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Breaking the Paradigm of Sensing, Seizing, and Transforming – Evidence from Axel Springer

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Key Words

Dynamic Capabilities; Incumbent Adaptation; Resource-Based View

Abstract

Dynamic capabilities have typically been conceptualized as sensing, seizing, and transforming. This article explores the interplay of these procedural dimensions employing a longitudinal case study of Axel Springer, a leading media corporation that has exercised dynamic capabilities to convert from a print publisher to an internet company. Insightful evidence is produced from interviews with current and former top managers. The case study shows iterations, overlaps, and interconnections between sensing, seizing, and transforming. Sensing-by-seizing is introduced as a dynamic capability to seize concrete opportunities while concurrently sensing them. A conceptual model furnishes implications and recommendations managerial decision-making.

1. Introduction

The concept of dynamic capabilities aims to explain what processes, abilities, or routines enable the firm to thrive amid changing environments (e.g., Teece et al., 1997; Eisenhardt & Martin, 2000; Zollo & Winter, 2002; Winter, 2003; Teece, 2007; Helfat et al., 2007; Schilke et al., 2018). As such, dynamic capabilities also contribute to economic stability and social cohesion as they enable incumbent firms to adapt to a change in their contextual setting.

The conceptual introduction of dynamic capabilities to the literature was followed by a multitude of empirical contributions. Typically, such studies follow the procedural dimensions of Teece (2007) that specify dynamic capabilities as sensing, seizing, and transforming (Schilke *et al.*, 2018). Accordingly, many studies tend to construct incumbent adaptation in rather discrete and linear steps from the identification of opportunities and threats to the building up or alteration of resources, and finally to the transformation of the organization (e.g., Gebauer, 2011; Mousavi & Bossink, 2017; Vézina *et al.*, 2019). We believe that change in the real world is not that discrete and linear over time. Hence, our research question is: How do sensing, seizing, and transforming interplay over a longer time period of incumbent adaptation to changing environments? This proposes an extended perspective on dynamic capabilities and addresses calls in the literature to recombine, revise, and extend the existing procedural dimensions (e.g., Protogerou *et al.*, 2012; Schilke *et al.*, 2018).

We explore our research question by applying the critical case approach (Flyvbjerg, 2006; Yin, 2018) to a longitudinal study of Axel Springer, a leading international media corporation that has managed to successfully convert from a print publisher to an internet company in the past two decades. Interviews with 18 current and former top managers, including five members of the board as well as peers covering the entire observation period, allowed us to gain rich and insightful data on the case.

The Axel Springer case shows that incumbent adaptation over time is a less discrete and linear organizational phenomenon than the pertinent literature suggests. The firm began transforming before exercising any sensing and seizing activities. It sensed opportunities while already being in the process of seizing them, and when building up new businesses, it constantly iterated between sensing, seizing, and transforming.

With this study, we provide three main contributions. First, we find support that incumbent adaptation is an iterative process with overlaps and interconnections between sensing, seizing, and transforming. Second, we introduce the concept of sensing-by-seizing, which describes the dynamic capability of gaining knowledge through action. Third, we present a conceptual model for dynamic capabilities in incumbent adaptation that furnishes implications and recommendations for managerial decision-making.

2. Theoretical Background

Rooted in the resource-based view (e.g., Penrose, 1959; Wernerfelt, 1984; Barney, 1991), dynamic capabilities are the firm's processes, abilities, or routines to purposefully create, extend, modify, or release its resources to address changing environments (e.g., Teece et al., 1997; Eisenhardt & Martin, 2000; Helfat et al., 2007; Schilke et al., 2018). Teece (2007) has further advanced the concept by specifying dynamic capabilities as sensing, seizing, and transforming. In particular, the micro-foundations of sensing capabilities are "analytical systems [...] to learn and to sense, filter, shape, and calibrate opportunities [...] and threats" (Teece, 2007, p. 1322, 1326); those of seizing capabilities are "enterprise structures, procedures, designs and incentives for seizing opportunities" (p. 1334); and those of transforming capabilities are "continuous alignment and realignment of specific tangible and intangible assets" (p. 1340). Subsequent empirical research has typically constructed its findings within these procedural dimensions of dynamic capabilities (Schilke et al., 2018), often suggesting a linear sequence and clear distinction among them (e.g., Gebauer, 2011; Mousavi & Bossink, 2017; Vézina et al., 2019).

Moreover, Zollo and Winter (2002) conceptualize dynamic capabilities as "learned and stable pattern[s]" that are "systematically" (p. 340) applied in the strategic adaption of the firm. Their routinized, repetitious, and patterned nature also distinguishes dynamic capabilities from "ad hoc problem solving" that addresses the same purpose but is performed by employees or teams who are otherwise employed in ordinary capability roles, thus, carrying a lower cost burden on the firm (Winter, 2003).

The literature on dynamic capabilities serves as a theoretical framework that we aim to extend with our grounded theory research approach. We confront the theoretical background with our findings in the Discussion section.

3. Methodology

Given the exploratory nature of our research, we employed a grounded theory research approach (e.g., Corbin & Strauss, 1990; Gioia et al., 2012) using the case study method that is particularly indicated for "how" research questions (Yin, 2018). In our quest to identify a theoretical sample that is "likely to replicate or extend the emergent theory" (Eisenhardt, 1989, p. 537), we selected the publishing industry as context and a longitudinal view (2000–2020) of Axel Springer, a leading media corporation, as its critical case. With the emergence of the internet, the media industry has suffered a tremendous decline in its traditional print-based business models. Similarly, the media industry has been considered suitable for dynamic capabilities research in other studies (e.g., Ellonen et al., 2011; Makkonen et al., 2014; Prescott, 2014). Within that context, Axel Springer stands out as a firm that is managing this transition outstandingly, with 73% of its current revenue being digital, realizing an EBITDA margin of 20% (cf. Table 2a-c). The firm, therefore, has demonstrated dynamic capabilities by definition (i.e., to thrive in a changing environment). Axel Springer thus uniquely qualifies as a "critical case" (Flyvbjerg, 2006; Yin, 2018) or "unique exemplar," respectively (Eisenhardt in Gehman et al., 2018). As the aim of the study is to explore how dynamic capabilities interplay over a longer time period, the longitudinal single case is the pertinent method, which has also been used by other studies of dynamic capabilities (e.g., Danneels, 2010; Dixon et al., 2014; Pandit et al., 2018).

We collected primary data from 18 semi-structured interviews with current and former managers, as well as peers (cf. Table 1). The collective tenure of these informants covers the entire observation period, which allowed us to conduct a longitudinal case study examining "the same single-case at two or more different points in time" (Yin, 2018, p. 51) with an ex-post perspective. The interviews were conducted in the years 2020 and 2021, recorded and transcribed verbatim except for one (due to confidentiality preferences), for which we took a memo.

The interviews were subsequently coded according to the procedures outlined by Gioia *et al.* (2012) using the Atlas.ti software. Initial coding resulted in 502 open codes. By seeking similarities and differences among the open codes, we reduced the categories to a manageable number of 1st-order concepts while retaining informant terms, from which we eventually

Table 1. Overview of Interviews

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16 Founder / Publisher Peer -	14	Senior Vice President	Peer	-
	15	Senior Vice President	Finance	2001–2011
17 Board Member Corporate 2013–Present	16	Founder / Publisher	Peer	-
1	17	Board Member	Corporate	2013–Present
18 Senior Vice President M&A 2001–Present	18	Senior Vice President	M&A	2001–Present

constructed our data structure with 2nd-order themes and aggregate dimensions, as shown in Figures 1a-c. Secondary data was retrieved from openly accessible sources such as annual reports, trade press articles, or social media. This data was mainly used to triangulate interview data and give more context. Data collection and analysis were performed iteratively until theoretical saturation (Corbin & Strauss, 1990).

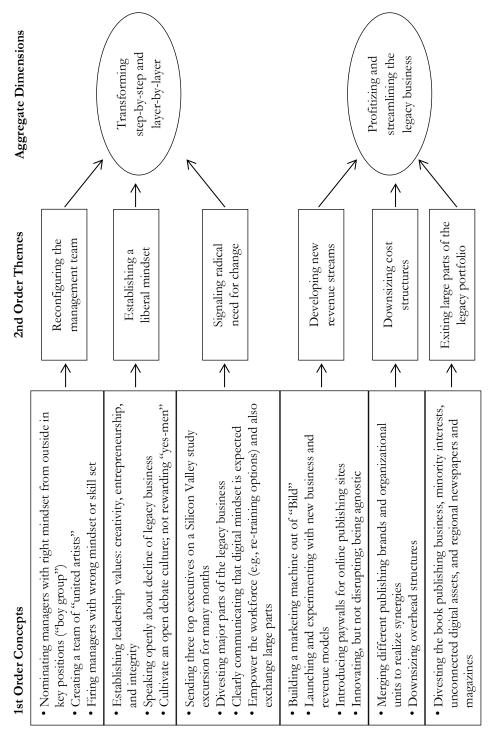


Figure 1a. Data Structure

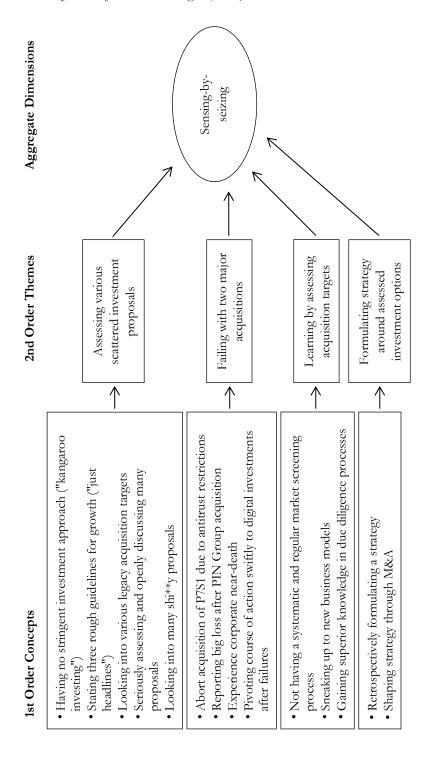


Figure 1b. Data Structure (continued)

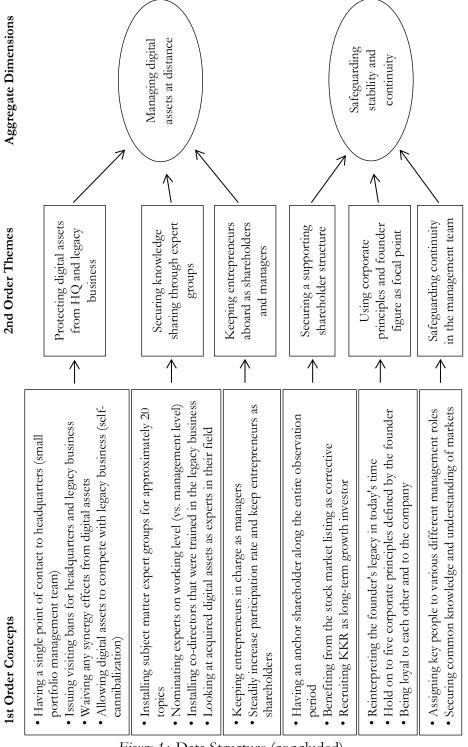


Figure 1c. Data Structure (concluded)

4. Axel Springer Vignette

Axel Springer was founded in 1946 as a print media publisher by Axel Cäsar Springer (1912-1985). Today, the firm is active in digital classifieds and news media with annual revenue of 3,112m€. By 2000, Axel Springer was mainly active in Germany with newspapers, magazines, and books. International and digital business played a minor role with 16% and 3% of total revenue, respectively. After decades of high margins, the company reported its first loss in 2001, which coincided with the beginning of the market's decline. Subsequently, the company began consolidating its print-based legacy business and looking for external growth options. From 2003, Axel Springer aimed to take over ProSiebenSat.1 Media ("P7S1"), one of the two major TV corporations in Germany, a move that was eventually prohibited by anti-trust authorities. Afterward, the company stepwise acquired PIN Group, a postal service provider. Following the introduction of a minimum wage, PIN Group became loss-making, and Axel Springer sold the group in 2007 with a significant loss of 545m€. The firm then focused its growth strategy on digital assets, acquiring a series of digital firms (e.g., Idealo, StepStone, Zanox, AuFeminin, SeLoger). In 2014, it sold a significant part of its legacy print business to Funke Mediengruppe. Following this sale, the firm acquired digital journalism products (e.g., Politico Europe, Business Insider). Throughout the observation period, the share of digital revenues increased to 73%, and EBITDA increased from 217m€ to 631m€, which was in part debt-financed, though, debt ratios remained moderate. This overview is based on the official company timeline (Axel Springer SE, 2020), annual reports, and context given by informants. Tables 2a-c summarize key figures for the market and the case.

Table 2a. Key Market and Case Data (1999-2005)

						/		
Market data	unit	1999	2000	2001	2002	2003	2004	2005
Advertising revenue*	Þ€	6,400	6,900	5,996	5,273	4,680	4,742	4,729
Circulation revenue*	$\mathrm{b}\epsilon$	3,710	3,890	4,002	4,147	4,141	4,163	4,215
Total revenue*	$\mathrm{b}\epsilon$	10,110	10,790	866,6	9,420	8,906	8,995	9,036
Total circulation*	Ā	30,791	30,453	30,234	29,560	28,763	28,192	27,403
$\mathrm{GDP}\ \mathrm{growth}^{**}$	%	1.9	2.9	1.7	-0.2	-0.7	1.2	0.7
Axel Springer data								
Revenue***	m€	2,664	2,902	2,864	2,777	2,321	2,402	2,392
EBITDA***	m€	262	217	33	110	290	433	414
Net income / loss (-)***	m€	151	86	-198	61	112	148	231
Share of digital revenue***	%	n/a						
Net debt***	m€	n/a	n/a	n/a	n/a	1	173	327
Net debt / EBITDA	ratio	n/a	n/a	n/a	n/a	0	0.4	0.8
Share price (end of	€	n/a	33	18	16	23	29	35
Employees (average)***	heads	12,504	13,590	14,069	13,203	10,949	10,700	10,166

Sources:
* Bundesverband Digitalpublisher und Zeitungsverleger (2001-2020), Annual Year Books 2000-2019, Bundesverband Digitalpublisher und

Zeitungsverleger, Berlin.

** Statistisches Bundesamt (2020), Bruttoinlandsprodukt für Deutschland 2019, Statistisches Bundesamt, Wiesbaden.

*** Axel Springer (2000-2020), Annual Reports 1999-2019, Axel Springer, Berlin.

**** Börse.de (2020), "Axel Springer Aktie", available at: https://www.boerse.de/historische-kurse/Axel-Springer-Aktie/DE0005501357 (accessed Dec 29, 2020)

Table 2b. Key Market and Case Data (2006-2012)

Market data	unit	2006	2007	2008	2009	2010	2011	2012
Advertising revenue*	$\mathrm{b} \epsilon$	4,793	4,837	4,639	3,903	3,856	3,771	3,432
Circulation revenue*	$\mathrm{b}\epsilon$	4,261	4,261	4,373	4,473	4,577	4,654	4,717
Total revenue*	$\mathrm{b} \epsilon$	9,144	9,187	860,6	8,458	8,518	8,510	8,230
Total circulation*	k	26,960	26,452	25,952	25,309	24,781	23,850	23,229
GDP growth**	%	3.8	3.0	1.0	-5.7	4.2	3.9	0.4
Axel Springer data								
Revenue***	m€	2,376	2,578	2,729	2,612	2,894	3,185	2,737
EBITDA***	m€	434	470	486	334	511	593	499
Net income / loss (-)***	m€	291	-288	571	314	274	289	259
Share of digital revenue***	%	_	6	19	21	27	31	45
Net debt***	m€	477	-743	-370	-193	80	-473	-450
Net debt / EBITDA	ratio	1.1	1.6	-0.8	9.0-	0.2	-0.8	6.0-
Share price (end of	€	45	32	16	25	40	33	32
Employees (average)***	heads	9,733	10,348	10,666	10,740	11,563	12,885	12,080
c								

Sources:
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** Statistisches Bundesamt (2020), Bruttoinlandsprodukt für Deutschland 2019, Statistisches Bundesamt, Wiesbaden.

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Table 2c. Key Market and Case Data (2013-2019)

Market data	unit	2013	2014	2015	2016	2017	2018	2019
Advertising revenue*	Þ€	3,100	2,994	2,806	2,674	2,524	2,364	2,194
Circulation revenue*	$\mathrm{b}\epsilon$	4,705	4,764	4,840	4,889	4,890	4,811	4,963
Total revenue*	$\mathrm{b}\epsilon$	7,884	7,759	7,646	7,563	7,414	7,174	7,156
Total circulation*	ķ	22,360	21,457	20,507	19,088	18,326	17,631	16,878
GDP growth**	%	0.4	2.2	1.7	2.2	2.5	1.5	9.0
Axel Springer data								
Revenue***	m€	2,801	3,038	3,295	3,290	3,563	3,181	3,112
EBITDA***	m€	454	507	559	296	646	738	631
Net income / loss (-)***	m€	230	251	279	300	328	336	264
Share of digital revenue***	%	48	55	62	29	72	71	73
Net debt***	m€	-471	899-	-1,067	-1,035	-1,020	-1,249	-1,953
Net debt / EBITDA	ratio	-1.0	-1.3	-1.9	-1.7	-1.6	-1.7	-3.1
Share price (end of	€	47	50	51	46	99	49	63
Employees (average)***	heads	12,843	13,917	15,023	15,323	15,836	16,350	16,120

Sources:
* Bundesverband Digitalpublisher und Zeitungsverleger (2001-2020), Annual Year Books 2000-2019, Bundesverband Digitalpublisher und

Zeitungsverleger, Berlin.

** Statistisches Bundesamt (2020), Bruttoinlandsprodukt für Deutschland 2019, Statistisches Bundesamt, Wiesbaden.

*** Axel Springer (2000-2020), Annual Reports 1999-2019, Axel Springer, Berlin.

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5. Findings

In our quest to study the interplay of sensing, seizing, and transforming in the context of incumbent adaptation, we identified the following dynamic capabilities (cf. Figures 1a-c; Table 3).

5.1 Transforming Step-By-Step and Layer-By-Layer

Axel Springer exercised transforming activities in two distinguishable steps: the first encompassed only some layers of the firm while the second radically transformed it as a whole.

In 2000, when markets began to decline, Axel Springer was the market leader with a profitable business. Its culture, however, was driven by infighting and intriguing, which made it inert and unable to innovate and adapt to looming market change. The first reported loss in 2001 was a pivotal warning shot and led to the election of a new CEO who came to realize that the management, as well as the corporate mindset, was not ready to confront the challenges ahead. Before initiating any sensing or seizing activities, the CEO began transforming the organization by hiring key personnel from outside.

"From the beginning, he got several managers from Gruner + Jahr and Bertelsmann. [...] This included also three new board members. All of them had another upbringing and leadership philosophy [...]. This was set up from the beginning [...] and contributed heavily to the success." (Current manager)

Furthermore, the new CEO initiated an open dialogue and self-critical reflection about the firm, which previously would have been taboo. This introduced a liberal mindset that led to frank discussions about the declining core business.

These first transforming steps can be considered the essential condition for the following adaptation, as they preceded any significant sensing or seizing activity. More than a decade later, the second and more radical transforming step was initiated.

"Previously, the transformation was point-by-point. [...] But then, digitalization was broadened and everybody was taken aboard. [...] From this point, we were a digital company." (Current manager)

In 2012, Axel Springer sent three key executives to Silicon Valley on a ninemonth trip to study digitalization. Back home, they initiated radical change. Afterward, a management conference was held in the Silicon Valley with one clear message: from now on, the transformation would be radical, and everybody would have to think digital – no excuses.

"The trip to the Silicon Valley was a highly symbolic act. [...] Now nobody can remain in Springer's leadership team without endeavoring in digitalization." (Former manager)

In consequence, the composition of the workforce changed significantly:

"From the 14,000 employees we had at the beginning of the year 2000, [...] no more than 1,000 are still here." (Former manager)

Additionally, the divestment of legacy assets in 2014 underscored the communicated radicality with concrete actions.

5.2 Profitizing and Streamlining the Legacy Business

The strategic role Axel Springer attributed to the legacy business was to generate cash flow to partly finance investments into new businesses. Thus, it was put under a strict profitizing mandate which meant to find new revenue streams and cut costs. Additionally, the portfolio was divested where necessary.

Profitizing involved particularly the newspaper Bild which was the main breadwinner of the company in the first half of the observation period. Rather than limiting consolidation mainly to cost cuts, Axel Springer put equal efforts into boosting revenues by innovating the print product offerings. Most notably, the Bild brand was repositioned, which opened it up for new advertisers. Axel Springer created many new advertising formats that allowed it to tap into further advertising budgets, and it also launched new print products, which stabilized circulation and advertising revenues. Moreover, Axel Springer has been at the forefront when it comes to digitalizing the legacy business. For example, it was the first publisher to launch a news app when the iPad was introduced, and it introduced paywalls on its online publishing sites. A move that has been copied by many of its peers afterwards. These innovations were coupled with cost-cutting programs. In the labor-intensive media business, cost is predominantly reduced by making job cuts. Axel Springer reduced its legacy workforce steadily with various programs across the entire organization. These measures allowed to keep legacy profits high for several years after the markets started to decline.

"The consolidation of the core business [...] was very important to finance the expansion. [...] The print market peaked in 2000, but the earnings of Bild peaked as late as 2009 or 2010. [...] The strategy was to keep the print business up in the air like a paraglider and move the touchdown point as far as possible into the future." (Current manager)

However, for some legacy assets, these measures were exhausted at one point. Axel Springer constantly screened its portfolio from a valuation point of view and divested assets that were evaluated to be at the end of their lifecycle.

"Axel Springer has always managed to recognize when an asset has been milked out. [...] [The firm] has identified intelligent cutoff points [...]." (Former manager)

These cutoff points included the book publishing business in 2003 (175m€ annual revenues), stakes in regional newspapers in 2009 (not consolidated), and a significant share of its magazines and newspapers in 2014 (514m€ annual revenues). These divestments represented over one-fourth of the original business portfolio.

5.3 Sensing-By-Seizing

In 2001, three strategic priorities were defined: consolidation, internationalization, and digitalization. These remained, however, simple headlines of a strategy that had yet to be written. Furthermore, the firm did not practice any systematic and regular sensing activities.

"I would make a big question mark to whether this [i.e., sensing] was made systematically and regularly. [...] We always looked at single pieces of the puzzle without analyzing everything until the end." (Former manager)

Consequently, Axel Springer assessed a plethora of investment opportunities as broad as the articulated strategic priorities. This even included acquisitions in the declining print media business that never materialized. Eventually, the firm did engage from 2005 to 2007 in the P7S1 and PIN Group transactions, which turned out unsuccessful due to antitrust and regulatory reasons, respectively, despite a comprehensive strategic calculus.

By seizing these opportunities, however, Axel Springer learned about the political reluctance to let a powerful media corporation or a competitor to the state-owned Deutsche Post emerge. We see from the interviews that these strategic roadblocks would most likely not have been detected if the firm had just engaged in traditional sensing activities during the due diligence for these

transactions (e.g., desk research, management workshops). Hence, the firm gained knowledge through action rather than planning action based on knowledge. Therefore, we introduce sensing-by-seizing as a dynamic capability. This novel understanding proposes that the firm senses its environment more concretely and reliably when seizing particular opportunities.

"They [...] very systematically gained knowledge from this trial-and-error approach. [...] For example, in the follow-ups to the ProSiebenSat.1 disaster, [they asked] why did it fail? What other possibilities are there? And so on. They are very good at analyzing." (Peer)

As the following findings show, sensing-by-seizing has developed as a learned and stable pattern at Axel Springer. After the two unsuccessful transactions with P7S1 and PIN Group, the firm managed to pivot expeditiously to digitalization; a strategic priority it had previously begun to sense by seizing Idealo in 2006. Idealo was its first major digital acquisition, which allowed Axel Springer to explore digital business models at low risk because Idealo was acquired at a relatively low price and because its founders were kept aboard as managers. The path to digitalization was further emphasized by the acquisitions of Zanox in 2007, StepStone in 2009, and Seloger in 2011, among other companies. This series of acquisitions represent the beginning of Axel Springer's development into an internet company. Today, StepStone is the main breadwinner. The way StepStone found its way into the firm shows an exemplary sensing-by-seizing capability. To enter the German market, the Norwegian start-up founded a joint venture with Axel Springer in 2004. Therefore, Axel Springer was able to sense the new market empirically for quite a while and then conclude to invest further. In 2009, it acquired the entire company.

"In the case of new and unknown business models, we decided to gradually sneak up on [them]. Meaning, we felt more comfortable in a minority situation initially, to get to know the business and the management. Later, we increased our share to a majority." (Current manager)

The concept of sensing-by-seizing appears to work particularly well in nascent markets with only a few experts in the field such as the digital classifieds market at that time. Axel Springer was unable to acquire the necessary expertise to assess its digital classifieds acquisition targets outside of the firm (e.g., consultants, lawyers). Thus, it had to build up the expertise

internally. As a result of sensing-by-seizing, Axel Springer gained exclusive expertise that was otherwise not available externally.

"[Axel Springer] could not rely on external parties but had to build up know-how internally. For example, classifieds, I am very sure that over time competencies were developed that probably wouldn't even have been available on the market because there haven't been that many transactions really and when you participated, you effectively built up this know-how inhouse." (Former manager)

The firm defined its corporate strategy to become an internet company retrospectively. As such, the strategy was a result of various sensing-by-seizing activities rather than a masterplan defined ex-ante.

5.4 Managing Digital Assets at Distance

Once Axel Springer had seized the digital assets, it developed a distinctive dynamic capability to integrate and manage them. They were kept structurally separate from the legacy business and managed by a small portfolio management team. Any interference from the legacy business was forbidden. Consequently, the firm waived any synergy potential from their acquisitions. Central functions were only used by request but not as a corporate mandate. The digital assets were allowed to openly compete with the legacy business. Accordingly, "self-cannibalization" became a positive mantra.

"The approach was by no means to delight the newly acquired digital assets with services from the headquarters and to integrate them. [...] To the contrary, the headquarters should learn from these acquisitions how digitalization works." (Former manager)

This approach was a stable pattern and as such, it was much appreciated by the management of the digital assets, as one manager remembers:

"My impression was that they left us alone in a positive sense. [...] They looked at us as the experts in the online job industry. [...] I personally experienced [Axel Springer] as bringing us into the next era and opening quite a lot of doors." (Former manager)

To secure knowledge sharing despite this structural separation, Axel Springer introduced up to 20 expert groups for specific technical topics (e.g., SEO, cloud solutions, agile working). Their members were subject matter experts on a working level rather than management, something which secured genuine expert dialogue.

"We started early on to bring the digital employees together in specific groups so they could get to know each other and exchange on certain topics. [...] These expert networks still exist." (Current manager)

Axel Springer did not approach the acquired companies as a "conqueror" that changed the management team once the transaction was closed. On the contrary, the firm tried to keep onboard the former team, often consisting of the founders, as managers and shareholders. This maintained valuable knowledge and secured an entrepreneurial management style.

"We developed an acquisition formula that was the key success factor in our acquisition strategy: we acquire 75% and the founders stay onboard and keep 25%, for which we have call options. So, we can be sure not to buy a shell for which we do not have the management and cultural capabilities." (Current manager)

5.5 Safeguarding Stability and Continuity

It seems paradoxical amid the need for change but most informants emphasized stability and continuity as success factors. This regarded the shareholder structure, the corporate heritage and principles, and the management.

"When you are dealing with a changing environment and you realize that your commercial basis begins to crumble [...] it helps when you have a certain foundation you can build on and hang onto." (Peer)

During the entire observation period, Axel Springer had one anchor shareholder that guaranteed a great deal of stability and continuity. The management describes this relationship as very trustful and supporting. They were able to focus on managing the firm and not get distracted by shareholder issues. This trust and backing were especially evident after the unsuccessful transactions with P7S1 and PIN Group.

"The most impressive moment was when this whole PIN-story failed. Then the supervisory board said: we are not going to fire the entire board. They made a mistake. They didn't make it alone. We in the supervisory board also went on with the decision. And we get out of this mess together." (Current manager) Table 3. Representative Quotes Underlying Aggregate Dimensions

Second-Order Themes	Quotes Underlying Aggregate Dimensions Quotes
Transforming Step-by-Ste	ep and Layer-by-Layer
Reconfiguring the management team	"[The CEO] reformed the leadership team. He made this very thoroughly. He was mocked in the public for his "boy group" because he hired many young managers." (Current manager) "Then he fired [a person]. That really was an intriguing guy with a very bad reputation. [] This signaled a fresh start." (Current manager)
Establishing a liberal mindset	"If you would have mentioned [the political past] with [the former CEO], you would have been fired immediately." (Peer)
	"This willingness to discuss in an open-ended way was decisive for the development of the team. [] Board meetings were never held with a preconceived opinion." (Current manager)
Signaling radical need for change	"That was the moment to say it is not sufficient to have acquired some selective digital assets. [] Everybody has to become digital." (Current manager)
Profitizing and Streamlini	ng the Legacy Business
Developing new revenue streams	"We developed Bild into a marketing machine by repositioning it and, thus, opening it up to new advertisers." (Current manager) "The switch from free to paid content was the next revolution." (Former manager)
Downsizing cost structures	"We developed a restructuring case that included several painful measures." (Current manager)
Exiting large parts of the legacy portfolio	"[The CEO] diverged categorically from anything that had eaten up capacities and was loss-making. [] I think this was decisive because unnecessary management ballast was eliminated." (Former manager)

Table continued on following page

Table 3. Representative Quotes Underlying Aggregate Dimensions (continued)

Second-Order Them	es Quotes
Sensing-by-Seizing	
Assessing various scattered investment proposals	"You don't believe how many shi**y proposals I had to get off the table." (Former manager) "It was an enormous multitude of M&A targets that were assessed, very remarkable for a company of this size." (Former manager)
Failing with two major acquisitions	"This was a decisive phase with these two failures. Both have really shaken up the company." (Current manager) "After [P7S1] was not possible, we completely changed course without communicating this too hard and explicitly." (Former manager)
Learning by assessing acquisition targets	"We learned enormously from these acquisitions. [] With everything we have learned [] new acquisition opportunities opened up for us." (Current manager) "We have the capability to make brave decisions based on the current state of knowledge but we also know that the decision base can change significantly within just a few years." (Current manager)
Formulating strategy around assessed investment options	"It now looks as if everything was planned, but of course it wasn't." (Current manager) "Major strategic moves [] were always opportunities and not the result of a systematically defined strategy." (Former manager)
Managing Digital Asse	ts at Distance
Protecting digital assets from HQ and legacy business	"We always said: each integration into the corporate structures means the lingering death of any young startup." (Current manager) "That was an internal culture war. They needed to fight against all the controllers and other corporate departments." (Current manager)

Table concluded on following page

Table 3. Representative Quotes Underlying Aggregate Dimensions (concluded)

Second-Order Themes	Quotes
Managing Digital Assets a	t Distance
Securing knowledge sharing through expert groups	"We were linking people together in specific expert groups." (Former manager) "I think it is an important factor that we used the word synergies very seldom but worked more in a business and experience exchange mode." (Current manager)
Keeping entrepreneurs aboard as shareholders and managers	"[We did] not acquire as conquerors and integrate entire teams that wanted to explain to them how the world works." (Current manager) "We seldom acquired one hundred percent, rather step-by-step." (Former manager)
Safeguarding Stability and	Continuity
Securing a supporting shareholder structure	"The management was able to focus on the strategy and didn't have to manage shareholder issues." (Current manager) "I spent maybe two percent of my time on
	company politics." (Former manager)
Using corporate principles and founder figure as focal point	"There are a lot of people from the digital scene that want to work with or sell their company to Axel Springer because they say: they have a soul." (Current manager)
	"In this age of digitalization and when everything important emerges in the Silicon Valley – what would our founder have done?" (Current manager)
Safeguarding continuity in the management team	"The people that he hired, they stayed very long." (Current manager)
_	"Back then I got a contract with a termination period of one year. [] I wanted to have a shorter period. [] But he insisted because he wanted to have continuity []." (Former manager)

The firm has historically been driven by the "Springer-values", a set of principles that was defined many decades ago. For example, journalists have to stand up for a united Europe or uphold the principles of a free market economy. These principles and the omnipresent founding figure were skillfully used by management to explain and advocate the need for change while referencing their heritage. The CEO staged a theater play in which he played the founder in today's world. He dressed up in a hoodie and a t-shirt, like a startup founder, and thought out loud how to disrupt the media. This signaled both appreciation of the past and the need for change.

After the initial reconfiguration, management has remained very stable. Rather than placing vacancies with external candidates, internal managers were developed and assumed different roles. Therefore, management tenures often stretched over large parts of the observation period (cf. Table 1), which in turn preserved stability and continuity.

In conclusion, Axel Springer was capable of managing the balancing act between stable reference points, such as corporate principles and key personnel on one side and major business change on the other. In this case, the former is paradoxically a key success factor for the latter.

6. Conceptual Model

Our examination of the Axel Springer case has shown that its dynamic capabilities have iterated, overlapped, and interconnected over time. Axel Springer began transforming the firm before sensing or seizing any opportunities. The transformation of key management posts and the corporate mindset was followed by profitizing and streamlining the legacy business to be able to finance seizing opportunities in new business areas. The firm developed a dynamic capability to manage its new business that allowed it to thrive vis-à-vis the legacy business. Later, a more radical round of transforming allowed to adapt the entire firm. Despite a heavy burden of change on the organization, it maintained a dynamic capability to safeguard stability and continuity. Based on these findings, we constructed the "dynamic capabilities in incumbent adaptation model" depicted in Figure 2. It represents the "conceptual leap" that generalizes our findings (Gioia *et al.*, 2012). By bringing research and practice together, this conceptual model shall also contribute to advance strategic management as a discipline (Cox *et al.*, 2012).

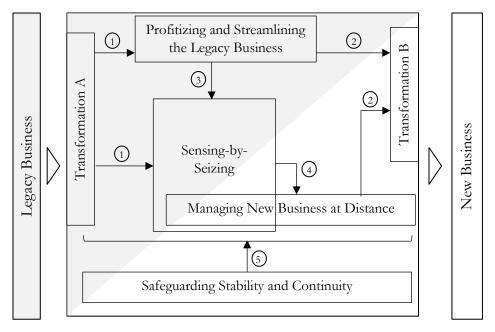


Figure 2. Dynamic Capabilities in Incumbent Adaptation Model

The model is embedded in the overarching strategic challenge to convert the firm from a declining legacy business (in gray) into a new business. For Axel Springer, this conversion was from printed to digital media. However, shifts in consumer behavior that pose a strategic challenge to incumbents also occur in other contexts. For example, e-commerce in the retail industry, carsharing in the automotive industry, online bookings in the travel industry, battery-operated household appliances in the electronics industry, or online banking in the banking industry.

Our research has shown that particular transforming activities stand at the beginning of the incumbent adaptation process (labeled "Transformation A"), which are the essential condition for all following adaptation activities (links 1). For Axel Springer, this was the reconfiguration of the top management and the establishment of a liberal mindset. In other cases, Transformation A might encompass other activities, for example setting up a sustainable financing structure, resolving looming legal issues, or creating awareness of market realities. In any case, we argue that particular transforming activities need to be performed before any further activities can be initiated. As such, Transformation A suggests some degree of linearity in the concept as it always stands at the beginning.

"Transformation A" is to be distinguished from "Transformation B". Whereas the former only addresses the immediate essential conditions, the latter aims at radically transforming the entire firm. Axel Springer postponed Transformation B for many years. This bridged a period in which the strategy was still rather fuzzy and relieved the organization from energy-consuming transforming during this unclear period. Once a feasible strategy had emerged from sensing-by-seizing, Axel Springer launched "Transformation B" for the entire organization (link 2).

Between the two transforming activities, Axel Springer put the legacy business under a strict profitizing mandate to invest in new businesses with the sensing-by-seizing approach (link 3). The firm focused on acquisitions. In other cases, however, new business may also emerge from sensing-by-seizing via internal venturing, research and development, or new product development, among other processes.

When it comes to managing the new business (link 4), Axel Springer followed a distinct form of structural separation. We conceptualized our model accordingly. The ambidexterity literature describes similar approaches as "structural ambidexterity" (e.g., Carter et al., 2013; O'Reilly & Tushman, 2013).

Finally, we integrated safeguarding stability and continuity into the model (link 5). As Axel Springer has shown, the strong foundation of the firm in its heritage and people was crucial in the adaption process. This aspect should, we argue, be flexible enough to facilitate necessary change.

7. Discussion

Changing environments have required Axel Springer to exercise dynamic capabilities to convert from a print publisher to an internet company. The conversion began at the point when print markets started to decline in 2000 until the present when the firm reports a digital revenue share of 73% (cf. Table 2a-c). By examining this longitudinal case of incumbent adaptation to changing environments, we studied the interplay of sensing, seizing, and transforming over time.

Empirical research has typically relied on sensing, seizing, and transforming (Teece, 2007) to study dynamic capabilities (Schilke *et al.*, 2018), with some suggesting a linear sequence and clear distinction between them (e.g., Gebauer, 2011; Mousavi & Bossink, 2017; Vézina *et al.*, 2019). Our study confronts this concept with the "messy" reality of organizational phenomena. It finds that,

first, the firm iterates between the different procedural dimensions of dynamic capabilities, and second, that there are overlaps and interconnections between sensing, seizing, and transforming. Axel Springer began its adaptation process with initial transforming activities followed by iterating between and combining seizing and sensing, ongoing smaller transforming activities and, later, transforming radically. Moreover, some of the dynamic capabilities identified cannot be discretely mapped onto sensing, seizing, and transforming. For example, "managing new business at distance" integrates seizing (i.e., asset integration), transforming (i.e., securing knowledge sharing), and sensing (i.e., screening for further digital targets).

Axel Springer did not perform any systematic or regular sensing activity; rather, it aimed to seize various opportunities within strategic priorities. By doing so, the firm has sensed opportunities and threats as a by-product in a concrete and reliable way that could not have been possible had it used standard sensing activities. Therefore, we introduce the concept of sensing-by-seizing defined as sensing opportunities and threats at the same time as seizing concrete opportunities within defined strategic guidelines. This concept is a novel perspective on dynamic capabilities, as the literature has not dimensionalized them by integrating analytical (i.e., sensing) and actionable (i.e., seizing) capabilities.

One could argue that sensing-by-seizing is a form of "ad hoc problem solving" (Winter, 2003). However, evidence from our case supports the contrary, as sensing-by-seizing was performed regularly and systematically by dedicated personnel. The lessons learned from sensing-by-seizing projects were openly and critically discussed and internalized, and thus articulated and codified. Sensing-by-seizing can therefore be characterized as a "learned and stable pattern" (Zollo & Winter, 2002, p. 340) and a "repeated practice" (Eisenhardt & Martin, 2000, p. 1114).

The literature has often stated that the dynamic capabilities concept lacks managerial applicability, which has hindered practitioners from making practical use of the concept (Schilke *et al.*, 2018). Bearing this issue in mind, our study makes two contributions. First, the model conveys the building blocks of incumbent adaptation stating, for example, that transforming activities must be considered at the outset of the process. Second, we identified specific and applicable dynamic capabilities for incumbent adaptation (e.g., sensing-by-seizing).

8. Limitations and Future Research

Our research has been conducted following a high theoretical and methodological standard. However, we acknowledge some limitations and avenues for future research.

First, the single case study approach represents a standard limitation (e.g., industry, geography, company size). We argue, however, that Axel Springer is the critical case (Flyvbjerg, 2006; Yin, 2018) to study our research question. By examining two decades and accessing several top managers, we were able to gain very rich and insightful data. Second, the results of our study might be biased toward a positive account of Axel Springer's accomplishments, as the key data source was internal informants. However, triangulation was done by interviewing peers and former managers that partly see the firm with a critical eye as well as analyzing secondary data. Third, although we examined our case at several points in time, the interviews were all conducted ex-post. We solved this problem by triangulating with secondary data that originated at these points in time (e.g., newspaper articles, social media) and interviewing former managers active in earlier periods.

We have found that Axel Springer has performed particular transforming activities at the outset that were the essential conditions for the entire incumbent process (termed "Transformation A"). We acknowledge that Transformation A looks different from case to case; however, we suggest that it might occur in every incumbent adaptation case. Future research should examine the activities and micro-foundations of Transformation A in qualitative case studies.

The concept of sensing-by-seizing is one of the main findings of our study. Future research may revise or extend this concept qualitatively. Furthermore, quantitative studies could measure the outcomes of this concept as it might be (a) more cost-effective, as sensing occurs as a by-product of seizing; (b) more insightful, as assessing concrete options is more informative than simple sensing; and (c) allow faster incumbent adaptation, as concrete opportunities can be seized simultaneously to sensing. Finally, managerial cognition research proposes that organizational development is shaped by the manager's interpretations of the environment (Eggers & Kaplan, 2013). As concrete investment proposals supposedly garner higher management attention than simple sensing, future research may examine if the sensing-by-seizing approach can lead to better-informed management.

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