Legacy removal as a core dynamic capability for incumbent MNCs facing disruptive change

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Abstract
Established multinational companies (MNCs) facing not only strong competition but also disruptive change often die. One key factor is their inability to divest themselves of legacy resources. Kodak is a generic example of this. In spite of sensing, seizing, and even some transformation, it failed because of a failure to remove legacy resources. We view legacy removal as a significant managerial activity and as a critical dynamic capability. In the divestment process, it involves political skills in dealing with affected stakeholders. Employing a case study of the mobile telephony MNC, Telenor, we develop insights into managerial activities intended to ensure legacy removal. In its first period of legacy removal in the 1990s, Telenor was able to evolve from a state-owned domestic operation into an MNC. Digitalization and the need to become a digital services provider means that it is currently engaged in a second period of legacy removal. This second period is under ongoing research.

Keywords  
dynamic capabilities, business models, MNCs, legacy

Introduction
Firms located in business environments that are subject not only to strong competition, but also to disruptive changes that undermine the viability of their established business models, often simply die (Christensen, 1997). In the case of the conventional film manufacturer Kodak, although it developed and patented many of the components of digital photography, it was unable to overcome core rigidities (Leonard-Barton, 1992) and develop a new business model based on the new technology. This was despite investing heavily in digital photography including R&D, acquisitions, and setting up a separate digital organizational unit.
Top management both sensed the need for and seized new digital assets. Further, Kodak even succeeded in transforming some of these into new digital products. However, for Kodak the issue became far more one of removing its massive film legacy. Despite having some employees who were knowledgeable about digital photography, these tended to be new hires. The bulk of middle managers were traditional film managers who were “highly rigid in their adherence to this medium” (Lucas & Goh, 2009:53). These middle managers rejected the disruptive technology and fought over resources in order to preserve the old line-manufacturing culture and the traditional business model. Their “victory” on behalf of legacy resources was the demise of what had been a highly successful, cash-rich company.

Nonetheless, there are established firms that do cope with rapid, discontinuous change and that succeed in business model innovation in the sense of a complete reconfiguration of how they do business (Zott & Amit, 2017). One approach to explaining the ability of these firms to reconfigure their resource bases in the face of rapidly changing environments is that of dynamic capabilities (Teece et al., 1997). Teece (2007) breaks these down into three primary components: “sensing” external opportunities and threats; “seizing” opportunities by, not least, designing innovative business models; and “transforming” both internal and external assets. “However,” (as Teece readily admits), “understanding how to enhance performance of the enterprise through sensing future needs, (seizing and transforming) remains enigmatic” (Teece, 2007:1345). The case of Kodak, where sensing, seizing and even elements of transforming were present, suggests that part of unravelling the enigma may lie in the need to introduce the notion of legacy removal as a key dynamic capability.

The purpose of this paper is to explore the role of legacy removal as a critical dynamic capability by drawing on a case study of a mobile MNC telco, Telenor. Twice in the last 30 years of its more than 100-year history has it had to confront radical environmental change and the need to develop new business models. Our broad research question is: How do managers transform business models and how do they remove legacy? Transformation of business models presumes sensing the need for business model innovation, seizing new value propositions and value appropriations, and reconfiguring and orchestrating the resource base and activity systems to create value. Thus, our research is guided by five sub questions: i) Who sensed the need for change and what does the sensing process look like? ii) Which opportunities were seized and who drove the seizing? iii) What was deemed necessary to transform and how was the transformation set up and carried out? iv) In reconfiguring the resource base, which resources needed to be removed, retained, or externally sourced? v) How is the new activity system orchestrated to drive growth based on the reconfigured resource base? We regard questions iv) and v) as particularly novel. In particular, removing legacy resources has not been a feature of dynamic capabilities research. It has managerial political implications in that turf wars, power conflicts, and competing interests have to be resolved in one way or another, either through persuasion, negotiation, or even coercion (Bolman & Deal, 1991). Concerning the expiry of Kodak, Lucas and Goh (2009:53) refer to senior managers as not wanting “to force the pain on the organization.” Removing legacy does not happen of itself by some process akin to osmosis. Rather, removing legacy is a key management task that requires political “nous” in the sense of skill and timing. In the case of an established MNC, removing the legacy in order to cope with the different environmental changes is even more challenging. As Teece (2014, p. 29) remarks, “an MNE’s dynamic capabilities must be more amplified and leveraged than those of a firm with a less ambitious, purely domestic, focus.”
The concept of dynamic capabilities

We follow the distinction between ordinary capabilities and dynamic capabilities (Teece, 2014). Ordinary capabilities allow a firm to compete and make a living under stable conditions where, for example, over and above branding, the main criterion of success is the efficient deployment of inimitable best practices. Under these conditions, learning is incremental. However, the efficient use of ordinary capabilities becomes worthless under conditions of fundamental environmental change (Winter, 2003). Indeed, in their study of the IT sector, Drnevich and Kriauciunas (2011) show that under conditions of environmental dynamism, dynamic capabilities have a higher contribution to a firm’s performance than ordinary capabilities. Similarly, in their analysis of pharmaceutical firms entering biotech fields, Anand et al. (2010) provide empirical evidence of the lack of relevance of capabilities in the traditional technology for entering new fields.

Thus, whereas ordinary capabilities are about performing extant tasks in the right, semi-routinized way, dynamic capabilities are higher-level activities that enable an enterprise to direct its activities towards producing new goods or services that are likely to be in high demand (Teece & Lefih, 2016). As such, firms with robust dynamic capabilities are "intensely entrepreneurial" (Teece, 2007: 1319).

The dynamic capability construct refers to “the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments” (Teece, Pisano & Shuen, 1997: 516). Although dynamic capabilities theory is not “tightly predictive”—it is, for example, not possible to disprove that a firm built dynamic capabilities without doing any sensing—Teece claims that its value lies in providing a structure “to start thinking systematically about why companies succeed—or fail” (Teece, 2013). However, that structure is far from clear. Not only are dynamic capabilities firm-specific and therefore “idiomatic,” but Teece (2013) also argues that as the business niche changes, dynamic capabilities change accordingly as managers engage in sensing, seizing, and transforming.

We contend that a substantial explanation of why dynamic capabilities are so “enigmatic” is that the concept encompasses the reconfiguration of both resources and activities. Further, some of these are tangible and observable, while others are intangible and difficult to observe (Sheehan and Foss, 2017). We summarize these distinctions in figure 1.

![Figure 1. Classification of dynamic capabilities](image-url)
At the core of our study is the view that the observable activities of managers are a key component of dynamic capabilities. Dynamic capabilities are neither random nor reflexive. Eisenhardt and Martin (2000: 1107) define dynamic capabilities as "the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve and die". Winter (2000) similarly argues that dynamic capabilities are systematic and persistent features of an organization. However, he takes issue with the notion that they are routines. He argues that unlike routines, which are invisible and unknown to managers, the control levers and intended effects of dynamic capabilities are known. In line with this, Lessard et al. (2016) argue that dynamic capabilities entail asset orchestration, requiring top management not only to administer resources, but also to manage and to lead with speed and skill. In other words, managers actively build dynamic capabilities with the manager’s role analogous to that of an orchestrator or “architect” (Makadok, 2001:389).

Extending this architectural metaphor, it would follow that the theoretical, empirical, and normative focus should be on structural principles for appropriate design of capabilities, on the “raw materials” from which capabilities are made, and on the “construction techniques” by which they are built. (Makadok, 2001:390)

Our view is that a key observable “construction technique” is that of legacy resource removal. We define legacy removal as a managerial dynamic capability that implies an understanding of which current resources are not core for the new environment and which ones managers need to transform or adapt. Additionally, there is a political component to legacy removal. This encompasses dealing with affected stakeholders—employees, other managers, trade unions, politicians and so on—in the divestment process and managing the timing of the process in a way that does not compromise current performance. Our recognition of the constraining character of path dependencies for incumbents to readily adapt to environmental dynamism is not novel (Teece el al., 1997). However, what is novel is the notion that legacy removal is a critical dynamic capability of itself.

On the face of it, one might expect that firms engaged in integrating, building, and reconfiguring internal and external competencies to address rapidly changing environments would initiate comprehensive radical reorganization in the sense of changes in fundamental principles of organizational design (i.e. organizational “restructuring” (Teece, 2009)). However, one significant source of organizational complexity for firms facing dramatic environmental change is that they may not be able to abandon their current ordinary capabilities and the organizational design developed around them in the immediate future.

The concept of ambidexterity has been suggested as an organizational capability for managing the exploitation-exploration paradox (O’Reilly & Tushman, 2013). Coping with this paradox might mean that firms choose reconfiguration or “patching’ change” instead of deep restructuring (Girod & Whittington, 2016: 1121). While this strategy might appear less risky, it involves hidden and not fully understood difficulties. Indeed, the Kodak case offers an additional and more radical scenario about the reconfiguration process. Coalitions of managers may seek to protect legacy resources and thereby block the reconfiguration of the resource base. In this scenario, firms lacking in the critical dynamic capability of legacy removal are characterized by ambidexterity that is disingenuous and “patching” change that is shallow.
Managerial activities as dynamic capabilities

Our view is that the observable activities of managers are a key component of dynamic capabilities (Helfat & Martin, 2015). These activities rest on three managerial resource attributes (Adner & Helfat, 2003): managerial human capital, managerial social capital, and managerial cognition. **Managerial human capital** refers to the skills and knowledge base of managers, which change through professional development and personal experience (Kor & Mesko, 2013). **Managerial social capital** refers to their ability to access resources through relationships and connections. In this sense, managers’ ties are relevant for the construction of their social capital. As Kor and Mesko (2013) highlight, these two attributes reinforce each other. Our argument is that both are salient for managers sensing the need for legacy removal as well as seizing which resources to remove and when is the right timing. Additionally, both are key components of the political repertoire required for dealing with the latent inertia that legacy removal has to confront. Finally, **managerial cognition**, which consists of the belief systems and mental models that prevail for decision-making, also drives the legacy removal capability. Managerial cognition is shaped by the previous attributes (Kor & Mesko, 2013) and through processes such as perception, interpretation, assessment, problem solving, or communication, underpin the processes of sensing, seizing and transforming (Helfat & Peteraf, 2015). Accordingly, managerial cognition might have an effect on the belief managers have in their ability to remove resource legacy.

As Kor and Mesko (2013, 235) propose, these three attributes shape the managers’ dominant logic about the business—that is, “the way managers conceptualize the business and make critical resource allocation decisions” in different functions and at different levels (Sirmon & Hitt, 2009). According to the literature review of dynamic managerial capabilities by Helfat & Martin (2015), previous studies have taken into account the following variables for understanding the three dimensions (Table 1).

**Table 1. Measures of the underpinnings of dynamic managerial capabilities**

<table>
<thead>
<tr>
<th>Managerial Cognition</th>
<th>Managerial Social Capital</th>
<th>Managerial Human Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge Structures:</strong> Mental Representations &amp; Mental Models, Beliefs, Resource &amp; Strategic Schemas</td>
<td><strong>Social Network Ties:</strong> External, Internal</td>
<td><strong>Education:</strong> Level, Type of Background</td>
</tr>
<tr>
<td><strong>Mental Processes/Cognitive Capabilities:</strong> Attention, Perception Interpretation, Reasoning</td>
<td><strong>Network Characteristics:</strong> Size, Strength, Closeness, Diversity, Centrality</td>
<td><strong>Work Experience:</strong> Position, Firm, Industry, International, Functional Area, Management/leadership, Entrepreneurial</td>
</tr>
<tr>
<td><strong>Emotions:</strong> Emotion Regulation</td>
<td><strong>Relationships:</strong> Managers in Other Firms, Business Contacts, Directors, Government Officials</td>
<td></td>
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Our aim in the proceeding sections is to analyze the role of dynamic managerial capabilities in terms of sensing the need for legacy removal, seizing the opportunities for doing so, undertaking the transformation process, and removing the legacy.

Radical business model innovation at Telenor

Methodology

We analyze the case of Telenor, a 160-year-old telephony company that currently has a strong footprint in Scandinavia, CEE and Asia. In the past 30 years, Telenor has experi-
enced two radical changes to its environment. The first was in the 1990s and involved both institutional and technological change. Given its history then as a state-owned monopoly in Norway, the subsequent development of Telenor into the world’s ninth largest multinational mobile telephony operator measured in number of connections stands in stark contrast to the demise of Kodak. The second radical environmental change is ongoing and derives from a combination of globalization and technological change. One of the authors collected the longitudinal data for the first business model change in conjunction with his doctoral thesis (Elter, 2004). The same author and one other collected (and continue to collect) longitudinal data for the second change. In both cases, interviews were supplemented with company documents.

The first disruptive change: Institutional and technology

During the 1990s, Telenor, a state-owned Norwegian telecommunication company went through a fundamental transformation driven mainly by institutional and technological changes (Elter, 2004). In 1987, an EU Green Paper called for the liberalization of the European telecom industry. Deregulation began to take place during the late 1980s; by 1998, national telco monopolies in Europe had gone.

For Telenor, deregulation meant that it had to radically commercialize its operation and develop an entirely new business model. The first activity its managers had to engage with was to persuade Norwegian politicians that it could no longer continue as part of the public sector, with its employees effectively civil servants. In 1994, the state converted Telenor into a limited company and major transformation could commence. The change program, labeled “P-98,” undertook a reengineering of all major business processes with the aim being to increase the efficiency of the traditional core business that delivered fixed line voice and data lines. Two major international consultant companies were engaged to guide the transformation. In 1995, the consultants concluded that some 15% of employees, 1,600 in all, would have to leave and at least as many again would have to be retrained for the new business model. In terms of the civil service, labor union-dominated culture that had existed at Telenor for more than a century, this was unprecedented. Telenor managers and unions negotiated a collective package. Surplus employees were placed in a separate unit that provided career assessments, training for new positions within Telenor, assistance in finding employment outside Telenor, or early retirement. By 1997, of about 4,300 people who had been in the placement unit – nearly 40 percent – had left Telenor, almost half had received training to take on new positions in different Telenor units, and about 10 percent had taken early retirement.

Another, for Telenor, unparalleled aspect to “P-98” was that managers distinguished core from non-core activities such as assembling radio masts. Managers span off non-differentiating functions that, once sold, were subsequently sourced.

Regulatory change was not the only driver of legacy removal at Telenor. Managers at Telenor were also well aware that two technological leaps involving the digitalization of voice, picture, video, and cordless transmission of digital data would have to be confronted. Part of its public ownership heritage was that Telenor had housed a research department that had developed many of the necessary competencies for this new mobile telephony era. Nevertheless, in 1994 the notion that managers of a former monopoly—one that up until the mid-1980s had not even been capable of effectively delivering a basic fixed-line phone subscription service—could leverage these was not obvious.

However, Telenor managers and its consultants sensed that fixed-line Internet, content and mobile telephony were the most promising options for future growth. Not only did they
embrace the new technologies, they also removed the resources that underpinned the legacy services. To give some examples, the old data transmission lines were closed down in favor of new Internet connectivity. The first-generation mobile telephony and pager service were wound down in favor of GSM telephony with in-built SMS services. ADSL Internet lines replaced the ISDN service, and the X-400 e-mail was discontinued and substituted with Internet-based e-mail.

Seizing was also a critical activity. During the 1990s, for the first time in its history Telenor started to buy stakes in external content providers. It also started acquiring IT companies and encouraging new ventures to emerge within Telenor. Organized as separate business units, the new ventures were allowed to experiment. Telenor managers governed these operations as a portfolio of startup companies. The new startups provided services such as fixed-line Internet connectivity, new media and directory services, IT services, software companies, cable TV, and satellite TV communications.

The largest of the new units became Telenor Mobile, which provided mobile telephony services starting with 2G and at later stages, 3G and 4G. Telenor also started expanding internationally with both mobile operations and fixed-line Internet services. When Telenor entered the 2000s, the mobile business turned out to be the most successful of the new ventures, and Telenor accelerated the selling-off or closure of less profitable businesses. The changes in Telenor that played out during the 1990s fundamentally transformed the company into an international mobile enterprise that captured the massive growth in international mobile industry during the first decade of the new millennium.

Managers at Telenor also had a focus on process improvement and cost-cutting. They applied multiple process improvement techniques such as ‘business process reengineering’ (BPR), Quality Assurance – ISO-9000, and ‘Lean-thinking’ to remove processes that did not add to customer value. Added to this, during the 1990s, Telenor managers consolidated the seven regional operations into one national operation.

During the 1990s, Telenor seized new business opportunities by using structural ambidexterity when diversifying to ensure that each venture could swiftly pursue new business opportunities and that the major transformation of the fixed-line core business did not hamper the new ventures. We observe that Telenor seized new business opportunities mainly through establishing new companies that developed new product businesses. As the technology advanced, transformation occurred and entirely new services based on new business models emerged.

However, during this period of transformation Telenor managers had to remove legacy resources. We observe five distinct removing capabilities: 1) Remove redundant employees and shifting competences, 2) spinning off business units, 3) closing down products, services and functions, 4) cost-cutting and process efficiency, and 5) centralization to remove duplication. Building the new would have been insufficient without the dynamic capability of legacy removal and the orchestration and timing involved. Otherwise, Telenor would have been yet another Kodak story.

**Globalization and technological change**

The extant business models of mobile telco multinational companies (MNCs) are constructed on voice and Internet connectivity platforms. Since at least 2015, established telco MNCs have been responding to the prospect of the disruptive effects of digital technologies. With the introduction of high-speed mobile Internet, users could replace telco voice and messaging with software based services such as Skype from Microsoft, FaceTime from Apple, Facebook Messenger, and many more. The telco business model collided with busi-
ness models from the Internet and IT industries, not least “born-digital” companies with no telco legacy. The core value-proposition consisting of voice, messaging and connectivity sold per megabyte is under severe threat. The consensus among incumbent telco MNCs is that they need to develop new platforms that enable them to develop business models grounded on digital services provision (DSP). As an industry analyst summarized the telco industry in early 2016:

The case for telcos becoming DSPs has been clearly laid out. Telcos must find new ways to compete in an evolving market, and the delivery of digital services is a way to re-captivate a customer base that has turned to cheaper, more convenient online services such as WhatsApp and Netflix (Cary, 2016, p. 2).

Unlike their existing transaction platforms that facilitate simple exchanges (e.g. voice-for-fee and messaging-for-fee), telco MNCs are under pressure to develop additional industry platforms that can serve not only as building blocks for their own digital services, but also for third party innovators. These new platforms facilitate the provision of digital services, but additionally the accumulation of data that through artificial intelligence (AI) and machine learning can facilitate personalized services and interactions with users. However, the future of their industry platforms will ultimately depend on the degree to which these attract eco-systems of third-party innovators who choose to congregate around them in order to develop complementary digital services (Gawer & Cusumano, 2014).

Two particular aspects to the extant telco’s reconfiguration challenge should be noted. First, a DSP ambition necessitates new software platforms. The same industry analyst observed:

While many telcos are eager to deliver digital services, they also agree that their existing IT systems are largely incapable of supporting the new demands that digital services will place on their systems. (Cary, 2016, p. 2)

As such, mobile telcos are obliged from the outset to collaborate with firms that have proprietary capabilities that are critical to their success in the new context. Second, a new business model does not necessarily replace a previous model overnight, but may live side by side for a time (Markides, 2013). Thus, while mobile telco MNCs such as Telenor are under increasing pressure to deliver digital services, they also have to retain their ability to provide voice and messaging services. Consequently, they have to maintain the platform and value chain on which the extant business model rests while developing additional platforms that provide a foundation for new business models centered on digital services provision.

Kodak illustrates the inherent danger of a period of ambidexterity. Managers with stakes in maintaining the extant resources block change because it is not immediate. Managers of telco MNCs have to respond to prognoses that the growth of the mobile broadband market is set to slow down in the next 5–10 years, even in emerging markets. A second prognosis that has even greater implications is the anticipated replacing of the physical SIM card with e-sim (embed sim). When e-sim is introduced in all mobile handsets over the coming 5–10 years, the last industry proprietary piece of hardware that links telcos to customers is set to diminish. With e-sim, the operating system or any software on mobile handset can automatically switch between suppliers of mobile broadband based on defined algorithms in the software. Effectively mobile broadband becomes a utility and the extant business model of the telco MNCs is no longer viable. Indeed, the e-sim reduces mobile telcos to parts of the value chains of, for example, Google and Apple, with no direct relationships to their customers.
Just as Kodak’s top management understood what the future might hold, the top management in Telenor has sensed and is sensitive to future developments. Unlike the previous telco industry platform that offered voice and Internet connectivity and that bound users to telcos through proprietary hardware in the form the physical SIM card:

The next generation 5G-network technology will be designed with a layered technology architecture enabling common operations across countries and network services created by software that can easily be copied across country operations. To reap the commercial benefits of these technologies telcos need a new organizational architecture that supports shared development and network-operations across country market operations. (Vice President, Telenor Research, 2015 in Dasi et al, 2017)

In line with this insight, in April 2016, under a year into his tenure as the new CEO of Telenor, Sigve Brekke summarized Telenor’s new situation and ambition:

We are faced with the need to change rapidly. We will see a dramatic reduction in income from voice. We (therefore) need to embark on a journey from being a traditional mobile operator to being the preferred deliverer of digital services. This will involve putting into place completely different business models to those we have today. We cannot deliver every digital solution ourselves—for the most part, we must do this in partnership with others. (Dagens Næringsliv, 2016: authors’ translation).

Failure to respond to this development would mean Telenor ending up as a utility, limited to selling connectivity based on a semi-redundant industry platform.

Figure 2 summarizes the Telenor’s top management June 2017 view of the capability system Telenor would need to develop in response to the imminent digital disruption.

Figure 2. Telenor top management’s view of the new capability system of revenue creation

Telenor’s core notion is that consumers will discover digital services located on its enhanced industry platform that they choose to use frequently. Digital services will be co-created with and co-distributed in interplay with external partners, together forming an eco-system. A portion of the revenues generated by external partners will accrue to Telenor. The underlying software platforms enhanced with artificial intelligence (AI) both receive data generated by the use of digital services. Thereafter the data are used in real time to personalize services and digital marketing with tailored offerings to consumers. These data will also inform and augment Telenor’s digital marketing, sales and distribution of the platform’s digital services. A
Further function of the software platform, and a second source of revenue, is making data and technical function available to external partners through application program interfaces (APIs). Such data and technical functions can be made available for free, or charged for.

In June 2017, Telenor’s management viewed the company as having ongoing initiatives to build all of the capabilities in figure 2. However making this into a scalable and complete activity system still requires a significant and sustained effort. In Table 2, we have identified a number of current observable managerial activities that have the purpose to reconfigure Telenor’s resources.

### Table 2: Current managerial activities aimed at reconfiguring Telenor’s capabilities

<table>
<thead>
<tr>
<th>Observable management activities</th>
<th>Purpose</th>
</tr>
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<tbody>
<tr>
<td>Company internal research</td>
<td>Sense new opportunities and initial development of advanced solutions.</td>
</tr>
<tr>
<td>Internal innovation programs</td>
<td>Mobilize idea generation among employees and allow them to seize opportunities and develop new solutions based on their sensing of customer needs. (The “Ignite” program was an internal “best potential R&amp;D ideas” competition in Telenor.)</td>
</tr>
<tr>
<td>Organizational development programs</td>
<td>Restructure resources, develop organization culture, and identify competence gaps.</td>
</tr>
<tr>
<td>Education of employees</td>
<td>Changes to the competences of the human resource base by replacing legacy competences with new through education and reskilling.</td>
</tr>
<tr>
<td>Recruitment</td>
<td>Change the human resource base with people possessing new competences.</td>
</tr>
<tr>
<td>Letting go of employees</td>
<td>Release people from Telenor by extensive use of severance packages to remove resources.</td>
</tr>
<tr>
<td>Establish and run transformation programs</td>
<td>Organically change the existing portfolio of ordinary capabilities by changing existing capabilities, building new capabilities and removing legacy capabilities.</td>
</tr>
<tr>
<td>M&amp;A</td>
<td>Acquire companies to extend the resource base, acquire new capabilities, and new products and customers.</td>
</tr>
<tr>
<td>Procurement/ Sourcing</td>
<td>Acquire resources from other companies.</td>
</tr>
<tr>
<td>Spinoff units</td>
<td>Sell non-differentiating functional units or business units to free up capital that can be reallocated.</td>
</tr>
</tbody>
</table>

The table contains activities that are aimed at building new resources and removing legacy resources.

Our ongoing research will examine the observable activities of managers at Telenor. We will not limit our focus to resource-building. We will also examine resource legacy removal. Over the next 12 months, we intend to collect and analyze new qualitative data on managers in Telenor using the company’s internal decision documents, observations, and interviews. The following are examples of significant issues:

**How will managers fund the transformation?**

- The transformation requires investments in new technologies to develop new distribution systems, new platforms etc. This raises the following questions:
- Are the financial markets willing to fund new business models in incumbents, or do they prefer to invest in startups? If not, funding must come from cash flow, which means massive cost-cutting to release financial resources to invest in the new. What are the impli-
cations of developing new market positions and cost-cutting at the same time? Is it possible to carry this out within the same units, or will structural ambidexterity become a necessity?

**How will managers remove resource legacy?**

- The purpose of investing in new business models is doing business in new ways. This implies that the old ways of doing business must be removed. The consequences of removing old ways of work are: shutting down legacy IT systems, laying off employees, removing relations to networks of distributors (which will be replaced with digital), etc. In sum, removing the old is the painful part of a transformation.

**How do managers cope with high uncertainty?**

- Telenor is facing high uncertainty. Managers do not know the willingness of customers to adopt Telenor’s new DSP offerings.

**Discussion**

Teece and Leih (2016:9) remark that, “With deep uncertainty, good management must include the art of imagining a future and endeavoring to build it.” We agree. Further, the evidence suggests that top management at Kodak imagined a future and sought to build it. The expiry of Kodak was far more a failure by managers to remove the resource legacy underpinning their extant business model. We observe that in the 1990s, managers at Telenor were able to do what Kodak managers failed to do. Despite powerful labor unions and labor protection law, managers removed and retrained a substantial proportion of employees. Further, managers discarded existing technologies and invested in new.

In the current ongoing phase of radical change, the challenge is the same, though at an even more rapid pace. In the pre-digital transformation phase, Telenor and other mobile MNCs possessed both prominence and power that they used deliberately and purposefully to orchestrate their value chains in order “to create value (expand the pie) and extract value (gain a larger slice of the pie) from the network” (Dhanaraj & Parke, 2006, p. 659). They are now in danger of becoming bit-players in the value chains of the born-digitals. Securing the financing required for the new industry platform will be a challenging activity. Likewise, acquiring the technological capabilities to realize the new platform. However, we suggest that removal of resource legacy during a period of ambidexterity will constitute a key dynamic capability.

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