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## DYNAMIC CAPABILITIES AND STRATEGIC PARADOX: A CASE STUDY

Today's business leaders must constantly review and develop their firm's abilities to adapt to and benefit from external changes. Dynamic capabilities are the capacity of an organization to purposefully create, extend or modify its resource base. They enable it to exploit business, technological and market opportunities and adapt to market changes, an ability more often observed in highly dynamic industries, such as consumer electronics or telecommunications. Using the case study method, this article identifies dynamic capabilities in traditional, less dynamic industries when faced with a sudden drop of revenue. Four distinct routines emerge, namely structure and practices enduring time-sensitive strategic decision-making by the top, and a culture encouraging learning and coevolving. Seemingly strategic paradox objectives encourage the management team to question the status quo and, when managed well, transform the tensions between old and new into an ability to advance superior ideas faster.

*Keywords:* dynamic capabilities, business model, strategy, change management, leadership

Many industries have recently experienced rapid changes in the economic environment coupled with increasing reaction times of competition and higher expectations from customers. Today's business leaders must constantly review and develop their organizations capabilities, value creation processes, market strategies, relationship networks and so on. There have been at least two approaches in the literature to explain the ability of organisations to adapt to and benefit from such external changes, the business model concept (Timmers, 1998; Osterwalder – Pigneur, 2002) and the dynamic capabilities approach (Teece et al., 1997; Eisenhardt – Martin, 2000; Zahra – George, 2002). A business model is a tool to help understand how an organisation does business (Magretta, 2002; Zott – Amit, 2010). It is concerned with how it sets competitive strategy through the design of its products, how prices are set, what it costs to produce, how it differentiates itself by the value proposition, and how it integrates its own value chain in to those of other members of the value network (Teece, 2010).

Dynamic capabilities can be defined as the capacity of an organization to purposefully create, extend, or modify its resource base (Helfat et al., 2007: p. 4.). This enables it to exploit business, technological and market

opportunities and adapt to market changes (Teece et al., 1997; Teece, 2010).

Some business organisations are able to adapt to rapid external changes and maximize new opportunities while managing potential or actual loss of established markets again and again, while others are going out of business. Are there significant differences between the business models of such companies, or is the deciding factor not the business model in itself, but the ability to adopt, change, and manage the tensions created from a state of constant transitions, regardless of the business model applied. This article contributes to this discussion by arguing that an organisation's dynamic capabilities improve the firm's performance in a state of turbulence, and that such capabilities also support the process of adopting the business model. Leaders who are able to 'hard wire' such abilities into their leadership teams ensure a constant evolution of their business model. Using the case study method, we will analyse the dynamic capabilities of an organisation in greater detail to advance our understanding of this concept. We will also discuss which are some of the specific capabilities to successfully changing a business model, following the call for more investigation into the 'black box' of business model activities (Zott – Amit, 2010).

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There is an abundance of literature on business models (Timmers, 1998; Amit – Zott, 2001; Tapscott, 2001; Stähler, 2002) as well as some studies, which discuss model change, especially the model design process (Zott – Amit, 2007; Zott – Amit, 2008; Zott – Amit, 2010; Frankenberger – Weiblen et al., 2013). At the same time there is still uncharted territory in this field, for example there is limited understanding of what enables the change itself (e.g., Lindner – Cantrell, 2000) or how flexible a model needs to be to survive in the long term (e.g., Chesbrough, 2007). Only few complex models, which permit the presence of strategic tensions, have been classified and defined by scholars (Smith et al., 2010). For example Achtenhagen et al. (2013) identify capabilities inherent in companies successfully changing business models, which relates to the concept of ‘dynamic capabilities’.

The literature on dynamic capabilities focuses not only on the ability and the process of changing models, but the inherent capabilities to adapt to changes, exploit new opportunities and switch assets and organisational structures. When present, such capabilities allow shifting business models *as well as* other tangible and intangible assets of the firm creating a competitive advantage. The concept was initially advanced by Teece, Pisano, and Shuen (1997) and has attracted much attention in the strategic management literature (Eisenhardt – Martin, 2000; Zollo – Winter, 2002; Di Stefano et al., 2010). This article follows calls to investigate such dynamic capabilities in greater detail, including extending the knowledge of their dynamic nature, analysing their nature in traditional, less dynamic industries, and understanding how leaders and their teams interact to create such capabilities (Easterby-Smith et al., 2009; Kor – Mesko, 2013).

We argue that there are some capabilities, which leaders can develop without the need to change business models, and illustrate such capabilities based on data collected. Furthermore, there are also complex business models, which encourage the development and application of such capabilities. These include inherent conflicts, paradoxes, and therefore encourage an organisation to live with, manage and benefit from a constant tension to justify one against the other, compare, chose. Paradox is some ‘thing’ constructed by persons or organisations when oppositional tendencies are brought into proximity through reflection or interaction (Ford – Backoff, 1988). The strategies would be paradoxical if multiple strategies were ‘contradictory, yet interrelated’ (Lewis, 2000). For example leaders may demand from a production unit to deliver speedy, low cost service to one customer segment while achiev-

ing slower, high quality service to another, with success metrics of a higher order, such as overall profitability. At the same time they need to ensure the company’s DNA encourages learning, manages conflict resolution, and gives equal opportunities to those delivering new opportunities and those maximizing profits out of existing businesses.

## Research aim and methodology

The aim of the study reported in this paper was to answer the following research questions:

1. Which dynamic capabilities are required to recover quickly from a significant drop in demand?
2. How to differentiate between changes to the dynamic capabilities and change models?
3. What specific dynamic capabilities allow maintaining strategic paradox over a prolonged period of time?

The research methodology selected is the case study method, a scientific and appropriate way to investigate phenomena in its context, “especially when the boundaries between phenomenon and contact are not clearly evident” (Yin, 1994: p. 13.). In this research, a single case study was employed in order to identify potential new facets of dynamic capabilities and business model change phenomena. Its results may therefore not be widely applicable, but still unearth new phenomena and help develop a relatively young research stream (Teece et al., 1997; Chesbrough, 2007; Smith et al., 2010). Qualitative data collection took place by completing several in-depth interviews and content analysis of publicly accessible sources.

## Theoretical background

### *Changing business models*

Business model research has developed since the 1980s to understand organisations’ strategic framework and the identify frameworks which can help to deliver better economic outcomes. It has been argued that business models are rather vague descriptions of how a business should look like in order to be successful (Stähler, 2002). We therefore start by definition how we will use the term business model. The creation of value for customers is at the heart of many definitions, and was introduced to the literature through Porter’s value chain concept (Porter, 1985) – in fact a first attempt at describing business models. Later a business model describes the “core architecture of a firm, specifically how it deploys all relevant resources” (Tapscott,

2001), the “content structure and governance of transactions designed so as to create value” (Amit – Zott, 2001). Other definitions stress that also the various actors and their roles, as well as how they benefit from the activities of the firm should be part of a business model (Timmers, 1998). Understanding the firm as part of a value creation network, and focusing on the ability of the organisation to convert value to customers into revenues is key to our analysis. Therefore we will refer to the term business model as “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 revenue streams” (Osterwalder – Pigneur, 2002).

The business model is also not to be mixed up with strategy. For the purposes of this paper, we prefer a definition of strategy, which allows the discussion of events in the past and present. In a backward looking context, therefore, we view strategy as a pattern of choices made over time, and a plan, which can be identified behind these conscious choices by the firm (Mintzberg, 1994; Teece, 2010). Business models, in turn, should enable the firm to make such choices, and develop this plan, and therefore even in cases of drastic change of strategy stay in place. It is therefore important to understand when a firm is undergoing a change of business model or a change of strategy.

Business models have six basic functions:

1. Articulate the value proposition, that is, the value created for users by the offering.
2. Identify a market segment, that is, the users to whom the offering is useful and for what purpose.
3. Define the structure of the value chain required by the firm to create and distribute the offering, and determine the complementary assets needed to support the firm’s position in this chain. This includes the firm’s suppliers and customers, and should extend from raw materials to the final customer.
4. Specify the revenue generation mechanism(s) for the firm, and estimate the cost structure and profit potential of producing the offering, given the value proposition and value chain structure chosen.
5. Describe the position of the firm within the value network (also referred to as an ecosystem) linking suppliers and customers, including identification of potential complementors and competitors.

6. Formulate the competitive strategy by which the innovating firm will gain and hold advantage over rivals” (Chesbrough, 2007).

It can be argued that companies in fast changing industries may change their model so rapidly, that the ability and processes to induce and manage the change require an established business model in itself. Following the above definition by Osterwalder and Pigneur (2002) a company employing different processes with a new architecture or partner relationship to deliver value to segments of the market would be an *evolution of the existing business model*, not a new one. A simple change of a success metric would be purely a *sideways shift of the model* (McGrath, 2010). Concepts that allow evolving from a specific state of their business model to a new and improved state have also been termed ‘change models’ by Linder and Cantrell (2000). Change that does not alter the fundamental *modus operandi*, e.g., a geographical expansion, is based on a ‘realization model’. An established process to constantly change, such as companies regularly acquiring and improving additional brands was termed renewal model. Firms continuously expanding into new ground with opening new markets, adding new elements to the value change, or adding new operations without losing any of the existing ones need an ‘extension model’. And ‘journey models’ are applied by companies deliberately leaving their status quo behind and embarking on a path towards a new business model. This could be a regional player developing into a global entity, including establishing presence in many countries, and shifting their value proposition to include an increasingly global reach and capabilities (Lindner – Cantrell, 2000). This taxonomy is helpful to determine if changes require adjusting the business model itself, and to what extent. Also the presence of such a model in a company may determine the success of the change process.

#### ***Dynamic capabilities of a firm***

Frequent changes in the business environment or new market opportunities with less time to act require companies to constantly renew their ability to react. The organisation’s capabilities and resources, its value creation processes, its product and service offering and revenue generating capabilities, to name only a few, need to be shaped to be able to adopt quickly and effectively. This is most needed in uncertain trading environments, where companies need to enrich and reconfigure their capabilities as well as develop new ones (Sirmon et al., 2008). Such capabilities have been discussed in the business model literature, which agrees that models need to change as the company reacts to changes in their envi-

ronment or exploits new opportunities (Hamel, 2000; Lindner – Cantrell, 2000). The strategic management literature terms these “Dynamic capabilities”, which include all capabilities and organisational and managerial processes with which a firm exploits business, technological and market opportunities and shifts its assets and organizational structures adapting to market changes and company growth (Teece et al., 1997; Teece, 2010).

The objects of adoption are the assets and organizational structures. The business model of an organisation can be regarded as asset in itself, and the capability of creating value, the structure of the value chain as well as revenue generating mechanisms are arguably among the most important assets of a firm. Dynamic capabilities are, in fact, the ability to design and evolve business models, rather than the business model itself. Following the definition above, changing business models may cause additional burden on the organisation to manage change, and therefore it would be beneficial for a company to have resources and capabilities to adjust, but at the same time to have a business model that may not need to be changed each time a new opportunity arises. Such capabilities depend on the firm’s ability to constantly review and improve the relationships and loops between the variables inside a business model (Casadesus-Masanell – Ricart, 2010).

Achtenhagen et al. identify what is needed for ability to change business models after completing a longitudinal study of 25 SME firms (Achtenhagen et al., 2013). The first critical capability is an entrepreneurial orientation towards experimenting with and exploiting new business opportunities. Such companies continuously obtain information about trends, markets and competitors through market research, informal and secondary sources. They encourage the development of new ideas and provide freedom for the development of new business ideas. While may lead also to mistakes, the culture handles this as an opportunity to learn from them. Secondly, Resources and capabilities are used in a balanced way. Although focusing on new opportunities, the existing business needs are not neglected. Also development is spread over several resource bases. Financially, the company focuses on a steady cash flow, low cost levels and is ready to reinvest profits for further expansion. The third ability is to achieve an active and clear leadership, a strong corporate culture and employee commitment. This includes encouraging employees’ contribution to ideas and constructive questioning. The company’s values are developed jointly, and clearly communicated. A visible and credible leadership style is being practiced and employees are involved in strategizing activities (Achtenhagen et al., 2013).

### *Managing strategic paradoxes*

In some cases attracting new segments requires new processes, or marketing mix elements, which put existing segments at risk. This would be the case when delivering value presently requires architecture and processes that are unable to deliver value to new segments. When the strategies applied are seemingly contradictory to each other, such as applying a low-cost strategy and a high value strategy in parallel, they are termed paradoxical strategies. *Strategy* refers to a set of products or services and how they are taken to market in order to compete. *Paradox* is some ‘thing’ constructed by persons or organisations when oppositional tendencies are brought into proximity through reflection or interaction (Ford – Backoff, 1988). The strategies would be paradoxical if multiple strategies were ‘contradictory, yet interrelated’ (Lewis, 2000). The strategies can involve inconsistent or contradictory use of products, markets, technology or other resources, which reinforce each other and lead to long-term organisational success. Companies successfully managing such situations are able to apply different strategies to different segments, and excel under such tensions. It is therefore important to understand more about such complex business models, as they are more critical in highly competitive, fast moving industries (Smith et al., 2010).

The concept of seemingly conflicting strategies has been illustrated by Williamson (2010) who presents the strategies by a company under pressure from competitors to provide innovation at low cost. Although an established player, it is faced with the challenge to deliver high technology at low cost, and variety and customization without a significant price premium, and at the same time over low prices to move into mass markets. Such cost innovative strategies had been displayed by new market entrants from countries such as China and India and became a threat to be taken seriously. The disruptive potential of such cost innovation called for some radical re-thinking about future business models. Achieving this required to rethink the supply chain, transfer value-for-money production to emerging economies and restructure reporting lines and improve know how of local staff to turn in to a truly global organization (Williamson, 2010). The challenge in such situations is that organisations may have become complacent, and unable to step out of their circle of thinking. Paradox itself has a power to generate insight and change, and is therefore an important contribution to management thinking (Eisenhardt – Westcott, 1988).

Marianne Lewis reviewed paradox identified in organisation studies, and proposed that the phenomena identified belong to one of three groups: Paradoxes of

learning, organizing and belonging. Learning paradoxes take place when past understandings are critiqued, questioned, and sometimes dismissed while allowing innovation, developing new concepts and constructing new and more complex frames of reference. The ability to transform the tensions between old and new often is called to action by shock as well as the ability to openly communicate and enforce the following internal battles in order to advance the organisation. Paradoxes of organizing discuss the balance between control and flexibility. Firms need to control yet encourage opposing forces to engage in conflict, avoiding both extreme chaos and rigidity, and ensure that superior ideas are being advanced (empowerment). Tools for this include agreement on superordinate goals and humour. Lastly, paradoxes of belonging relate to the ability of groups to value the diversity of their members and opinions, as well as the interconnections with other groups. It sets a framework, which allows members to focus on the tasks at hand with low power discrepancies within the group, valuing differences. It avoids tribalism or destructive conflict between groups, which has become an essential capability in the age of globalisation (Lewis, 2000).

Managing such tensions requires an influential leader capable of thinking paradoxically, guiding a regular reflection within and among groups and help the organisation to examine and not suppress tensions (Lewis, 2000).

## Case study and analysis

### Situation/Challenge

The company selected for the case study is an airport confronted with the bankruptcy of their largest airline customer. With around half of the total revenues lost over night, the financial stability of the firm was at stake, and the leadership team had to transform the company to return to a stable growth path. The case is well documented in the scientific literature (Linkweiler, 2013; Bilotkach et al., 2014), however additional publicly available company and industry data as well as management interviews were used to allow deep insights. What makes this case unique is the fact that the company was able to react quickly, compensate

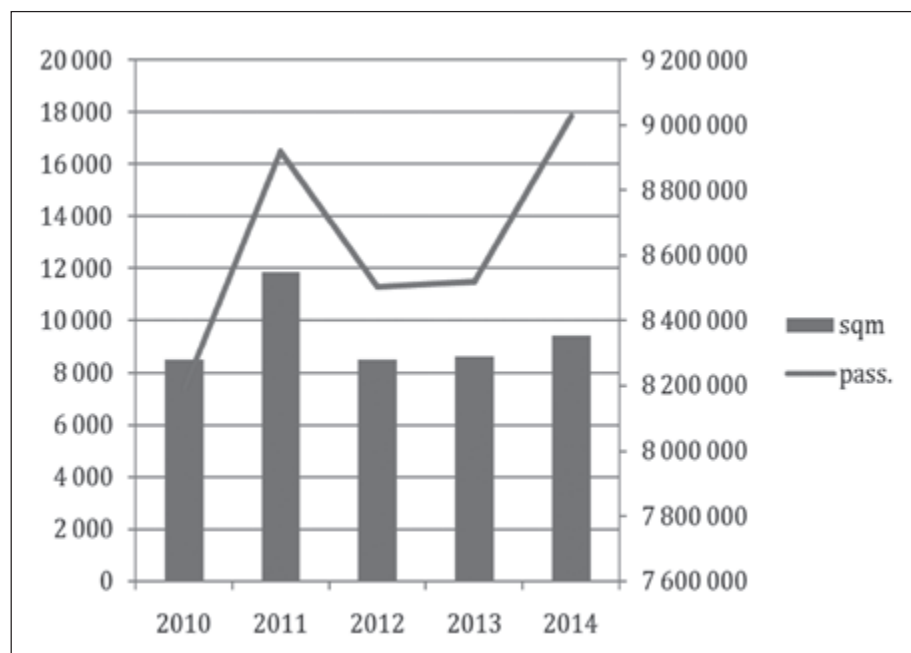
the lost business, and fully recover (Linkweiler, 2013) while most other airports – there are at least 37 similar cases documented (Redondi et al., 2012) – fail to recover within the first years.

### The company

Budapest Airport Zrt. is the operator of Ferenc Liszt International Airport in Hungary under a long-term concession agreement and owned by a private consortium. The airport was acquired from the state in December 2005, when 75% of the company was sold at a price tag of 1.8bn EUR, the biggest privatisation in Hungary's history (hvg.hu, 2005; hvg.hu, 2006). Later, the remaining 25% were also sold making it a fully privately owned company, managed by the majority shareholder, the German AviAlliance GmbH (Budapest Airport, 2009). By 2011, the airport opened its Sky-Court shopping centre located in the main departure hall, and fulfilled its commitment to invest into this and other modern infrastructure (Budapest Airport, 2011). The building won several architectural awards, and featured 39 catering and retail outlets will offer their services on 4300 square meters, including the largest unit, a 1400 square meter walk-through duty free shop operated by the German company Heinemann (ACI Europe, 2011). The *Figure 1* shows the airport's passenger volume (2014: forecasted) and the square meters of retail space available.

Figure 1

Total in-terminal retail space and total passenger numbers at Budapest Airport  
(End-of-year data, 2014: forecasted).



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In February 2011, the airport lost its main customer, Malév Hungarian Airlines, which stopped operations after it found itself unable to comply with a EU Commission ruling to pay back illegal state aid. With Malév delivering almost half of the company's revenues, this situation put the investment of 1.8bn EUR at risk, and sent a shockwave through the organisation. For comparison, the company's finance cost was 112m EUR at the end of 2011 with revenues of 291m EUR. This heavy burden required fast and, in some cases, seemingly contradictory strategic decisions by the management, in order to ensure the company's stability and satisfy investors' expectations for the remaining 74 years of this concession. (Table 1)

company also rented a number of buildings to Malév, including office buildings, a crew centre, a flight training centre and so on.

The company had to move quickly to reduce cost burdens, maximize income from its existing customers, as well as backfill the massive gap in both aeronautical and non-aeronautical revenues. The actions turned into a success story. One year after the collapse, the airport had lost only 5% of passengers, which its shareholders praised as a "considerable achievement" (Linkweiler 2013). The airport's financial statements showed that earnings before tax (EBITDA) dropped by only 2% in the first year of crisis, and then started increasing by 31% in year two, with revenues being up 7% year-on-

Table 1

Key financial metrics – Budapest Airport Zrt. 2011–2014

	Passengers	Revenue (EUR k)	Growth (%)	EBITDA (EUR k)	Growth (%)
2014*	9,155,961	N/P	–	N/P	–
2013	8,520,880	180300	7%	126200	31%
2012	8,504,020	168615	-2%	96200	-2%
2011	8,920,653	171421		98200	

Source: Budapest Airport (2013), AviAlliance (2014), Budapest Airport (2015). \*: 2014 financial results were not published at time of writing.

Table 2

The company's main revenue sources are fees paid by airlines and passengers, so *aeronautical revenues*, and income from 'other' activities including the operation of car parks, renting real estate and retail space, the *non-aeronautical revenues*. In 2011, Malév carried 3 million passengers, 34% of the total, including 1.5 million transfer passengers (portfolio.hu, 2012). In addition, several partner airlines announced not to serve the airport any further, since their passengers lost the possibility to transfer on to Malév flights. In total, over 40% of the aeronautical revenue was at stake. The airport's non-aeronautical revenues, accounting for 33% of the business, were also under threat. The company had lease agreements with shops and catering units in both of its terminals, 1 and 2, however Terminal 2, host to Malév, suddenly had less than half the passengers, while terminal 1 was overcrowded. Both empty and crowded shops are a major concern and concessionaires were demanding correcting action. The

Nine Business Model Building Blocks

Pillar	Business Model Building Block	Description
Product	Value Proposition	Gives an overall view of a company's bundle of products and services.
Customer Interface	Target Customer	Describes the segments of customers a company wants to offer value to.
	Distribution Channel	Describes the various means of the company to get in touch with its customers.
	Relationship	Explains the kind of links a company establishes between itself and its different customer segments.
Infrastructure Management	Value Configuration	Describes the arrangement of activities and resources.
	Core Competency	Outlines the competencies necessary to execute the company's business model.
	Partner Network	Portrays the network of cooperative agreements with other companies necessary to efficiently offer and commercialize value.
Financial Aspects	Cost Structure	Sums up the monetary consequences of the means employed in the business model.
	Revenue Model	Describes the way a company makes money through a variety of revenue flows.

Clarifying Business Models: Origins, Present, and Future of the Concept by A. Ostwald, Y. Pigneur, and C.L. Tucci

year. The company's recovery process was symbolically completed after it could report to have served 9.1 million customers in 2014, more than even during the best years when Malév was still operating (see Appendix I).

The changes will be presented in the structure following the nine business model building blocks proposed by Ostenwalder, Pigneur and Tucci (2005). Only data related to the three-year period between January 2010 and December 2012 was included. (Table 2)

The value proposition to its customer airlines is to offer reliable infrastructure able to handle flights and passengers 24 hours/day without constraints, at a location where there is demand for air services. New value creating services were added, such as low cost aircraft parking allowing passengers walking onto the aircraft. New infrastructure was built upon request of one of the new entrants. New boarding gates offered sufficient capacity to handle the boarding process for passengers of 12 departing planes. A new pricing structure was developed, which included high incentives for new entrants – which were mainly low cost carriers. Also, several services were debundled, allowing the airlines to stop paying for services they were not using, for example fast track security, passenger bridges and passenger bussing. This was only possible by redesigning operational procedures and changing processes in cooperation with stakeholders such as local authorities and other suppliers.

The organisation targets several B2B segments. The first group are airlines operating a 'hub-and-spoke' system at the airport, such as Malév with its local sub-contractors. This system allows passengers to fly from their origin to Budapest (along the 'spokes' of the route network), transfer at the airport (the 'hub') and continue to their final destination (along another 'spoke'). This segment is essential to achieve significant growth, without this system such passengers would not use the airport at all. In the case of Budapest this accounted for around 20% of the demand. Further segments are foreign airlines, which deliver 'only' direct passengers as well as attract local passengers to fly to their own hubs and beyond. A further segment is low cost carriers marketing aggressively to price sensitive tourists and business people, followed by charter carriers using the airport as an element of their packaged holiday products. One of the segments was lost completely (the national hub-and-spoke airline), while another segment – the low cost segment – grew from 22% to 50% in market share.

Two teams were in charge of customer contact, one focusing on the commercial relationship and a second, larger team, delivering the services required at

the agreed standard. The links to customer firms were very close for the hub-and-spoke segment, and less close with other segments, which seemed to be more driven by market demands rather than service quality, and were unwilling to commit to longer term relationships. The relationships with several key strategic customers were intensified, including negotiations about long-term agreements, starting from the period of crisis. Higher frequency of contact, and increased value of information transmitted to potential customers was observed.

The activities and resources of the company to deliver value were slightly adjusted. For example making passenger fast track a pay-for-use service required the installation of new passenger lanes and payment kiosks. Some procedures needed to be adjusted, such as more efficient re-fuelling processes or speedy passport checks for stewardesses. After a reduction of administrative staff, teams had to learn to cope with time pressure and very demanding new customers.

In order to address the issue of an underutilization of buildings, the management decided to temporarily close one of the two terminal buildings, regardless of the numerous services and businesses operating there under a lease agreement. The closure led to increased efficiency in the remaining building, and even stores soon reached the originally forecasted volumes, allowing additional stores to be opened. In 2014 alone, the company attracted a supermarket, a telecommunications shop, a travel electronics and accessories store, a Victoria's Secret branded cosmetics and lingerie store and opened a new 190sqm roof top lounge and bar. While total retail space has still not reached previous levels (see Figure 2), the ratio of passengers to floor space is more attractive, leading to increases in productivity and rental income.

The core competency of the company continued to be operating airport infrastructure. Following a path chosen well before the crisis, the firm further reduced its scope to concentrate on core activities. This involved, for example, outsourcing of all activities related to vehicle maintenance, facility management and cleaning. Several key services of the value chain are being provided by third party entities, a fact that increases the ability of the airport to adjust the service offering if needed. For example, low cost airlines required additional services for charging excess baggage, which third parties were able to offer in short time under an agreement with both the airport the airlines. The business model prior to the crisis included an on-going process to outsource non-core activities; therefore this was not changed due to the events of 2011.

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While there were no significant changes to the network of partners (such as those servicing and maintaining aircraft or checking-in passengers), it is worth to discuss the cost structure and revenue model in greater detail. Cost cutting measures lead to the cost budgets for 2012 to be reduced by 25%. The company's links to employees representatives (supported by the local labour law) allowed a fast reduction of staff by some 250 people only two months after the event, and a further 100 headcounts could be reduced as they were on leased contracts. Only in 2009 was the last strike at the airport's company (Index.hu, 2009), but since then the new management was able to lead the organisation without the threat of strike. Contracts with main suppliers were renegotiated, and infrastructure used by the operation and tenants was reduced to increase efficiency (Linkweiler 2013). At the same time, revenues only dipped by 19% reducing the operating profit from 83k to 79k Euro. Finance costs, however, remained unchanged.

The above section discusses the most relevant data related to the building blocks of the company's business model. While in many cases the magnitude of change was drastic, such as cutting investment volume into half, it appears that the basic model of doing business has not changed significantly. In order to understand how the company managed to identify, decide and implement such changes, we need to look into more data about the organisation's written or unwritten processes and approaches how to go about change. In the following part, we summarise information on the capabilities to exploit existing assets and/or shift assets and organisational structure to manage this crisis.

*Information flow to/from top management.* The CEO encourages a culture of open communication and feedback. His office is located at the centre of the administrative offices (rather than on top of them), and when not in meetings follows an open door policy. Employees are invited to participate and ask questions during informal 'breakfasts with the CEO'. Communication to employees takes place via a staff newspaper, as well as internal communications ambassadors in each business unit, tasked to disseminate important information quickly and informally. This tool is often faster than cascading information through management layers and avoids rumours spreading.

*Smaller, faster decision making units.* The CEO meets weekly with a small selection of Executive board members, to make decisions. This institution was created during the crisis but stayed in place afterwards. Business controllers were assigned to each business unit, as part of that organisation, ensuring that re-

sources are available to prepare decisions and that they are in line with financial policies, such as investment policies or cash flow targets. CFO received additional veto rights over even smaller expenses for a temporary period to introduce a culture of rigour and reduce unnecessary expenses. Some of these rights were retained after the crisis.

*Organisation following market structure.* A new organisational structure was put in place to allocate business units to customer segments. For example the same executive director was responsible for the aeronautical operations and generating aeronautical revenues, another executive director for building, leasing and operating stores inside the terminal and so on. Once new business opportunity was identified which required a change to the value delivery, processes could be adjusted quickly to meet customers' requirements. In fact, this change took place in 2009 already, at a time when first signs of Malév's difficulties became visible, in foresight of what was ahead (Linkweiler 2013).

*Close links to shareholders.* The company's majority shareholder is also providing the top management of the company, guaranteeing faster decision making and a trust based relationship between owners and executives.

*High loyalty.* Bonus schemes and fringe benefits are in place for all administrative staff and a modern HR culture ensures development opportunities and open performance management. During the crisis period, a bonus system was introduced to blue collar workers, too, replacing additional pay triggered by certain shift patterns. This created loyalty among high performing teams and increased awareness of company, team and individual performance on all levels of the organisation. The selection of employees emphasises a wide range of backgrounds, for example the airline sales team members joined from airfreight, ground handling and the airline industry, and thus have a deep understanding of their customer needs.

*Approach to learning.* The management's approach to problem solving allows a time for alternative proposals and open discussion, while respecting decisions once final. Mistakes are seen as an opportunity to improve. The responsibilities of executives are changed from time to time, which increases an understanding of the overall business as well as strengthens the coherence of the team.

Finally, the research shed light on several instances where the company is pursuing seemingly conflicting strategies. First, the general approach to investment was extremely conservative, stopping all non-essential projects. On the other hand, incumbent custom-



ers demanded new boarding facilities, which required releasing non-planned capital expenditure or drawing planned investment from other business units, seemingly a paradox strategy.

The management developed the capability to identify and decide on investments related to new business opportunities while being very strict on any other investment at the same time. This involves reviewing available capital on a regular basis and can lead to tensions inside the organisation if not managed with care. Another paradox strategy followed may be seen in the difference between the state of the art architecture of the SkyCourt building opened in 2011 and the tin buildings placed on the concrete to serve low cost boarding gates. Both projects were planned and implemented by the very same team, however their design and approach to planning and execution could not be more different. Third, the pricing strategy discussed above included two strategies, which create tension inside and externally. Typically, airport prices are determined by distributing the costs of capital investment in infrastructure among its users, the airlines. With less passengers using the infrastructure, the prices overall had to be increased. Some of the existing customers were, in fact, enjoying near monopoly benefits after the exit of a major competitor, and were able to pass on increased airport costs to their customers. On the other hand, the airport needed to attract new business quickly, and most potential opportunities were among the price sensitive low cost airlines. Therefore solutions had to be found to be price competitive while at the same time increasing the overall yield per passenger. The sales teams were negotiating with low cost airlines about savings of several cents per passengers at one moment, and with a middle-eastern carrier ordering first class facilities for their new daily service at the next.

In the next section, we will analyse and discuss the above data in order to answer the research questions in turn.

## Discussion

Firstly we will identify the dynamic capabilities applied in the above case, and discuss how such capabilities can positively influence a company's recovery from a significant drop of demand. Next, we will address the question of change: Has the underlying business model changed, was there a "change model" applied, or is even the change part of the business model. Have dynamic capabilities changed before or during the crisis under discussion. And: Which dynamic capabilities are required to sustain strategic paradox over time?

Dynamic capabilities cover the internal abilities of the organisation to change the metrics in their business model, to integrate, reallocate and reconfigure resources within the company, which have led to superior performance. The organisation had such inherent capabilities or took care to develop them to cope with the change. The above data contains (at least) four distinct capabilities, time-sensitive strategic decision-making, flexible resource allocation, release of resources, and coevolving of different parts of the firm.

*Time-sensitive strategic decision-making.* The established routine of frequent leadership gatherings, the creation of smaller, fully empowered decision making teams, and the close relationship between management and shareholders has led to an ability to make strategic decisions at a fast pace. A regular routine to pool the management teams skills and functional backgrounds, discuss within clear time limits the options, and make choices which shape the future strategic moves has allowed to go from challenge to implementation in less time. By involving all crucial areas of the business, required changes to existing resource pools can be reviewed. This requires a constant flow of information to the top, open communication channels with middle management, and a capability of leaders to absorb and have ready the required information for decision-making.

*Flexible resource allocation.* The ability to reconfigure existing resources inside the organisation is a key capability during periods of change. For example when customer requirements need the development of infrastructure at short notice, too strict allocation of resources slows down reaction time and may lead to loss of market share. Seizing business opportunities requires the ability to allocate manpower, capital and management time to key issues. This requires routines, which delay final decisions for resource allocation, and maintain a readiness of individual business units to let go of initially planned investment, for example, allowing another unit to maximize benefits resulting from a change. Part of such routines can be hard coded, for example in business plans and approval processes, which approve use of resources tied to certain conditions or additional approval processes, and close control of a central unit. In the case discussed above this was through the role of and authority given to business controllers. Many routines however are developed through organisational learning and a certain corporate culture, which develops over time.

*Release of resources.* The case discussed highlighted the importance of releasing resources to adjust to market conditions. Human resource planning

routines can consider such situations in advance by having a certain portion of the work force on temporary or agency contracts. Contracts with suppliers can include opt-out or early termination clauses in certain cases.

*Coevolving of different parts of the firm.* Knowledge and skills present in different units of the firm may lead to superior outcomes when combined, even for temporary times. The ability to identify and pool capabilities of the entire organisation for specific challenges at hand ensures that synergies are identified and may become a resource in itself. By cooperating, the various parts of the company are developing their own resources (such as knowledge), and thus evolve, while overall the combined abilities achieve better results. In the case above, merging operations and commercial teams improved the firm's ability to quickly assess the operational needs of potential new customers, develop associated products and offer them with appropriate profits.

These dynamic capabilities seem especially important in dynamic and less predictable industries. The flexible allocation of resources, the ability to lose (or gain) resources quickly, and an ability to exploit opportunities through synergies while allowing the firms units to coevolve have allowed to quickly 'weather the storm' of an external demand shock in the case discussed. The routines discussed are rather simple, require little description and can be communicated even verbally over a wide area of the firm.

Fewer rules make it easier for managers to focus their attention during turbulence and overwhelming amounts of data (Eisenhardt – Martin, 2000), and they are less likely to be forgotten over time (Argote, 1999). It should also be noted that actual and perceived crises may, in fact, be a blessing in disguise if they have brought forward and implemented additional dynamic capabilities in the organization. This importance of crises has been confirmed in a long-term study of learning processes in Hyundai (Kim, 1998).

Also, such capabilities are most needed during change, therefore too complex sets of rules require frequent adjustment, which in turn does not allow the routines to deeply penetrate management thinking. In fact, such capabilities demand that the firm engages in experimenting and learning, and further develop its abilities. A certain part of them are hard coded, others are manifested in the day-to-day behaviour of management, routine of decision-making processes and informal approaches to resource allocation. Dynamic capabilities that have been developed during a period of high dynamism may be under threat, once the in-

dustry gets less dynamic again (Eisenhardt – Martin, 2000).

Was the underlying business model changed? During the period described in the data, the company underwent significant change, and there is no doubt that some fundamental changes took place. A drastic reduction of costs, a closing of production facilities, a loss of a complete customer segment has fundamentally affected the way of doing business. However one may argue that the fundamental business model was hardly touched. The company's value proposition is still to offer infrastructure and services at a high quality level, access to an attractive market, and pricing concepts to allow B2B customers a profitable operation, for example. The metrics have changed, and the allocation of resources among activities, but neither have entirely new business activities been started, nor has the company reorganised their value chain. It appears that the model in place was robust, still complex enough to allow fast reaction to changes in the market place, and only success metrics shifted sideways (McGrath, 2010).

The model is complex in the sense that it is externally aware and able to develop. Such a firm is on the lookout for new ideas and technologies, has relationships with outsiders in place to help satisfy such needs, and has frequent exchanges with suppliers and customers to plan their activities in concert with the activities (see Type 4 models as proclaimed by (Chesbrough, 2007)).

Was then the ability to react built into the model? In the sense of Linder and Cantrell (2000), this company did neither change the underlying operating mode, nor actively seek the development. It was a reactive change, which was expected but not planned (Linkweiler, 2013). Therefore it is unlikely that there was a specific 'change model'. Consequently, it can be argued that the abilities to maximize the opportunities given by an unforeseen change in demand are not founded in the business model itself, but the dynamic capabilities inherent in the organisation. This is more likely to be the case in industries which otherwise are undergoing less change, including capital intensive industries, and those relying less on innovation and technology change, for example.

Several dynamic capabilities seem to have been developed during the crisis itself. For example the speed of strategic decision-making was increased when the leadership realised that the existing processes were too slow to cope with the volume and urgency of making necessary choices. However most other capabilities were in place before the external crisis. In fact, the fast

recovery was most likely driven by the fact that the organisation already owned the necessary tools. This underlines the importance for companies to shape up the existing processes and routines in anticipation of change.

Several of the strategic choices made contained inherent conflict, and such paradoxical strategies require additional abilities of the organisation. There may be contradictions between several paths taken, and one approach may, in fact, be threatening the other. For example while exploring new opportunities, aiming at new customer segments and developing future products requires risk taking and fast decision making, exploiting existing products roots in risk minimization and hierarchical structures (Smith et al., 2010). The company discussed in this article chose to maintain central and hierarchical structures but at the same time focused on fast decision-making and a speedy flow of management information to retain the ability to change course if needed. Another risk of paradoxical strategies may be people being unable to cope with applying different set of rules to very similar issues, such focusing on standard service delivery for existing clients while developing new services and thinking out of the box for new ones.

One model that was proposed to manage this tension is the learning organisation. It understands the need to change and adapt while at the same time perform and align to well working practices (Smith et al., 2010). In the present case, the company discussed here combined a leader-centric, hierarchical approach to decision-making, while encouraging open communication. Having all information available to the leadership team requires both a regular flow of management information but also the readiness of middle and senior management to openly communicate both positive and negative things to the top. Furthermore, the organisation must ensure a high flexibility of resource allocation or – if needed – withdrawal. This was achieved through teamwork and good understanding of each other's challenges.

In fact, internal debates and tensions may be the key ingredient to innovation and change in industries undergoing change, and appropriate management processes and structures in place may become a competitive advantage over other players. Examples of such organisations include Southwest Airlines, which managed to uphold a business model for decades that delivered strict cost management and exploiting existing businesses while also encouraging challenging the status quo and explore new business opportunities (Gittell, 2000).

## Conclusion

Companies experiencing an unusual degree of change may find that their organisation's capabilities are unfit to cope with the challenges and opportunities at hand. By capabilities we refer to the capacity of an organization to purposefully create, extend, or modify its resource base (Helfat et al., 2007: p. 4.). This includes routines, rules, behaviours, structures hard or soft coded into the organisation of a firm. Today's business leaders must constantly review and develop their organizations capabilities, value creation processes, market strategies, relationship networks and so on.

In the case described in this article, a firm's leadership team has developed the organisation's ability to adopt to and, in the long term, benefit from external changes brought about when their largest customer went out of business. Such dynamic capabilities enable firms to exploit business, technological and market opportunities and adapt to market changes (Teece et al., 1997; Teece, 2010).

While changing a large number of success metrics and reallocating resources within the value change significantly, no major change of the underlying business model could be identified. The analysis therefore focused on identifying the capabilities present in the organisation. There were four distinct routines, namely structures and practices enduring time-sensitive strategic decision-making by the leadership, a flexible allocation of capital and manpower resources, the ability to release resources no short notice, and a culture and processes which encouraging learning and coevolving of different parts of the firm.

At the same time, the leadership made a number of seemingly contradictory strategic choices, termed strategic paradox, which may cause tensions and destructive processes inside the firm (Ford – Backoff, 1988; Lewis, 2000). These have been avoided by developing dynamic capabilities (e.g., fast flow of information) allowing managing these effectively. In fact, the crisis itself may have developed capabilities, which resulted in competitive advantages in the long-term.

The findings expand our knowledge of dynamic capabilities, following calls for more research into their role in traditional, less dynamic industries (Easterby-Smith et al., 2009; Kor – Mesko, 2013). We put forward the view that the ability of companies to react to and benefit from sudden change does not always require changing business models, but a limited number of specific routines and processes. We argue that there are some capabilities, which leaders can develop without the need to change business models, and illustrate

**Budapest Airport Zrt., Consolidated Income Statement  
(2010–2012)**

(in EUR k)	for the period ended 31 December 2010	for the period ended 31 December 2011	for the period ended 31 December 2012
Aviation revenues	103723	114940	115725
Fuel supply revenues	94337	120119	67745
Rental revenues	51624	50487	46651
Other revenues	5489	5994	6239
Raw materials and consumables used	-92405	-118025	-67386
Utility expenses	-8479	-8407	-8809
Employee benefit expense	-29761	-30942	-26060
Depreciation and amortization	-17252	-21441	-21306
Other income, costs and expenses	-13721	-29429	-33785
Operating profit	93555	83296	79014
Finance income	619	1569	1814
Finance costs	-113023	-111793	-114075
Loss before income tax	-18849	-26928	-33247
Income tax expense/benefit	4060	-23503	-2169
Loss for the period	-14789	-50431	-35416

Source: Budapest Airport (2012, 2013) Media References

such capabilities based on data collected. Furthermore, there are also complex business models, which encourage the development and application of such capabilities. These include inherent conflicts, paradoxes, and therefore encourage an organisation to live with, manage and benefit from a constant tension to justify one against the other, compare, chose.

There are a number of limitations of our analysis. Firstly, the case study approach itself does not permit to generalise findings or even suggest its applicability to other industries. This study aims to further the discussion by additional insights and also provides some data that may be of value for future studies. Secondly, the data was collected after the crisis, and is based on post event management interviews. Pre-crisis data was available only through press releases and company documents.

There are some managerial implications of this study. Firms in industries with limited dynamics may be well advised to ensure the relevant dynamic capabilities are in place to be prepared in case of unprecedented change. In fact, the benefits of a crisis may lie in the ability to develop an ability to innovate and rethink the resource allocation. Also, when faced with the need to exploit existing markets while exploring new oppor-

Table 3

tunities, which may lead to seemingly paradox strategic choices, the organisation needs to be able to handle the related tensions. Appropriate communication channels and learning mechanisms need to be in place to allow an organisational stability that can maintain such pressures over time.

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