# A Journey of Digital Innovation and Transformation: The Case of Hilti

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**Abstract** The Hilti Corporation sets an example how to leverage digital innovation. Hilti has come a long way since its founder, Martin Hilti, envisioned in 1951 the importance of global information systems in facilitating global business. Hilti has made two attempts to harmonize process and data, and since 2006 has successfully run on a single-instance SAP® solution, handling 200,000 customer contacts every day. Since then, the company has undertaken multiple enterprise-wide initiatives to benefit from globally available data and systems, to become more consistent in running day-to-day operations, and to make it possible to realize innovation opportunities that the digital world presents.

Over the course of 15 years of transformation, this digital journey has changed the day-to-day work of thousands of employees and the management and service processes for customers worldwide. Today, Hilti's information systems infrastructure facilitates innovations in digital quality and speed using the latest technology trends, such as cloud, mobile, the Internet of Things, and Big Data analytics. As a digital enterprise, Hilti excels at innovation and transformation. A positive company dynamic in terms of market share and financial performance has proven the digital journey on which Hilti has embarked to be effective, enabling Hilti to continue creating and harvesting new opportunities.

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This case study reports on the key activities, challenges, and success factors of each phase of Hilti's digital journey and discusses the lessons learned and their implications for the company.

## 1 Introduction

Hilti is one of the world's largest players in the construction and building-maintenance industry, manufacturing tools and providing services to construction professionals around the world. Its headquarters in Liechtenstein, the company has more than 22,000 employees worldwide serving its customers in more than 120 countries (as of 2015). Hilti operates production facilities and R&D centers and is heavily involved in diverse technology partnerships. Hilti's strategic foundation builds on a strong, "caring and performance-oriented culture," while serving the core company purpose of "passionately creat[ing] enthusiastic customers and build[ing] a better future" (Hilti n.d.).

Following these principles, the company focuses on product and service differentiation, direct customer relationships, operational excellence, and high-performing global teams. Hilti is not only a production company but also a service company, with most of its employees involved in direct sales. Therefore, a seamless integration of all sales channels and, in a larger scale, of all technological and organizational elements is key to achieving operational and customer-relationship excellence.

Hilti has worked for years on coordinating and standardizing data and processes, and based on its global reach, has benefitted from the full potential of digital transformation. Hilti introduced a series of major initiatives to increase its performance over time and make a smooth transition from a company with locally optimized business solutions to one with mobile and real-time business solutions and advanced analytics tools in place, ensuring continuous improvement, innovation, and value creation. However, new technology-enabled opportunities do not create value straight away but require leveraging holistically the potential of digital technologies to support process innovation.

This case study takes the reader on the digital innovation and transformation journey that helped Hilti redefine business processes and work, become a globally integrated enterprise, and achieve operational and customer-service excellence.

## 2 The Journey

Digitalization per se was not Hilti's goal when it began its digital-transformation journey. Operational excellence, customer satisfaction and the ability to serve its customers' needs (which are now digital or digitally enabled) were at the core of the company's vision when it undertook the global integration of its processes and data.


**Fig. 1** Hilti's journey to becoming a digital enterprise

Given the fundamental nature of the change, Hilti's transformation was 'radical' in scope (Safrudin et al. 2014); it went from the business's transforming IT to IT's transforming the business with new digital innovations, starting from local business integration, moving toward global IT standardization, achieving IT agility, and finally establishing balance (IT, business, employees and customers), that supports digital innovation.

On its transformation journey toward becoming a digital enterprise, Hilti moved through several phases, first establishing a digital basis and then leveraging digital potential, as Fig. 1 illustrates.

To establish a digital basis, a company must first move out of the chaotic phase, with only locally optimized solutions. As long as enterprise's processes, systems, and structures remain in silos and cannot be integrated, the company's transformation journey has little chance of success. Therefore, efforts are undertaken in the 'Global Integration' phase to establish stable and reliable enterprise-wide processes and common data structures that are fundamental for the company. These processes and structures allow a certain degree of flexibility and agility in the 'Modularity' phase, after which the company can start leveraging digital potential. The 'Digital Take-off' phase occurs when the previous innovation and transformation efforts result in the creation of the new digital offerings. Finally, the 'Digital Maturity' phase occurs when leveraging digital potential becomes daily business and is a fully integrated part of the enterprise's business model.

Next, we look into each of these phases in detail in order to describe Hilti's journey to digital innovation and transformation.

## *2.1 Decentral Operations*

When Hilti embarked on its digital journey in 2000, the company's organization, processes, and IT infrastructure were highly diverse and heterogeneous, with silos between its components. This lack of integration always represents a challenge, but even more so in organizations that are undergoing digital transformations. In the digital age, customers expect a single point of contact and consistent behavior across all communication channels as a part of an omni-channel concept. While silos could be hidden or bypassed in pre-digital times, these weaknesses are transparent in the digital age, making organizations more vulnerable to competition. The main challenge that Hilti faced was in the slow and sometime inconsistent ways in which initiatives in pursuit of operational excellence were implemented.

Diversity in the information systems landscape is reflected in the heterogeneity of practices that prevent an organization from acting as one global company. The more global a business becomes, the more important it is to establish standards to ensure unified customer experiences around the world. Though heterogeneity of values and practices comes with the danger of hindering organizations from taking action, it can also have positive effects, as it enables rich inputs and has positive motivational effects.

It takes courage and strong vision to break down silos. In the case of Hilti, the founder, Martin Hilti, supported by a strong and committed leadership team, acknowledged the need for global standards at an early stage of the company's development. His view was not to standardize for the sake of standardizing, to digitize for the sake of digitalization, or to follow blindly established practices or the latest trends. Instead, he sought to achieve global integration and adhere to standards for the sake of business opportunities that may seem hard to quantify in the beginning, although a clear picture of what they mean in qualitative and strategic terms is important.

## *2.2 Global Integration*

At Hilti, the basis of the transformation was established by putting the global processes, systems, and data in place to achieve global integration. These results were strengthened by the cultural and organizational transformation that established support for the transformation among employees and ensured the necessary changes in their thinking and behavior.

### 2.2.1 Establishing the Basis for Transformation: Global Processes and Data

Hilti started the journey with the globalization of its IT functions by introducing common data structures, system landscapes, and processes to eliminate silos and improve decision support, operational efficiency, and customer experiences. The company designed and executed the Global Processes and Data (GPD) program, which contributed to re-imagining the IT organization [e.g., by establishing the role of regional infrastructure managers (RIM) as managing an onsite IT team and reporting back to the central IT team at the headquarters] and put enterprise-wide solutions in place (especially to support globally decentralized sales processes). For instance, Hilti built a global process for CRM that encompassed a 360° customer service, integrated all sales channels, and established a structured, planned sales-management process.

The 'IT Excellence' that the company was developing with the launch of the GPD program required first a comprehensive vision that was aligned with the company's business strategy. The realization of the GPD program started with gaining support for a transformational project, which was accomplished primarily

by building awareness that the project was triggered by the need to pursue new opportunities. Having brought all stakeholders on board and ensured their support, Hilti built a project management team for the following project implementation, which involved several hundred employees in the headquarters, plants, and field organizations.

At all stages, the company communicated the program status and vision to all stakeholders, partners, and employees, which helped Hilti to ensure that the long-term impact of the transformation was transparent to all employees and to overcome resistance. Having committed to developing its 'Transformation capability' as a social process dependent on interaction and communication, Hilti made a step toward more effective and efficient change, made possible the creation of an integrated platform, showed the company's understanding of the topic's importance, and demonstrated its persistence in getting the integration right at each step.

In order to implement GPD around the world, Hilti used cross-fertilization, pushing transformation through peers from various sales organizations, who synchronized their efforts and supported each other. Organizing peer visits for the GPD projects helped to ensure synchronization between the organizations and made the learning and sharing process of the ongoing development of the newly established practices more efficient. Hilti also received support by becoming a ramp-up partner of SAP, which gave it dedicated coaches and support for its solutions.

### 2.2.2 Establishing Employees' Support for Transformation: The 'Cultural Journey'

While the GPD program has contributed to establishing enterprise-wide processes and solutions, Hilti decided to accompany it with a 'cultural journey'. Back in the 1980s and 1990s, the company had made an attempt to standardize IT systems, but it focused on technical changes and did not involve data and process flow, as well as the social component. Therefore, a second attempt was necessary.

Lyytinen and Newman (2008) advocated for a socio-technical balance and stability that ensure positive performance, achieved by establishing, "relationships within and between the system components and its environment" (p. 594). At Hilti, such socio-technical integration was realized by creating an integrated platform and infrastructure while it adopted a 'global' culture. Shared corporate values are essential in building a successful IT strategy. Communicating honestly and clearly and setting measurable targets for processes and activities play an important role. In Hilti's case, this approach helped to build a team that spoke a common language at both the management and the employee levels and to set clear and shared principles for all stakeholders involved.

Brüggemann and Riehle (2013) noted that the, "basic condition of successful IT innovations and transformations lies in understanding the implementation as a social process" (p. 215). They pointed out that this process relies on interaction and motivation, which is why the actions taken by Hilti to focus on commonly shared values and to form a holistic corporate culture supporting the change were so important. As employees represent one of the key competitive advantages of any

company, establishing an open, knowledge-sharing culture was an important element in ensuring support for the change. Hilti developed a shared corporate culture and values step by step through design, realization, and further support of the socio-technical integration. One of the biggest challenges was overcoming the lack of awareness of the company's culture and vision.

The globally shared corporate values have become an essential element of the new IT strategy, even reflected in the IT Core Purpose Statement—"We passionately enable business excellence through global IT solutions,"—which was created to be aligned with the enterprise-wide Core Purpose Statement: "We passionately create enthusiastic customers and build a better future" vom Brocke and Rosemann (2014, p. 703).

As a part of the integration journey, Hilti introduced several processes defined on the corporate level: product portfolio management, market reach, supply chain management, and professional services. The outcomes of these processes were monitored for performance and contribution to the corporate values and objectives. The project team also pointed out the quick wins achieved along the way in order to ensure that the project stayed on track and the results were visible. Doing so strengthened the project's reputation among stakeholders and helped to build their support.

Key Takeaways from the Global Integration Phase:

- Integrate a *strong vision* with *smooth implementation*. Early prototypes and dry runs ensure that the final result corresponds to the requirements and achieves the planned goals while minimizing risk and avoiding unexpected incidents. Only when the goals are clear, and continuous development and improvement of the final result takes place will the structure of multiple integrated elements bring the expected results.
- Earn *credibility* by delivering *tangible results*. A step-by-step approach presented in a simple but comprehensive roadmap and roll-out plan with clear 'quick wins' achieved and communicated ensures project visibility and acceptance. The more ambitious the final goal, the more important it is to be persistent in achieving what is planned. The Hilti case shows that a strategy of delivering tangible results helps to earn credibility from the stakeholders and to build their trust in and support of the ambitious project. A professional and dedicated project team that is committed to and capable of conducting the necessary changes plays a central role in achieving these goals.
- Establish *peer-to-peer knowledge transfer*. The Hilti case demonstrates that peer-to-peer knowledge transfer facilitates the global integration process while taking advantage of available knowledge and skills. Peer visits in the GPD projects helped to synchronize the work between the organizations and to make the learning and sharing process more efficient as new practices were developed.

## 2.3 Modularity

In this phase of the journey, Hilti became more adaptive by exploiting its existing assets and capabilities while at the same time exploring new ideas, opportunities, and technologies. The company chose to pursue the opportunities of business modularity and define areas of business that required integration—covering standard business processes with standard software—instead of those where Hilti could be more agile in experimenting with new technologies—that is, add-ons that cover specific business needs.

The Hilti CIO and his team developed the 'solid core and flexible boundary' concept which provides a framework for 'controlled flexibility'. Controlled flexibility refers to establishing an optimal balance between implementation of fully integrated standard software to cover standard business processes ('solid core') and agility with add-on technology that covers specific business needs ('flexible boundary') as an architecture paradigm within a delivery model as a key element of the IT strategy. Whenever there is a need for fully integrating data, 'solid core' is the choice. On the other hand, solutions that require a lower level of integration should be the adopted in a 'flexible boundary' delivery model. Importantly, the interaction between the two types of solutions is established via standard interfaces to avoid going back to silos.

The concepts of solid core and flexible boundary brought order to modularity, since they conceptually distinguish IT core services that are more mature from IT services that explore innovation potentials and are managed according to more flexible principles. To achieve operational excellence, then, Hilti leveraged the potential of new technologies while keeping all crucial areas of business under control.

With constant competitive market pressure, organizations seek to excel in both operations (continuous improvement) and transformations (process innovation) (Schmiedel et al. 2015). Tushman and O'Reilly (1996) confirmed this dual approach in introducing the organizational ambidexterity theory as "the ability to simultaneously pursue both incremental and discontinuous innovation [. . .] hosting multiple contradictory structures, processes, and cultures within the same firm" (p. 24). In laying out the foundations for this theory, March (1991) noted that the key adaptive challenge for the companies is to develop the ability both to *exploit* their existing assets and capabilities and to *explore* for opportunities, new technologies, and markets. The focus of exploitation is on efficiency, control, and variance reduction, while the focus of exploration is on flexibility, autonomy, and experimentation. While exploitation can help to ensure *current viability*, exploration can help to ensure *future viability*.

With its concept of solid core and flexible boundary, Hilti was able to focus on both exploitation and exploration. *Business modularity* allowed the company to differentiate between high-standardization areas of business like accounting and low-standardization areas like loyalty programs, where deviation from a standard is often necessary. To support such modularity with information and solutions, Hilti introduced the hub structure, where regional hubs supported local hub units with

training and operations (logistics, finance, HR) to leverage the available capacity and knowledge pool. For certain projects, IT could then partner with businesses at the hub or regional level.

Integrated processes provide a solid foundation for operational excellence and digital transformation; still, as Hilti's example shows, organizations need sufficient flexibility and agility to identify and benefit from emerging business opportunities. By reaching higher on the scale of operational excellence, the company can unleash its potential to innovate, and trigger a 'Digital Take-Off'.

Key Takeaways from the Modularity Phase:

- Introduce a *solid core and flexible boundary* principle. Differentiate between business that requires more integration and business that could be more agile and experiment with new technologies in its operations. This differentiation enables the organization to achieve both agility and stability, supporting the idea of *controlled flexibility*.
- *Balance between complexity* (resulting from high levels of integration and automation) and *simplicity* (involving manual effort). The 'one size fits all' approach in Hilti's case was replaced by the choice among solutions (e.g., simpler ones for smaller sales subsidiaries and more complex ones for large plants or headquarters).
- Allow for *context-specific governance structures*, depending on the business area's nature and strategic role. The solid core and flexible boundary principle enabled Hilti to establish the hub structure and manage it efficiently. Other organizations may have other principles and approaches, but the essential element remains: to decide in what area each business type applies and to implement a set of different, well-defined management approaches for those areas.

## 2.4 Digital Take-Off

Hilti considered multiple technologies that could have the biggest impact on the market and the company's competitive advantages. One of the examples of digital transformation in the construction industry is Building Information Modeling (BIM) software, which provides new functionality for the planning and management of construction projects. BIM supports digital visualizations of the entire building, as well as separate elements (such as the building equipment), and links it to time constraints and cost-related information. In this environment Hilti and other market players are challenged to rethink their business models, and here Hilti's strong IT-enabled innovation capabilities are important assets.

As a part of 'opportunity discovery' various technologies (like IoT and Big Data) were examined for, among other factors, their disruptive potential. As an example of such opportunity-identification activities, Hilti conducted workshops with students and colleagues from the University of Liechtenstein to reveal the business potential of in-memory technology at an early stage in its development. As a result,

Hilti envisioned the creation of a multifunctional Sales App that would improve the performance of the sales and support processes that account for a major part of the company's business operations.

Functional affordance theory suggests that technology offers the possibility for action only in relation to specific use cases (Leonardi 2011; Gaver 1991; Seidel et al. 2013). To ensure that the innovation process is business-driven, relevant use cases have to be identified first, as only then one can explore how contemporary digital technology can offer new possibilities for action in such use cases. For many organizations, exploring the use of IT requires a new mindset, because the predominant logic has been on exploitation, rather than exploration (vom Brocke et al. 2015b). In fact, changing this mindset and having differing mindsets (some focused on exploitation and some on exploration) in one organization at the same time is a challenge for a number of companies. Hilti benefited from reaching out to universities around the world, as doing so allowed it to include divergent and innovative thinking, and methods like Design Thinking helped to foster innovativeness (Plattner et al. 2009, 2010; Johansson-Sköldberg et al. 2013).

In the Digital Take-Off phase, which is the stage in which Hilti resides currently, Hilti focuses on establishing three key elements: digital processes, digital offerings, and digital interfaces. Taking a closer look at the three elements of the Digital Take-Off at Hilti shows how the IT function helps to provide the needed technologies and ensures that an effective and efficient operating model is implemented.

The work stream for *digital processes* supports the delivery of services that enable business process and workplace excellence and bring value for all stakeholders. Hilti constantly looks for improvements in the way it works, striving to bring collaboration, reliability, usability, and productivity to the next level. In rethinking how the company works, Hilti builds on its previously created digital basis (global integration and modularity) and focuses on both workplace and business-process solutions. Hilti also strives for device independence in order to be ready for upcoming technologies.

Hilti pays special attention to areas that refer to digital processes. For example, data integration across all channels and the consequent use of analytics help Hilti to provide guided selling solutions and to increase its effectiveness in selling innovations. Establishing the Hilti Cloud helps to enable the agile development and deployment of customer-facing applications. Hilti has also prepared well for its Digital Take-Off, as new solutions are fully device-independent. For example, touch readiness in applications is guaranteed, and mobile Apps run on hybrid devices. This approach supports employees in choosing their preferred devices. The adoption of new devices, such as wearables, can also be realized quickly based on this preparation.

Another dimension of Hilti's digital processes refers to how Hilti brings experts together. Hilti's social media helps to integrate backend experts into sales processes, thereby facilitating customer relationship management. Overall, Hilti considers all kinds of new initiatives (from social media to cloud technologies, from touchscreens for sales forces to virtual desktops) to enable and support digital processes.

(2) The *digital offerings* stream focuses on software and software-based services to support customer offerings and product-related processes. Introducing digital

technologies in such processes might not bring immediate financial value, but it results in valuable strategic benefits and competitive advantages achieved in the mid-term. Among some of the topics that Hilti has been investigating in this context are adaptive tools, layout integration, and asset management (Cousins 2015).

The adaptive tools concept involves multiple elements, from using sensors to detect potential future problems, to the tools ability to adjust the settings depending on a situation, without a person being involved (although the settings can be corrected by an operator). This capability dramatically decreases the standard set-up time for tools and allows for preventive maintenance.

The layout-integration concept refers to the use of data obtained through RFID or a wireless internet connection to trigger a variety of actions or changes in the workpieces' characteristics. Completing multiple operations can now be done without referring to additional guides to define the next steps, which also decreases risk related to human error.

(3) The *digital customer interface* stream concentrates on digital technologies for market reach related to digital interfaces. As a part of product support, Hilti provides its customers with an application for selection, ordering and usage support for the entire Hilti product and application portfolio. This interface facilitates more efficient, productive, fast, and easy communication between customers and Hilti.

One of the many effects of Hilti's IT strategy was that no single technology ever stands alone; instead, the smart combination of technologies, both innovative and conventional, creates affordances in specific use cases (vom Brocke and Rosemann (2014) and supports the organization's 'Innovation Capability' during the Digital Take-Off. Brynjolfsson and McAfee (2014) described the recombination of technological inventions as one of the main drivers of digital transformation in the second machine age. They reflected on the term 'general purpose technology' (GPT) as technologies like steam power and the automobile that radically change how we live, work, and manage our economic activities. Treating information and communications technologies as a GPT enables the continuous reassembly of existing building blocks to yield additional value through recombinant innovation. The authors emphasize the great potential of this combinatorial view of digitization as compared to the traditional perspective that innovations are used up and discarded over time.

Hilti has come a long way in demonstrating its ability to recognize the potential of digital technologies and giving priority to those that are aligned with its strategy. As Safrudin et al. (2015) put it, "innovation capability in digital enterprise refers to the ability [not just] to develop ... novel ideas, but to position those ideas into widely used practice that adds value for the end user." Therefore, Hilti eschews the 'nice-to-have' trends in favor of considering each option while staying flexible and proactive enough for fast implementation and learning. Leveraging and configuring the innovation capability is an essential condition and enabler for successful business results in a digital world.

Key Takeaways from the Digital Take-Off Phase:

- Innovate when the *right technology* meets the *right use context*. The Hilti case presents examples of how to identify such use contexts and how to guide

innovation toward the most value-creating scenarios for an organization. As functional affordances are rarely provided by a stand-alone technology, finding the right combination of new and established technologies can lead to reach higher levels of innovation.

- Ensure that the innovation process is not technology-*driven*, but technology-*enabled*. The major technology trends provide opportunities to explore the advantages of diverse business and technological options. The Hilti case shows that innovation should not focus on seeking a use for a new technology but on understanding its strengths and weaknesses and considering whether using them is beneficial to one's business.
- *Focus on the strength* of your organization. While considerable flexibility is needed in order to adapt to change, the identity of an organization is key to finding a strong position in new market structures. Successful companies find ways to demonstrate their values in the digital world. Hilti's clear customer focus has been key to identifying value-creating use cases (e.g., the aforementioned Sales App), in which the company could improve how it serves its key purposes. While an ocean of opportunities may arise through digital technologies, the business models that prove successful are those that are in line with existing values. In this regard, embracing digital transformation successfully goes along with re-focusing on the organization's core values and strategies.

## *2.5 Digital Maturity*

Based on the capabilities built earlier, Hilti began its Digital Take-Off, creating digital processes, offerings, and interfaces. The next step will be the Digital Maturity stage, which integrates digital innovations into the business model as part of the company's day-to-day business.

Hilti's journey illustrates how digital capabilities build on each other: global integration enables controlled modularity, which enables the Digital Take-Off, which prepares Digital Maturity. Such an overall transformation is can be successful only if all of these phases are mastered step by step, neglecting none. However, technical and non-technical capabilities may be built up in parallel and in an accelerated way. While deep knowledge regarding contemporary technologies is key, leveraging technologies requires extensive organizational competencies in multiple domains, such as organizational culture, skill development, governance mechanisms, and strategic alignment of related initiatives.

At the previous stage of its digital transformation journey, Hilti focused on three key functions: digital processes, digital offerings, and digital customer interfaces. The company chose digital technologies to be implemented in order to achieve strategic benefits. In 2014, Hilti started a large-scale strategy development process in which the role of IT was re-investigated in all areas of business. It was recognized that the extent to which IT can be used keeps extending, in particular directly into products and services.

Working in the context of constant digital advances, companies must develop their capability to sense the environment, identify needed data, and create a new customer experience, offering not only products but also integrated, digitally enabled services. This transformation capability plays a major role in a company's ability to establish a digital enterprise.

Along with innovation and new opportunities comes system complexity. Therefore, companies must ensure that the right processes are in place to manage this complexity and frame innovation within their socio-technical systems. The Hilti case gives numerous examples of how digital innovation must consider the wider environment of information systems that speeding up a process is backed up by the socio-technical environment so that related processes or people do not become new bottlenecks.

## 3 Conclusion and Key Learnings

This case shows how a company in the traditional construction industry can transform by adding digital technology throughout the value chain. At Hilti, global integration and modularity provided the basis of a digital transformation, from global data and process harmonization in the beginning to a phase of transformation within Industry 4.0 and the Internet of Things. RFID chips inside tools, preventive maintenance, and advanced asset management are just some examples of the digital technologies from which the company was one of the first to benefit.

However, digital capabilities are highly specific to an organization's context. By going through the phases described above, Hilti built a strong transformation capability, enabling the company to pursue this digital journey. This transformation capability is not limited to technology, but to a very large extent it also embraces organizational structures. The Hilti culture sets the motivation and the mind-set for continuously innovating business through IT (vom Brocke et al. 2010). The Hilti case also shows that a deep understanding of the organization's socio-economic environment is essential if a suitable digitalization strategy is to be developed (vom Brocke et al. 2015a; vom Brocke et al. 2016), as what works for one organization does not necessarily work for another. Aligning both the market dynamics and the strategic positioning an organization's individual DNA plays an important role.

Above all, the Hilti case demonstrates the importance of building digital capabilities in order to master and benefit from digital transformation. Hilti started to build these capabilities long before it became a general trend, and it was through ambitious, ongoing projects that Hilti continuously challenged itself and grew. Hilti's strategy is subject to continuous revision and adaptation to help ensure success.

The transformation that took place at Hilti will never stop, as a truly digital enterprise recognizes the need to succeed by meeting challenges, questioning the status quo, and achieving efficiency and effectiveness by exploring new resources and opportunities and exploiting existing ones.

**Key Learnings**

- Digital transformation requires a *backbone*.
- The 'digital backbone' is a prerequisite to pursuing future developments. A company's digital strategy can be a façade—rather than a fully implemented architecture (Tumbas et al. 2015)—that shows a concept of the organization in the digital world for employees and customers.
- Digital transformation *should not* be adopted *for its own sake*.
- Digital transformation focuses on meeting customer demands and requirements rather than blindly pursuing the latest trends, but customers expect these digital offerings, so a company that does not offer them loses customers.
- Digital transformation requires *a strategy*. In order to guide and align related actions, digital transformation strategy should outline key objectives, expected developments, and related actions, and it often gives an organization an identity in the digital world.
- Digital strategy implementation requires *courage*. Future market mechanisms are hard to foresee, and there is little guarantee of economic success. During Hilti's multi-year journey, it made courageous decisions that enabled new opportunities for the organization.
- Digital transformation is not a *source* of income but a *means* by which to earn money.
  Customers expect digital offerings to come free of charge, so building digital capabilities should be seen as an investment. That said, the long-term horizon of such investments must be communicated clearly as preparing for a longer-term payoff mostly in *strategic* terms without raising expectations for an immediate payoff in *financial* terms.

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