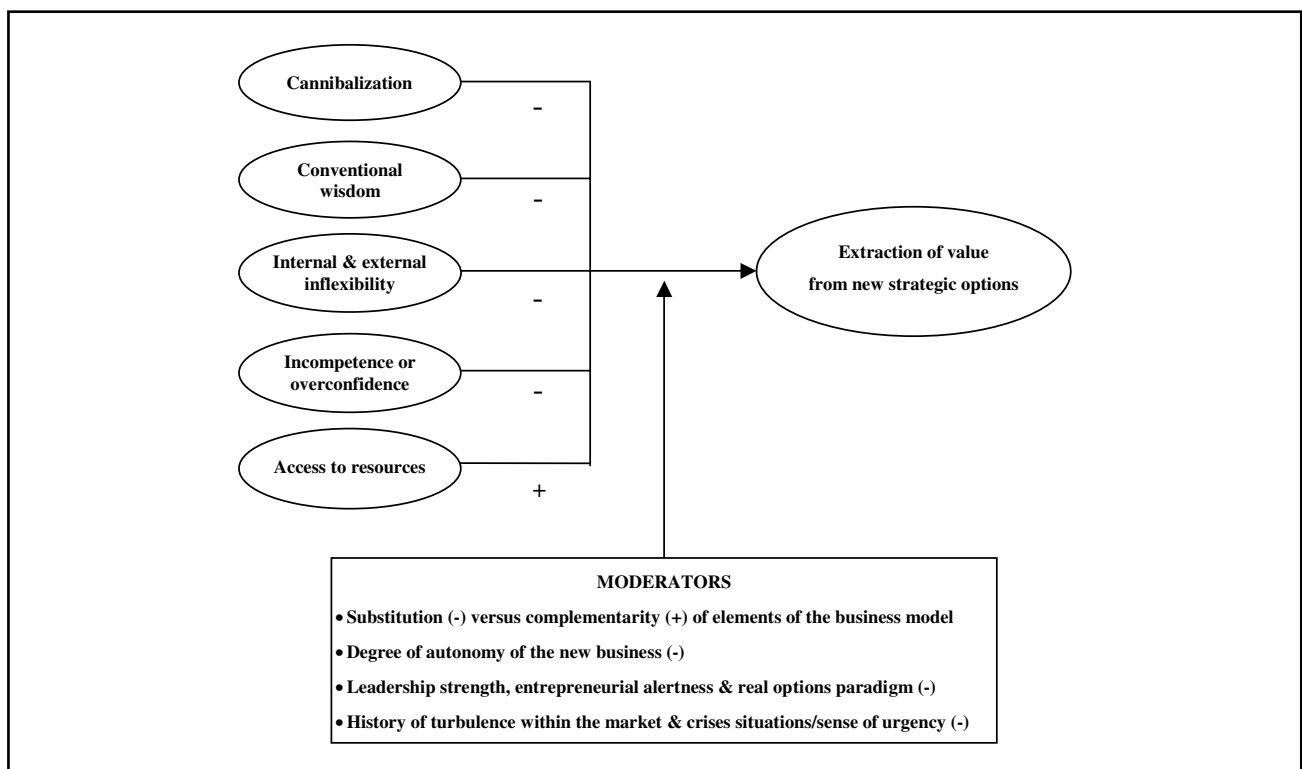
**Existing Perspectives on Limits to Value Extraction by Incumbents**

As argued earlier, established firms often struggle to extract value from new business models. They encounter difficulties in achieving high market shares and profitability, and sometimes discontinue the provision of a new product or service. The literature provides us with several reasons as to why this is the case (see Figure 1). These include: cannibalization; conventional wisdom; structural and network inflexibility; and incompetence or overconfidence of incumbent firms. On the other hand, incumbents’ access to resources might give them an advantage over new entrants. The problems for incumbents have

been argued to be reinforced by several moderators, including: complementarity between elements of the model; low autonomy of the new business; an absence of strong leadership, entrepreneurial alertness, and a real options decision making paradigm; a history of stability within the industry; and an absence of crises situations.

**Cannibalization**

In general, the term “cannibalization” refers to a loss in sales of a firm’s current product due to sales of its new product. New products potentially make existing products obsolete or jeopardize the rents that can be obtained from them (Chandy and Tellis, 2000; Henderson, 1993). It can also concern investments in existing assets such as plants, people, and equipment (Hannan and Freeman, 1984; Williamson, 1985; Ghemawat, 1991; Leonard-Barton, 1992; Chandy and Tellis, 1998; Nickerson and Silverman, 2003). The transition towards a new business model potentially renders existing investments obsolete (Chandy and Tellis, 1998), and magnifies switching costs (Barnett and Burgelman, 1996). Grant (2002), for example, suggested that the ability of major US airlines to compete against low-cost firms like Southwest was limited by their cost structures, restrictive labor agreements, and commitments to provide scheduled services over vast route networks. Incumbents thus have a lower marginal incentive than new entrants to develop or commercialize radical innovations in the short run (Czarnitsky and Craft, 2004).



**Figure 1 Integrative Framework: Why Incumbents Struggle to Extract Value From New Strategic Options**

Cannibalization effects are reinforced by the fact that managers tend to develop a strong professional and personal commitment to the investments they initiated, which increases their reluctance to invest in a new type of business (Chandy and Tellis, 1998). In this way, a firm's previous investments and its repertoire of routines that is attached to them constrain the firm's future behavior (Teece et al., 1997). As a result, industry incumbents pioneer innovations that are connected to competence enhancement while newcomers favor competence destroying innovations (Anderson and Tushman, 1991; Czarnitsky and Craft, 2004; Schumpeter, 1942). New entrants undertake investments that enable them to circumvent entry-barriers to an industry and to gain share from incumbent firms, thereby upsetting the status quo (Hill and Rothaermel, 2003).

### Conventional Wisdom

Conventional wisdom encourages incumbents to maintain a focus on current business and competencies (Foster, 1986). It influences management's perception of new strategic options, and the implementation strategy that is eventually selected for them. Often, 'established firms become wedded to ingrained patterns of behavior that slow a senior manager's ability to scan for emerging developments' (Lei and Slocum, 2002: 6). Conventional wisdom can play a role both on industry-level, where it consists of shared beliefs about customers, technologies and the best way to compete in an industry (Hill and Rothaermel, 2003), and at organizational level, where it consists of cognitive structures or organizational filters that screen out information that conforms with the dominant logic within a firm, which is based on its existing business activities (Prahalad and Bettis, 1986; Bettis and Prahalad, 1995). Organizational theorists argue that the organizational filters of incumbents make them less effective at radical innovation (e.g., Hannan and Freeman, 1984; Henderson and Clark, 1990; Chandy and Tellis, 2000). They serve to direct managers' attention to the foreseeable needs of their current customers (Christensen and Bower, 1996; Czarnitsky and Craft, 2004; Chandy and Tellis, 2000). Besides, they confront leading firms with difficulties that stem from their attempts to adapt knowledge, experience, managerial mindsets and assumptions from their old business models to the reality of the new business model (see Henderson and Clark, 1990; Jones, 2003; Lei and Slocum, 2002; Tripsas and Gavetti, 2000).

### Internal & External inflexibility

Flexibility is an organizational trait essential for the ability to cope with industry change (Volberda,

1998). As incumbency is strongly correlated with firm size and larger firms are in general more bureaucratic, slower in their reactions, and less willing to take risks (e.g. Mitchell and Singh, 1993; Chandy and Tellis, 2000), new entrants are often more flexible than incumbents. Incumbents have developed organizational routines or procedures to carry out repetitive tasks related to a current product or business efficiently (e.g., Hannan and Freeman, 1984; Henderson and Clark, 1990; Chandy and Tellis, 2000). Most of these rules remain in place as expectations are formed around them, making them costly to change (Heffernan, 2003). Similarly, the embeddedness of firms within a value network of suppliers, customers, investors, and communities to which they have made strategic commitments (e.g. contractual commitments) can constrain the development and commercialization of new business models, thereby inhibiting organizational change (Argyres and Liebeskind, 1999; Nickerson and Silverman, 2003; Christensen, 1997; Ghemawat, 1991; Rosenbloom and Christensen, 1998; Hill and Rothaermel, 2003). Both internal and external structures might become sources of rigidity or sub-optimality when transferred onto inappropriate new situations (Leonard-Barton, 1992). They are likely to constrain the adaptation process (Nickerson and Silverman, 2003; Hill and Rothaermel, 2003), and reduce radical innovation (Chandy and Tellis, 1998). Banks and financiers of incumbents, for example, tend to underscore tight earning expectations, while new entrants regularly work with higher-risk venture capital (McRae Watts, 2001).

### Incompetence or Overconfidence

Henderson (1993) argues that incumbents' efforts with respect to radically new technologies are characterized by "incompetence" and "underinvestment" (Chandy and Tellis, 2000). Evidence for the incompetence argument is provided by Knott (2003), who investigated why independent firms did not duplicate superior routines used by franchises in the US quick printing industry. Her survey of 235 firms indicates that independent entrepreneurs' failures to employ superior routines stemmed from failure to gather public information about best practice at one extreme, and a deliberate choice to deviate from best practices at the other extreme. These results indicate that incumbents' problems might stem from their own incompetence or overconfidence.

### Access to Resources

In contrast to the large number of factors that have been suggested to hamper the extraction of value from new strategic options by incumbents, several authors have argued that incumbents are in a better



position to gain benefits from such new options. Galbraith (1968), for example, in building on Schumpeter's arguments, suggests that large incumbent firms have many advantages over small ones in their ability to produce radical innovations. In particular, incumbents might be able to deploy slack resources, spread risks widely, and access more financial resources, while enjoying larger economies of scale (Chandy and Tellis, 1998), and the availability of complementary assets (Teecce, 1986). Furthermore, they enjoy an existing customer base. Moreover, they are likely to possess greater market power, which gives them preferential access to distribution channels compared to new entrants (Chandy and Tellis, 2000).

### Moderating Variables

We also consider it worthwhile to discuss several moderating variables, consisting of factors that exacerbate or neutralize the effects of one or more of the incumbents' characteristics previously discussed. A recent theoretical contribution by Hill and Rothaermel (2003) offers a good starting point here. These authors are puzzled by the fact that some incumbent organizations seem to be able to adapt to significant market dislocations, survive, and regain historic performance levels, and they offer counterexamples to the standard model, which are too numerous to be ignored (see Ahuja and Lampert, 2001; Rosenbloom, 2000; Rosenbloom and Christensen, 1998; Rothaermel, 2001). Therefore, Hill and Rothaermel (2003) investigate which factors moderate the predicted decline in the relative economic performance of incumbent enterprises following the arrival of a radical innovation in technology. Analogous to this, we discuss several variables moderating the relationship between incumbent characteristics and their relative ability to extract value from (seemingly) evident business models.

### Substitution versus Complementarity of Elements of a Business Model

Research on organizational configurations and activity systems has documented a 'high degree of interconnectedness among a firm's activity choices' (Siggelkow, 2002: 902). Although this interconnectedness might be positive in some cases, several researchers have put forward the potential downside of tight linkages, in particular in the context of changing environmental conditions (Levinthal, 1997; Siggelkow, 2001). The implications have been suggested to differ for elements that act as substitutes or as complements (Siggelkow, 2002). Two activities are said to interact as substitutes if the marginal benefit of each activity decreases with increasing levels of the other activity, while they act as complements if the marginal benefit of each activity

increases with a higher level of the other activity (Milgrom and Roberts, 1995). Misperceptions of complementary interactions tend to be more detrimental than misperceptions of substitute interactions, as the underlying payoff relationship for substitutes is in part self-correcting (Siggelkow, 2002). When elements of the business model are complementary 'decisions that seem minor or easily altered can take on surprising salience' (Rivkin, 2000: 843). The likelihood of incumbent characteristics having disturbing effects is much larger than when elements of the business model substitute for each other.

### Degree of Autonomy of the New Business

Volberda (1998) and Christensen (1997) highlight the importance of spatially positioning a new business outside the structure of the existing organization. Firms need to form special units that have reporting relationships outside of "normal" channels. These special units must be encouraged to develop their own set of product development routines, insights, and innovative cultures away from the confines, reporting relationships, and preexisting norms of other parts of the firm (Lei and Slocum, 2002; Chandy and Tellis, 1998; Hill and Rothaermel, 2003). Autonomous business units may foster internal competition, and they may not be hampered by cannibalization of rents from existing products (Chandy and Tellis, 2000). Therefore, setting up autonomous business units might alleviate some of the problems faced by incumbents when attempting to extract value from new strategic options. The importance of autonomy is illustrated by Eastman Kodak's attempts to develop its digital imaging business within its existing structure. On the one hand, managers and technical staff who had long been involved with developing conventional photographic technologies experienced great difficulties in attempting to learn entirely new competencies, while they simultaneously had to "unlearn" their traditional sets of routines for product development that were based on silver halide-based processes (Lei and Slocum, 2002).

### Entrepreneurial Alertness, Leadership Strength, and Real Options Decision Making Paradigms

Entrepreneurial alertness will lead people to alter perceptions and change a clearly dysfunctional set of rules, thereby providing a counterbalance against the effects of rigid rules-following behavior, and preventing lock-in from occurring (Heffernan, 2003). Entrepreneurial alertness raises incumbent's absorptive capacity, or its ability to 'recognize the value of new information, assimilate it, and apply it to commercial ends' (Cohen and Levinthal, 1990: 128). Entrepreneurial alertness thereby increases an incumbent's ability to respond to a discontinuity created by a radical change (Hill and Rothaermel, 2003), and it miti-

gates any problems related to the extraction of value from a new business caused by its own characteristics. In the same way, incumbent firms that follow a real options decision making paradigm are more likely to fund multiple types of business, which are allowed to develop independently from each other. These firms are more likely to give new initiatives a fair chance, and they might be less prejudiced by conventional wisdom or by the performance of their existing businesses (Hill and Rothaermel, 2003). Similarly, strong leadership can invigorate any attempts to achieve a meaningful transformation of an organization (Pfeffer, 1992). It can force organizational participants out of their shell and can urge them to think beyond accepted and dominant perspectives on the business within the firm. Strong leadership energizes discussions on renewal within the firm, and it might even push employees to encroach on existing rules, procedures, and structures. Strong leadership might also serve as a focusing device (Nooteboom, 1992), providing employees with direction (Weick, 1993, 1995). In conclusion, strong leadership might counteract many of the problems faced by incumbent firms.

### History of Turbulence within the Market & Crisis or Sense of Urgency

Hill and Rothaermel (2003) contend that firms based in environments with a history of stability are more likely to have developed mechanistic structures that make adaptation to changed circumstances problematic, whereas firms based in environments with a history of instability are likely to operate within more organic structures that enable more rapid responses to unpredicted events (Burns and Stalker, 1961). When incumbent firms are used to change and adapt, due to high degrees of environmental turbulence in their industry, their characteristics are less likely to impede the extraction of value from new initiatives. Beyond this, a crisis can encourage individuals to step outside the standard set of rules and procedures and consider how to improve (Heffernan, 2003). In contrast, successful performance of an existing business of an incumbent diminishes the need (or desire) of such a firm to pursue organizational change (Nickerson and Silverman, 2003). An example is provided by the car industry, in which lean production by Japanese car suppliers in the 1970s caused a shift in buyer preference towards Japanese cars. The dramatic loss of market share, negative profits, and threats to the firms' survival induced Ford and Chrysler to make changes. Rule-following behavior in these firms changed only once a crisis situation created a sense of urgency and induced peo-

ple to take note of more efficient technologies that already existed (Heffernan, 2003).

### Case Study

In order to illustrate the integrative framework developed in the previous section, we present a comparative case study of six firms in the European airline industry's low-cost segment. The case study method is most appropriate here, because of its ability to illuminate contextual conditions and intricate relationships between a large numbers of explanatory variables (Yin, 2003). Incumbent firms in the European airline industry have been challenged by new entrants that have embraced a radically different business model: low-cost passenger transport, also called low-cost flying. Unlike the traditional flag carriers, these airlines do not offer extensive meals, entertainment programs, luxurious seats, and other services. Instead, everything – from reservation and check-in procedures to aircraft furnishing – is directed at lowering the average cost per passenger kilometer traveled. The magnitude of the changes induced by the new business model is considerable. Within a few years, low-cost airlines have been able to capture an estimated ten percent of the European market, while growth of the low-cost segment has equaled 38 percent per year over the last eight years (Jubak, 2004). The emergence of the low-cost carriers has forced established airlines, like British Airways, KLM, and Lufthansa to lower their fares, in particular on routes to the UK and Ireland, and to popular holiday destinations around Europe. The appearance of the business model of low-cost flying seems to have fundamentally changed the European airline industry.

“The appearance of the business model of low-cost flying seems to have fundamentally changed the European airline industry”

Incumbent airlines have faced large difficulties in capitalizing on the opportunities for low-cost flying despite the fact that low-cost flying business models seems to consist of a few apparently evident organizing principles, which already existed since 1971 when Southwest started low-cost-flying in the US, and which are explicitly reproduced on some of the websites of low-cost carriers (see for example [www.easyjet.com](http://www.easyjet.com)), Where new entrants managed to reap large profits in the years following the introduction of the new business model, companies like KLM and British Airways have been struggling to adapt to their changing competitive context. Our investigation starts with a description of the low-cost business model and recent developments in the European airline industry. Subsequently, we present three cases

of independent new entrants, Ryanair, <sup>1</sup> easyJet, and Virgin Express. Given their comparatively short history, these airlines have experienced remarkable growth in recent years. They have established themselves as alternatives to regular full-service airlines. We proceed with three cases of low-cost initiatives from incumbents, consisting of British Airways (Go Fly), KLM (Buzz), and Lufthansa (Eurowings).

### Low-cost Business Model

Morris et al. (forthcoming) provide an excellent overview of extant literature on business models. They suggest that business models should at least answer the following five questions: (1) How will the firm create value? (2) For whom will the firm create value? (3) What is the firm's internal source of advantage?

(4) How will the firm differentiate its products and services from other organizations? (5) How will the firm make money? They illustrate this with an example from the business model of Southwest Airlines. An adapted version of this example is presented in Table 1.

Southwest is a U.S. low-cost airline which has achieved profitability ever since 1972, including years when most airlines incurred losses, and which consistently ranked in the top five of the most desired companies to work for by *Fortune* magazine (Morris et al., forthcoming). Besides, in 2002, Southwest had a market capitalization of \$10.7 billion, which was twice the value of the other carriers combined. Rivkin (2001) and Gittel (2003) noted that Southwest replicated its no frills airline with success in markets from California to New England, while

**Table 1 Example of a Low-cost Flying Business Model**

Questions to be answered:	Response in business model Southwest
How will the firm create value?	<ul style="list-style-type: none"> <li>Sell services only</li> <li>Standardizing offering</li> <li>Narrow breadth and shallow lines</li> <li>Internal service delivery</li> <li>Short haul, low-fare, high-frequency, point-to-point service</li> <li>Deliver fun &amp; sell service by itself</li> <li>Serve only drinks/snacks</li> <li>Assign no seats/no first class</li> <li>Direct distribution, no use of travel agencies/intermediaries</li> <li>Fully refundable fares, no advance purchase requirement</li> <li>Maximum one-way fare (50 to 60 percent below competitors' rates)</li> <li>Maximum food cost per person</li> <li>Achieving airplane turnaround time records in industry</li> </ul>
For whom will the firm create value?	<ul style="list-style-type: none"> <li>Both B2C and B2B sales (private and corporate sales)</li> <li>Sales on a national level and on a broad retail market</li> <li>Business on a transactional level</li> <li>Managed evolution from regional airline to serving 59 airports in 30 states</li> <li>Careful selection of cities based on fit with operating model</li> <li>85 percent penetration of local markets</li> </ul>
What is the firm's internal source of advantage?	<ul style="list-style-type: none"> <li>Highly selective hiring of employees that fit profile</li> <li>Don't operate a hub-and-spoke route system</li> <li>Fly into non-congested airports</li> <li>Innovative ground operations approach</li> <li>Independent baggage handling system</li> <li>Use of relatively small Boeing 737 aircraft (one type)</li> <li>No code sharing with other airlines</li> <li>At least 20 departures per day per airport</li> <li>Maximum flight distances, maximum flight times</li> <li>Turnaround times of flights lower than 20 minutes</li> </ul>
How will the firm differentiate itself?	<ul style="list-style-type: none"> <li>Image of operational excellence, consistency, and dependability</li> <li>Differentiation is achieved by stressing on-time arrival, lowest possible fares, and passengers having a good time (a spirit of fun)</li> </ul>
How will the firm make money?	<ul style="list-style-type: none"> <li>Fixed revenue source</li> <li>High volumes, and low margins</li> <li>Short-haul routes and high frequency combined with consistently low prices and internal efficiencies result in annual profitability regardless of industry trends</li> </ul>

Source: adapted from Morris et al., forthcoming; Yoffie and Kwak, 2001; Gittel, 2003

other airlines such as Continental failed in their no-frills efforts.

When Ryanair and easyJet, the pioneers in the European low-cost segment, started to offer low-cost services, they explicitly mimicked low-cost airlines in the U.S., such as Southwest (The Economist, 2004). Their business model includes *a simple product* (no meals, snacks, and drinks for free; narrow seating, 148 versus 126 seats; no seat-reservation; no frequent-flyer programs), *differential positioning* (initially focused on leisure traffic, and price-conscious business passengers; short-haul point-to-point traffic with high frequencies; aggressive marketing; using secondary airports and even former military bases like Frankfurt-Hahn; competition with other transportation carriers), and *low operating costs*. The latter principle derives its force from multiple sources.

New entrants experience low entry-level salaries, which undercut the wages paid by European majors to experienced pilots and maintenance workers. Furthermore, minimal retirement-costs are incurred because there are few workers with enough seniority to retire (Jubak, 2004). Moreover, flexible workforces enable low-cost airlines to fly and support each aircraft with only eighty workers, compared to 115 or more employees required by a traditional network carrier. In addition, secondary airports guarantee low airport fees. At the same time, homogeneous fleets reduce new entrants' needs for different spare parts and standby crews, while diminishing the costs of training. They entail high resource productivity, and short ground waits due to simple boarding processes. As most low-cost airlines do not carry freight, offer no hub services, and strive for short cleaning times, costs diminish further. High degrees of online ticket-sales and the use of direct sales channels reduce the commissions that have to be paid to intermediaries (Mercer, 2002; The Economist, 2004; Jubak, 2004), while aggressive ticket pricing strategies, combined with state of the art yield management systems warrant high turnovers (Tutor2u, 2003). The different elements in these business models are consistent and supportive of each other. Rules applied to, among other aspects, maximum fares and food costs, and flight turnaround times, prevent firms from making strategic or tactical moves that are inconsistent with their business model (Gittel, 2003; Morris et al., forthcoming; Yoffie and Kwak, 2001).

### How the Low-cost Business Model Changed the European Airline Industry

Historically, the European airline sector has been dominated by national flag carriers, which accounted for 70 percent of passenger traffic (Tutor2u, 2003). Unlike the US, where Southwest Airlines already started low-cost passenger traveling in 1971, European airlines either focused on service degree or on offering charter flights. In 1991 the Irish airline

Ryanair decided to pursue a new business model and transformed itself into the first European low-cost carrier. From that moment on, low-cost flying really started to take off. In 1998, low-cost carriers serviced an estimated two percent of intra-EU passenger traffic. This increased to four percent in 1999, seven percent in 2001 (Tutor2u, 2003), and almost nine percent in June 2002 (www.oag.com). Where the economic slowdown and tragic events such as September eleventh and the SARS epidemic resulted in significant losses, drastic reorganizations, and bankruptcy for some incumbent airlines, new entrants seized the strategic option of low-cost flying. Predictions of the market share of low-cost carriers in intra-EU passenger traffic for 2010 range between 15 and 25 percent (Tutor2u, 2003; Mercer, 2002). These figures are still lower than market shares achieved on the US market, where low-cost competition exists on seventy percent of the routes and market share has risen to around thirty percent (The Economist, 2004). Nonetheless, the European low-cost carriers have had a significant impact on the structure and profitability of the European airline industry and the growth of intra-European passenger traffic.

In 2004, at least fifty firms attempted to serve part of the intra-European low-cost segment (www.etn.nl). However, according to Credit Swiss First Boston, Ryanair and easyJet together dominate this market with a joint share of 58 percent (Jubak, 2004). Low-cost carriers offer flights on new routes, as well as substitutes for high service offerings by incumbents, creating additional demand in uncontested areas.

In 2002, flights from London to Rome, Zurich, Amsterdam, and Frankfurt were carried out by low-cost companies in 27, 26, 25 and 23 percent of the cases respectively. Flights from London to Nice, Malaga, Barcelona, Dublin, and Geneva even accounted for an estimated 51, 49, 44, 40 and 38 percent of the total passenger market (Dennis, 2003). In addition to the substitution of flights formerly carried out by full-service passenger carriers, low-cost carriers have also undermined the traditional market for package holidays (The Economist, 2004).

In order to assess the position of new entrants and incumbents within this market, we have developed an overview of several important indicators, which we provide for three new entrants (Ryanair, easyJet, and Virgin Express), and the subsidiaries of three incumbents (Go Fly, a former subsidiary of British Airways; Buzz, a former subsidiary of KLM; and EuroWings, in which Lufthansa has a majority share). We compared the years in which each of these firms initiated their low-cost business, the number of airports they attend, and several other key figures. Subsequently, in our case description, we elaborate on the low-cost initiatives of the three new entrants, which we compare with the endeavors of incumbent airlines.



### New Entrants

Originally established in 1985, Ryanair was relaunched as a low-cost carrier in 1991, just after a new management team was installed. The airline was closely modeled on the success story of Southwest Airlines, which introduced the low-cost concept in the United States in 1971. Ryanair was the first new entrant to seize the strategic option of low-cost flying in Europe. The airline surrendered its existing business and entered an unknown, unexplored segment in the European airline industry. Operating from its base in Dublin, Ryanair was Europe's only low-cost carrier for four years. The airline has experienced remarkable growth, with a network that expanded to a total of 125 routes in the financial year ending 30 March 2003. In that year, Ryanair carried 15.7 million passengers across Europe, resulting in total revenues of €842.5 million, and a pre-tax profit of €264.6 million (annual report Ryanair, 2003).

The second major new entrant consists of EasyJet, which was founded in the first half of 1995 by Stelios Haji-Ioannou and started operating later that year from London-Luton airport, offering flights to Glasgow and Edinburgh. Its network expanded to include 105 routes, 38 airports in 35 cities in September 2003. During the financial year 2003, easyJet carried 20.3 million passengers with a turnover of GBP 932 million and a pre-tax profit of GBP 52 million (annual report easyJet, 2003). The final low-cost new entrant considered here is Virgin Express, which was originally founded in 1992 by City Hotels Group as EuroBelgium airlines (EBA). With a focus on charter services, the airline carried out its first flight in November 1994. On 23 April 1996, EBA was acquired by the Virgin Group, which changed its name to Virgin Express. The airline's strategic focus shifted to scheduled low-cost flights, some *ad hoc* charter flights and some serial flights for tour operators. The mission of Virgin Express became delivering that of friendly, punctual service throughout Europe at affordable prices (annual report Virgin Express, 2002).

Congruent with the low-cost business model, these new entrants concentrate on low fares, frequent point-to-point flights on short-haul routes, and low operating costs. They mainly offer services to secondary airports, while a homogenous fleet reduces maintenance and personnel costs. Utilization rates and occupancy of the fleet are high compared to incumbents (see load factor cross-case comparison). To reduce sales expenditure, online booking systems are used, resulting in over ninety percent of all tickets being purchased online at Ryanair and easyJet (Ryanair.com, 2004; annual report easyJet, 2003). Other measures implemented by new entrants to save costs include the elimination of services such as printed tickets, pre-assigned seats, interline connections with other airlines, and free catering on-board. Interestingly, easyJet deviates from the low-cost business

model in two ways. First, the airline services a number of primary, congested airports. Servicing these major hubs engenders a critical mass of passengers for easyJet's short-haul routes to secondary airports. Second, Airbus was appointed in 2002 as preferred aircraft supplier adding a second brand of aircraft to the Boeing fleet. Although a heterogeneous fleet results in additional operating costs, these were suggested to be outweighed by lower costs of an estimated 10 percent (easyjet.com, 2004).

The flexibility resulting from the autonomous position of the new entrants reputedly benefits their ability to anticipate and adjust to changes in the industry. Both easyJet and Virgin Express are, in contrast to Ryanair, part of a larger group, the easyGroup and The Virgin Group, respectively. Despite this possible constraint, the subsidiaries possess a great deal of autonomy, as their parent companies function as holding companies, which invest in a large variety of industries. While the easyGroup does not contain another airline subsidiary, The Virgin Group also operates Virgin Atlantic, an airline emphasizing luxury and service (virginatlantic.com). This might have contributed to the focus of Virgin Express on affordable prices *and* punctuality of its flights, instead of purely offering low fares. Moreover, because Virgin Express was a member of The Virgin Group, which at the time had already developed several initiatives in other businesses, it had access to a considerable amount of resources.

An important step in Ryanair and easyJet's development was their expansion through acquisition. In January 2003, Ryanair reached an agreement with KLM Royal Dutch Airlines for the acquisition of Buzz, KLM's low-cost subsidiary. The main reason for acquiring Buzz was to strengthen Ryanair's position at London-Stansted airport. After the acquisition, an estimated seventy percent of the aircraft movement at London-Stansted was accounted for by Ryanair, making the airport unattractive for possible competitors (Goodbody stockbrokers, 2003). In July 2002, easyJet acquired Go Fly, a former subsidiary of British Airways. That year, its revenue increased with 54.6 percent; 36.1 percent consisting of autonomous growth and 18.5 percent from the acquisition of Go Fly (annual report easyJet, 2002). Through the acquisition, easyJet expanded its network and became the largest low-cost carrier in Europe.

### Incumbents

In November 1997, British Airways announced the launch of a new low-cost airline for Europe. Go Fly carried out its first flight in May 1998 from its base at London-Stansted. The airline was introduced as a subsidiary directly owned by British Airways Plc., creating an autonomous position separate from other activities. Go Fly started operating from Lon-

don-Stansted in order to prevent any interference with other activities and expansion plans at London-Heathrow and London-Gatwick. A mere two and a half years after its first flight, in November 2000, British Airways announced its intention to sell Go Fly. According to British Airways, Go Fly was no longer compatible with its fullservice strategy. In June 2001, the sale of Go Fly to investment company 3i was completed for a total of GBP 110 million, compared to an initial investment of GBP 25 million (press announcement British Airways, June 2001). In July 2002, EasyJet subsequently acquired Go Fly for GBP 374 million, with Go Fly holding a total of GBP 127 million in cash (annual report easyJet, 2002).

Despite the changes in ownership in short periods of time, Go Fly performed relatively well. Although initially losses were incurred, Go Fly expanded in four years to become Europe's third largest low-cost carrier. In the financial year ending March 2002, Go Fly carried a total of 5.7 million passengers, with total revenues of GBP 231 million and a pre-tax profit of GBP 14 million (UK Civil Aviation Authority, 2002). The airline operated a homogenous fleet with high utilization rates. The load factor, representing the occupancy of the aircraft, measured 80.4 percent in 2002 (annual report easyJet, 2002). Go Fly also used the Internet as a distribution channel, with 82.5 percent of all tickets being sold over the Internet in 2002 (annual report easyJet, 2002). Furthermore, the ratio of advertising costs to total costs fell sharply once image and reputation had been established, which is very characteristic for the development of low-cost airlines' cost patterns.

In 1999, KLM UK, part of the KLM Group, founded low-cost carrier Buzz in response to the increasing popularity of rivals such as easyJet and Ryanair. Buzz started operating from London-Stansted Airport, using part of KLM UK's capacity. In the three years of its existence, Buzz was never financially profitable. Two years after its first flight, Buzz performed on a break-even level, while independent low-cost carriers were already highly profitable. Despite these problems, KLM subsidiary Transavia launched the Basiq Air brand in the same year. In October 2002, KLM announced its intent to operate Buzz as *the* low-cost airline for the KLM group. In an effort to strengthen the position of Buzz, the low-cost carrier became an independent enterprise within the KLM Group, separate from KLM UK (press announcement KLM, October 2002; annual report KLM, 2003). Up till then, Buzz's location within the KLM Group reduced its ability to operate independently. However, hopes of Buzz becoming financially viable on its own quickly faded. Over the financial year ending March 2003, the net income derived from KLM's low-cost carriers amounted to a negative €2 million (annual report KLM, 2003). January 2003, only a few months after declaring that Buzz was to be the KLM Group's low-cost carrier, KLM announced that the company had signed an agree-

ment to sell Buzz to Ryanair (press announcement KLM, January 2003). According to stockbrokers, Ryanair acquired Buzz for €23.9 million, with a total of €19 million in cash, resulting in a net purchase price of just €5 million. The decision to sell Buzz followed from increasing competition and high numbers of new entrants in the low budget segment (press announcement KLM, January 2003).

Despite the evident nature of the low-cost business model, Buzz did not follow its rationale completely. The airline did remove services such as printed tickets and free on-board beverages and meals. Furthermore, the airline used the Internet as its main sales channel, via its web-site [buzzaway.com](http://buzzaway.com), along with a number of call centers. However, Buzz serviced several primary, high cost airports and operated an expensive and inefficient fleet consisting of BAe 146 and Boeing 737-300 aircraft. This combination reduced cost efficiency and lowered profitability. As soon as Ryanair acquired Buzz, the primary airports were removed from its portfolio, and unprofitable routes were replaced with services to secondary airports with higher frequencies and lower fares. Furthermore, Ryanair announced its intention to return the fleet of Buzz to its lessors (annual report Ryanair, 2003).

In 1993, Eurowings was founded by a merger of Nürnberger Flugdienst (NFD) and Reise-und Industrieflug (RFG). In 2001, Lufthansa acquired 24.9 percent of the shares of Eurowings. An option to acquire another 24.1 percent of the shares was exercised in April 2004. In August 2002, in response to increasing low-cost competition entering the German market, Eurowings turned its charter into a low-cost carrier called Germanwings ([eurowings.com](http://eurowings.com), 2004). In 1996, Eurowings carried 1.9 million passengers with a fleet of three aircraft. In 2002, 3.8 million passengers were carried by 53 aircraft to 49 destinations across Europe. Total revenues increased to €584 million in 2002 with a pre-tax profit of €8.1 million in 2002 (Annual report Eurowings, 2002). With the changing focus to low-cost flights, cost efficiency became increasingly important. In conformance with the low-cost business model, Eurowings decided to solely apply Airbus aircraft for Germanwings. In order to keep up with competitors, services such as printed tickets and free catering on-board were eliminated, while the Internet as a distribution channel was heavily promoted (Annual report Eurowings, 2002). Although Germanwings is a low-cost carrier, the airline focuses not only on price, but also on quality, reliability and punctuality, as witnessed by its slogan "Fly High, Pay Low" ([germanwings.com](http://germanwings.com), 2004) Table 2.

The case study confirms that new entrants are frequently more successful in extracting value from novel strategic options than incumbents. They capture the number one as well as the number two positions in the European low-cost flying market segment.

**Table 2 Cross-case Comparison of Key Figures**

	Ryanair	easyJet	Virgin Express	BA (Go Fly)	KLM (Buzz)	Lufthansa (Eurowings)
Year low-cost initiated	1991	1995	1996	1998	1999	2002
Number of airports attended	45	18	9	– 287	– 213	– 331
Number of aircraft	36	94	23	(13) 36.2	– 16.1	(53) 47.0
Passengers in millions	7.4	6.4	3.0	(2.6) 14,983	– 6,960	(3.0) 15,200
Total revenues in million €	487	507	290	(258) 607	(-) 287	(598) 1,472
EBIT in million €	116	54	– 48	–	–	(17) <25
Internet/total sales (%)	74	75.8	24	– 5	– 5	– 4
Number of aircraft brands	1	1	1	(1) 71.7	(2) 79.8	(1) 71.8
Load factor (%)	75.0	81.9	73.3	– –	– –	– –
Weekly frequency	1777	1097	386	(805) 27.2	(400) 27.1	(2632) 26.4
Personnel/total costs (%)	16.4	19.3	12.1	(8.2) 7.6	– –	(23.0) –
Maintenance/total costs (%)	5.5	10.7	11.6	(13.9) 13.0	– 8.9	– –
Advertising/total costs (%)	5.8	6.2		(8.7)	–	–
Ownership status	Autonomous	Autonomous	Autonomous	Autonomous	Subsidiary	Subsidiary
Airport locations	Mainly secondary	Primary and secondary	Primary and secondary	Primary and secondary	Primary and secondary	Secondary

*Notes to the table:*

- 1 All data is derived from the respective annual reports and web sites; Ryanair (2001), easyJet (2000,2001), Virgin Express (2000), British Airways (2001), KLM (2001), Lufthansa (2000), Eurowings (2000).
- 2 All monetary information is converted with the appropriate financial year-end exchange rates derived from the ECB ([www.ecb.int](http://www.ecb.int)).
- 3 EBIT = Earnings Before Interest and Taxes.
- 4 Given easyJet's conclusion of the financial year in September, and to enable comparison between airlines, the information from its annual reports of 2000 and 2001 have been averaged.
- 5 For British Airways selling costs have been used as a proxy for advertising costs.
- 6 For KLM personnel costs Includes the costs of hired personnel.
- 7 The negative EBIT from Virgin Express partly resulted from the bankruptcy of the Belgian airline Sabena, with which it cooperated.
- 8 Whereas Eurowings uses four types of aircraft, only one type is deployed for Germanwings, the low-cost subsidiary of Eurowings.

Ryanair and easyJet exhibit higher values for financial and non-financial performance measures than their incumbent counterparts, and they even acquired former subsidiaries of more established firms, like KLM and British Airways. These results

indicate that incumbents do experience major problems in their attempts to respond to changes in their industry and imitate the success of new entrants. Several factors appeared to play a role (see Table 3).

**Table 3 Cross-case Comparison**

	Ryanair	easyJet	Virgin Express	BA (Go Fly)	KLM (Buzz)	Lufthansa (Eurowings)
Cannibalization	–	–	–	+	+	+
Conventional wisdom	–	–	–	+	+	–
Internal/external inflexibility	–	–	–	–	+	–
Incompetence & overconfidence	–	–	–	–	+	–
Access to resources	–	–	+	+	+	+
Extraction of value	+++	+++	++	-/+	--	+

The + and – signs in the table provide an indication of the extent to which each of the investigated variables exhibits a high or low value compared to the average for all airlines in our inquiry. The values granted to each airline are based on the authors' judgements of the case study descriptions and the cross-case comparison.

First of all, incumbent firms faced the issue of cannibalization. Where new entrants could expand without the need to consider effects on existing networks of flights, established airlines had to take the profits from their current network and resources into account. As Yoffie and Kwak (2001) argued, new entrants used their incumbent rivals' fear of cannibalization to their advantage, turning their opponents' assets into liabilities. Resources of large incumbent airlines, like fleets of large-sized aircraft, extensive ground facilities, and an image of high service were badly attuned to the low-cost business model. Although new brands were developed for the incumbent's low-cost initiatives, the fact that the new subsidiaries' parent firms were associated with expensive full-service flights might have been detrimental to their low-cost efforts. Incumbents realized that their low-cost offerings could have an effect on the demand for their existing network of full-service flights. Among others, this became obvious from a press announcement by British Airways, in which Rod Eddington, British Airways' Chief Executive at that time, said: "Go is an excellent airline with a fine management and workforce. As a no-frills operator, however, it simply does not fit with our full-service strategy" (press announcement British Airways, June 2001).

The prevalence of conventional wisdom on the part of incumbent firms was illustrated by, among others, their use of existing hubs. It also surfaced from Buzz's use of two types of aircraft, decreasing the efficiency of its operations. With respect to the location of an incumbent's subsidiary within the organization, the research does not provide unequivocal results. British Airways set up an autonomous entity, but it was not very successful in extracting value from its low-cost initiative beyond being able to sell it for a reasonable price considering the investments that had been made. However, as an autonomous firm, Go Fly subsequently thrived under the ownership of an investment company. The location of Buzz within the organizational structure of KLM suggests that this low-cost initiative might not have received a high enough level of independence to achieve full fruition. In light of this, the promising results of Lufthansa's low-cost initiative GermanWings offers a counterexample. Here, the incumbent provided a large degree of autonomy to its low-cost service by considering it as an investment. Similarly, our findings confirm that new entrants that are able to operate independently and thus experience a high degree of structural flexibility are very successful in exploiting a new business model.

It seems that part of the success of new entrants in the industry investigated is derived from the fact that they embraced the new strategic option earlier and took it seriously. It took incumbents a minimum of seven years after the launch of the first new entrant to respond to the new strategic option. This corresponds with the argument that incompetence and overconfidence causes incumbents' failure to initiate and em-

brace new business models (see Knott, 2003). It also aligns with Levinthal and March (1993), who propose that learning myopia causes a tendency of incumbents to ignore the long run and discount the impact of new entrants and new strategic options. Finally, it supports the argument of Foster (1986) who argues that conventional wisdom encourages incumbents to focus on their current business. The emphasis on exploitation of current products and services and existing customers leads to inertia, making incumbent firms unable to adapt sufficiently to industry changes. The problems incumbents face are reinforced by the fact that incumbents have to continuously direct their attention to multiple business initiatives. This reputedly results in a lack of focus, and sensemaking processes characterized by high levels of confusion and equivocality (Weick, 1995).

In spite of differences in access to resources among the airlines, no conclusive evidence was found regarding its relationship to the extraction of value from the low-cost business model. We suggest that this might be due to the fact that establishing a low-cost airline business does not necessarily require huge investments. Low interest rates, high availability of second-hand aircraft, off-the-shelf software, and examples of successful market leaders have enabled a large number of new entrants to exploit opportunities in the European airline industry (The Economist, 2004).

## Discussion & Conclusion

We have developed an integrative framework that explains why incumbent firms struggle to extract value from new strategic options resulting from the introduction of new business models. Several of the explanatory variables included in the model were illustrated with a case study of new entrants and incumbent firms in the European airline industry. The findings indicate that it is difficult for incumbents to fully embrace a new business model. In this case, the problems they encountered cannot be attributed to complexity, causal ambiguity, or tacitness, factors that are sometimes argued to increase the difficulty of comprehending how a system or business functions or produces some outcome (Knott, 2003; McEvily and Chakravarthy, 2002; Rivkin, 2000). Instead, the principles embedded in the business model for low-cost flying were widely available, explicit, and well understood.

In contrast, we suggest that in attempting to find a balance between the exploitation of their current activities and exploration of emerging opportunities (March, 1991; Levinthal and March, 1993), incumbents in the European airline industry searched for compromises. They did not exhibit sufficient discipline for the relentless execution of the low-cost business model. Evidence for this position stems from,



among others, the inappropriate use of multiple types of aircraft, deployment of hub-and-spoke airports situated on primary locations, and the employment of excessive numbers of personnel. Incumbent firms seemed to fail in carrying through the new business model's operational implications in all elements. In this case, small diversions from the business model had large implications, consistent with arguments from Siggelkow (2002). Due to Buzz's use of multiple types of aircraft, for example, both maintenance costs and the need for personnel training were higher, while airport turnaround procedures could be standardized to a lesser extent. Analogous to this, the use of hub-and-spoke systems at primary airports increases aircraft turnaround times due to congestion, while also raising landing fees, and prohibiting a fast pace of check-in procedures.

### Limitations & Further Research

Our study suffers from several limitations. By selecting three incumbents and three new entrants, we did not address the fact that a large number of new entrants also faced problems. Between January 2003 and December 2004, more than 25 of those firms have gone bankrupt (see [www.etn.nl](http://www.etn.nl)), suggesting that it is not only incumbents that struggle to extract value from a new business model. Besides, the extent to which the findings of this research can be generalized to other industries is constrained by the fact that only a small number of firms were investigated, and that little inside information could be obtained. The latter complicated investigations of incumbents' overconfidence or incompetence, and problems related to power and internal politics. Hill and Rothaermel (2003) pointed out that factors like power and politics serve as impediments to organizational change. They noted that organizational change, of necessity, involves a redistribution of power and influence, possibly leading to turf battles that can slow down, dilute, or halt any attempts to achieve a meaningful transformation of an organization (Pfeffer, 1992). Future studies could therefore incorporate in-depth analyses to shed light on these more hidden aspects of organizational change.

In addition, it seems worthwhile to investigate how the sustainability of the extraction of value from new business models can be harnessed. Looking at the European airline industry, new entrants like easyJet and Ryanair have been able to reap large profits, but the outlook for carriers in the low-cost segment is at least ambiguous. On the one hand, Europe has a high population density, making shorthaul point-to-point routes attractive. Besides, countries like France and Germany exhibited market shares of low-cost carriers of only 6.5 and 5.5 percent in 2003, indicating opportunities for growth (Dia/Statfor, 2003), whereas just one hundred of the 280 available European airports have a low-cost service (Tutor2u, 2003). On the other hand, new entrants face

few entry barriers, with only limited resources required to enter the industry. Recent orders for new aircraft by Ryanair (about 100 Boeing 737s) and easyJet (107 Airbus A319s) only increase the excess capacity in the industry (The Economist, 2004). Besides, some routes might be confronted with more competition from overland transportation modes like the Thalys, the ICE and Eurostar's trips through the "Chunnel" (Dennis, 2003). Low-cost airlines are also increasingly confronted with problems like rapid turnover of staff and pilot shortages (e.g. Virgin Express), old fleets (e.g., average age fleet of Ryanair is 21 years), incentives for low-cost carriers that are declared illegal by the European Union (Charleroi airport, in the case of Ryanair), more stringent passenger and environmental regulation (short hauls lead to a higher environmental burden), and renegotiation of labor contracts by flag carriers (Dennis, 2003). So, how sustainable are the profit streams generated in this industry? How can firms make sure that the low-cost business model results in competitive advantage over longer periods? A comparison with Southwest Airlines, profitable for over thirty years now despite attempts from competitors to imitate the firm (Gittel, 2003), might be a possibility here.

Moreover, the question arises as to which role alliances and joint ventures might have in incumbents' pursuits of new business models. When and why do incumbent firms cooperate with new entrants? Which firms are to benefit most from such cooperative relationships? In addition, the timing of entry in a new industry segment by incumbents has hitherto received limited attention and could be further developed. Finally, cases where industry incumbents lead the introduction of new business models, possibly by setting novel industry standards, could alter our perspective on the role of incumbents with respect to industry change.

To conclude, in this paper we reviewed a large number of factors that could explain why incumbents struggle to create value from (seemingly) new strategic options and their associated business models. These factors were captured in an integrative framework, which was illustrated by a case study of endeavors by incumbents and new entrants to capture part of the value of the low-cost segment in the European airline industry. In doing so, the paper stimulates the discussion on the contribution of incumbents and new entrants to industry change, and it shifts the attention from changes provoked by technological breakthroughs to transformations originating from the introduction of new business models.

### Note

1. Some would argue that Ryanair was an incumbent, established

in 1985 and only transformed into a low cost airline in 1991. However, its short history and small size at the time justify its labeling as a new entrant.

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### Further reading

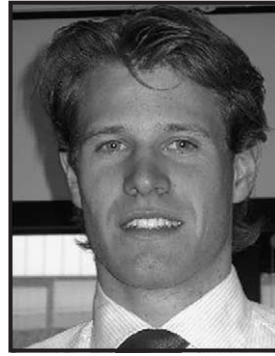
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