

RIDING THE WAVE

How banking IT can successfully cope with a world of constant change

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Everything is in flux

Stability is outdated. Predictability is a thing of the past. Journalists, analysts and researchers long ago announced that uncertainty is the "new normal" and declared constant change to be the only certainty in life. Entire industries are experiencing upheaval, creating new business conditions or are losing former business foundations. New players are suddenly appearing out of the blue or from the ranks of established players. They are revolutionizing markets, thereby overtaking others or immediately being made obsolete again.

Today's challenge no longer consists in the change itself. Rather, it lies in finding the right way to prepare for and behave during the period of change. In a world of permanent change, it is less important to be able to predict the new direction and the concrete coordinates of imminent changes, and more critical to possess a coordination system that allows a business to react immediately and flexibly, enabling it to go in different directions.

"But banks are different." – Without a doubt, banks have an important mission in society. They are regulated by society and cannot change their business model. That is also why banks are saved by society when they are in trouble. Furthermore, the banking sector's high entry barriers and security requirements protect the industry by keeping potential competitors from entering the market. Finally, banks are currently preoccupied with the implementation of regulations (Basel III, SEPA, financial transaction tax, etc.), so that much of their energy is bound up in these changes, leaving no time for disruptive issues.

Countless examples from other industries show that this situation provides fertile soil for fundamentally new business models. These models are honed in the shadows and develop their critical mass in secret. Once this critical mass has been achieved, the waves of radical change are unstoppable. – Banks are therefore not so different; they simply act behind seemingly higher walls. They feel safe there, but this security is illusory, because a wave of change will also wash over them.

In the end it matters less who discovers a "new world," and more who puts the new world onto the agenda in order to immediately be able to play the new game and win it. Agility and the willingness to change together with vigilance and the right timing become qualities that lead to success. They form the coordination system with which disruptive changes can successfully be mastered – in order to remain on top and ride the wave, as long as it brings with it the promise of success.

Recent History

"The internet is changing everything." By now, this statement is no longer controversial. However, it is also old, simplistic and trivial. It is already so old that no one can remember when it was surprising. And those who had been quick to declare: "The internet has changed everything," have since learned that the true revolutions are yet to come.

Despite the accuracy of this statement about the fundamental change caused by the internet, it is simultaneously not very informative. As the statement is too vague, it cannot be used to derive conclusions for one's own industry or actions. The only certainty is that no industry will be spared a fundamental upheaval. While some have already been hit by their first wave, others have yet to experience it.

Without a doubt, banks belong to the second group and can therefore learn from those who have undergone successful transformations. Analyzing markets in different phases of their radical transformations – such as the music industry and the book publishing industry – helps us to prepare for the "bank wave". Although the situations are not exactly the same, the mechanisms of disruptive change and the reactions to this change are surprisingly similar.

The development of the music industry over the last few years has lead to a massive restructuring of the sector. The following essential facts provide insight into these changes:

- 1982, the Fraunhofer Institute for Integrated Circuits (IIS) in Erlangen: Beginning of development of the data compression standard later known as MP3.
- July 1995: The data format ending .mp3 is established and completes the development and the standardization of the process.
- 2001: The music exchange forum Napster achieves its peak in global traffic (2 billion files exchanged; 80 million users). The distribution of MP3-coded music via the internet becomes a mass phenomenon. Members of the music industry file legal complaints and finally take over Napster, shutting it down in July 2001.
- April 2007: EMI sells DRM-free music (DRM = Digital Rights Management) for the first time ever via the iTunes Music Store, launched in 2003. Today, DRM-free MP3 music has become the norm in all download portals.

This example shows that the technology was available for six years before the fundamental attack on the industry was launched. After this attack, another six years passed before the market participants understood that they had not won the battle – and never would. In Germany, the annual sales of the music industry, which had previously also been known as the "sound carrier industry", fell from 210 million to 147 million CDs. This was accompanied by a dramatic drop in price. Apple became the leading global purveyor of music due to iTunes. Despite these changes, today more than 70 percent of the music market is still dominated by an oligopoly that already existed in 1989. The transition from the six previously existing firms to today's three firms occurred exclusively through mergers and not through the appearance of new market participants. Under enormous pressure, these firms managed to completely transform their business models

A completed transformation – the music industry

and to find a spot in the "new normal" of the music market that continues to provide their shareholders with considerable dividends. The price the participants paid for this was, however, extremely high. Central aspects of the old means of adding value had to be given up to other actors or simply don't exist anymore today. New sources of value creation had to be found and exploited. Each and every employee in these companies was forced to radically reinvent his role. But this transformation has been successful, whereas the early "heroes" of the internet music scene, such as Napster, have been marginalized for the most part.

A few facts will also help illustrate the extent of the transformation in the book market:

publishing industry

A current transformation - the book

- 1971: Michael S. Hart at the University of Illinois starts the Gutenberg Project. The mass digitalization of books begins. Today (in 2012) the project provides online access to 33,000 copyright-free texts, including 700 German texts.
- 1999: The Rocket e-book is the first serious e-book reader to appear on the American market.
- November 2007: Amazon introduces the Kindle, followed a full two years later by the iPad.
- July 2010: Amazon USA sells 180 e-books for every 100 hardcover books. Amazon Germany has over 850,000 e-books available for download at this time.

In Germany, e-books accounted for about 0.5 percent of total sales in 2010; in the US they accounted for 8.4 percent. German publishing companies perceived themselves as well protected against the threat from e-books due to fixed book prices. In Germany, 65 percent of all publishing companies did not sell any e-books during the year 2010. The e-book platform of the German book trade (libreka!) had 130,000 books on offer at this time, of which about two thirds were protected by DRM. In October 2011, the University of Mainz presented a "reading study", according to which reading using an e-reader is, objectively speaking, equal to or easier than reading from other materials, but that large numbers of readers are rejecting it.

One does not need the gift of prophecy to realize that the traditional book market is being revolutionized by the e-book. Products that today make up 0.5 percent of total sales will dominate the market in the near or distant future. How near or distant this future is cannot be predicted.

However, one can predict that the actors who will achieve success in the long term are those who prepare for the transformations. Publishing companies alert to the change still supply 99.5 percent of the market with paperbacks, but talk almost exclusively about e-books at the Frankfurt Book Fair. They are orienting their firms toward the future source of value creation without causing much of a fuss. Large publishing companies with branches in English-speaking markets, in particular, are following this strategy. For example, Random House, a subsidiary of Bertelsmann, recently established an agency model for e-book sales that can be transferred to Germany at any time. The number of such players in the book publishing industry is not as large as the media excitement surrounding this topic might suggest. Many publishing companies are attempting to bind the artistic value of a book to its physical incarnation and are thereby wasting the time needed for the inevitable transformation.

With 3.5 billion euros in official annual turnover, the taxi market in Germany is, based on its volume, one of the largest service markets. The volume of commissions alone is considerable in light of the approximate annual number of 350 million transportation operations.

An impending transformation – the taxi industry

The iPhone was released on the German market in November 2007. This created a platform for apps that use GSM and GPS, among others, in one device. In March 2010, a Hamburg-based start-up company launched an app called "myTaxi", which allows customers to order a taxi directly. This order circumvents the established taxi call centers and generates critical benefits for taxi drivers and customers. A waiting customer can look at a map on his iPhone and determine the current location of the taxi he ordered.

It is foreseeable that the basic principle of this app – and meanwhile of other comparable apps – will revolutionize the taxi industry to a greater extent than the introduction of easily manageable and inexpensive mobile phones. Taxi call centers, high commissions, radio devices that cost several thousand euros, taxi parking spaces and taxi driver associations will become superfluous or at least be called into question. Taxi driver associations, which until recently felt completely secure in their regional monopolies or oligopolies, are now reacting instinctively with a backwards-oriented defense. They are thereby reproducing the behavior of the music industry in 2001. Very few associations are actively searching for new sources of value creation or transforming their business model to fit the changes.

The Secure Bank

The three examples describe industries after a fundamental transformation, during a transformation and prior to the beginning of a transformation. The banking industry is not comparable to any of the aforementioned industries, but these examples can nevertheless provide interesting lessons that can be useful to IT managers in the banking sector.

None of the industries described above would ever have thought it could be threatened by a tsunami. Quite the contrary: Each industry could have presented valid and convincing reasons why it was safe from such attacks. Nevertheless, the wave of change washed over them and pushed all of the established market participants under water. There are countless other examples of this phenomenon.

No industry is spared disruptive changes. These waves are caused by the internet and the transition to an information society. They hit the industries at very different times, but always with enough strength to threaten the existence of these industries. It is pointless to speculate when exactly the tsunami will hit or from which direction it will come. The only certainty is that it is coming, and that it will be carried by technological innovations as well as changed customer and user expectations.

A short survey in February 2012 showed that over 60 start-ups currently exist in Central Europe that address the current business situation in banking. The focus of most of these companies currently lies in fields linked with the private customer mass-market. It is impossible to predict whether one of these firms will one day cause a tsunami on the German market, nor

History cannot be stopped

can one speculate whether such tremendous change will be initiated by the business side, the processing side, or even the analytical realm.

Companies that strive to be successful in the future must constantly be willing and able to question their business model and their industry, down to the most basic structures, and to radically change them if need be. Those who assume the market is safe from a tsunami have practically drowned already.

The changes are disruptive but not unpredictable. Market participants with a watchful eye still have time to prepare. The well-known phenomenon of the historical acceleration of market penetration by new technologies, however, leads to a continual decrease in the time left to prepare.

This makes it even more necessary to internalize the fact that backwards-looking denial and defense strategies can provide stabilization only temporarily, if at all, but that these strategies rarely lead to success and are often counter-productive. The vigilance that stems from the willingness to change instead focuses on the future.

The long-term winners of transformations in these industries are seldom the start-ups who initiated the revolution. Napster was not the only one to be marginalized; Yahoo, Netscape and Letsbuyit.com all failed in the end. Even Apple failed on a grand scale with the Newton.

Established companies that have long been around in certain markets and that seek to not only stay on top during the tsunami but even to grow during the transformation, hold on to their business model as long as it serves them, but jump onto the next wave at the right point in time. Once there, they will not want to commit themselves to soon, nor will they want to find themselves running after the standards that have just begun to establish themselves. A publishing company that only sells e-books today will not live to see the future. A publishing company that is unable to sell e-books profitably tomorrow will also go under. Some publishing companies, such as Bertelsmann/Random House or Holzbrinck/Macmillan, are following precisely this strategy and are currently ready to gamble on the e-book in Germany at any time.

The revolutionaries are not the winners

What's the best strategy?

Willingness to change, vigilance and the ability to react in the manner discussed above, are all management virtues that every good manager lives and applies anyway. In this regard, these virtues are nothing surprising or new, even though the subsequent recommendations stemming from them remain important and up to date. Those who concentrate exclusively on defensive strategies or who ignorantly waste their management resources on minor battles are in danger of drowning. Those who include preparation for disruptive changes as a core management area will possess a decisive advantage and will be able to stay "on top" when the wave comes.

On the other hand, agility is the main prerequisite for these virtues. Together with agility, the virtues constitute a coordination system that allows actors to master even disruptive changes. The necessary agility should not be limited to the think-tanks of company boards, but must be deeply anchored in the business model and particularly within the IT of a firm. This is difficult, but possible.

agility. This task is not new to any manager. However, the challenge behind this task is becoming ever more complex for the IT management of banks. With its highly complex architecture, its interdependencies and many points of intersection, banking IT is absolutely not agile. Due to co-location for high-speed trade, trade systems are not simply logically, but also physically closely tied to stock exchange centers. Due to increasing regulation, bank management systems are becoming exponentially more complex and therefore less flexible. In addition, external guidelines and high availability requirements lead to increasing demand for IT capacity. Agility means creating small units and rapidly focusing these units on different topics. Furthermore, IT agility means implementing changes on the business side in systems in the smallest amount of time possible. In short, nothing less than the impossible is expected.

The most logical reaction of the IT manager to this challenge is also not new: It lies in the optimization of the depth and structure of value creation. For an IT department, this means first using standard software – and later outsourcing.

Basic alternatives to this path are not in sight. On the contrary: The rapidly increasing types of standard software available for almost all areas of banking and the success of their providers as well as their clients points to the opportunities and the necessity of standardization. A bank whose architecture is based on proprietary software is heavily invested in nonliquid IT assets. The necessary agility is therefore not available in case of an emergency.

A high degree of standardization in the IT architecture still does not guarantee the speed needed to refocus the IT. In order to be able to quickly adapt the IT to a new business model during a disruptive situation, the IT management of a bank must first have totally mastered the architecture management and, second, have the opportunity to access almost unlimited resources from one day to the next if necessary. This is the only way projects can be planned and implemented quickly, as soon as they become necessary. As keeping internal resources constantly available is not efficient, the mobilization of the necessary resources can only be achieved through a significant amount of outsourcing. In case of a disruptive situation, the IT

Agility is turning into a critical factor for success

department must be prepared both organizationally and in terms of process to draw on services from outside the bank while simultaneously maintaining its leadership position in the process as a whole. This means that obtaining significant IT services on the market as part of the "normal" daily business operations should be part of the regular business model of a bank's IT.

Thus the standardization of IT architecture and the increased outsourcing in the field of application development have become part of the central leverage for success, essential for creating the agility necessary to survive.

The savings bank sector in Germany provides evidence for the success of outsourcing and standardizing possibilities: The associated banks have announced at least their intention to merge the two current solutions into one. Whether this will be successful in one of the next attempts remains to be seen. The large private banks, such as Deutsche Bank, do not have the luxury of combining their IT services in an associated structure, so they are currently focusing on standardization as a first step.

Those who remain rigid and inflexible can only react defensively to change. Agility, by contrast, creates resources. These capacities enable businesses to propel and shape changes in a successful manner.

Those who are agile and willing to change react differently towards their environment. In particular, these actors try to identify any danger and react at the first sign of it. The taxi call center in Vienna tried to use legal means and undercover investigators to fight those taxi drivers who accepted orders via myTaxi. The result was a national press release that brought myTaxi a priceless amount of advertising. Berlin taxi drivers, on the other hand, released their own iPhone app six months after the launch of myTaxi, which provides customers with similar services while maintaining the role of the taxi call center. Since then they have managed to find several dozen more cities in Europe willing to get on board with them and have grown to be a serious alternative to myTaxi. The Berliners redefined their own role and simultaneously created a platform for growth in new areas.

The difference between the two approaches lies in the willingness to undergo transformation. Vigilance, i.e. the recognition of disruptive developments, must be perceived and organized as a search for opportunities instead of for danger. That is the only way that developments can be recognized early on and the correct conclusions drawn, allowing a company to correctly time its jump to the next wave.

The unique characteristics of the banking world, with its high regulatory entrance hurdles and its justified security demands, are the source of both opportunity and risk. These characteristics provide simple arguments to management teams analyzing new offers to disregard these offers as irrelevant. But they also give the team time to prepare the necessary steps during an analysis informed by openness. Then the bank can transform itself at the right point in time on the crest of the new wave, thereby enabling itself to remain "on top" and to grow in the future.

Willingness to change is becoming a design paradigm

Riding the Wave

Stability is outdated. Predictability is a thing of the past. Technological innovations and the corresponding customer expectations drive disruptive change. This leads to change in all areas and industries. Banks are no exception. The strict regulatory framework conditions that form a bulwark against change and seemingly provide protection cannot stop these changes. They only harbor the danger that managers will feel secure. Those who feel secure will be hit harder when an emergency arises, and are more likely to be surprised by a wave.

Banking IT is facing great challenges. As soon as a wave heads toward it, the decisive factor lies in whether or not the IT is able to integrate and implement new technologies. This can include radically restructuring established business models and their related process. Examples from other industries show that this is possible. However, the prerequisite for success is a far-sighted strategy that does not try to win battles that have already been lost, but that cultivates essential virtues and concentrates on building the right coordination system:

- Agility, in order to be able to transform the IT architecture and the IT organization in the right direction at any time, and in all segments of the governance, the processes, and the applications as well as of the infrastructure. The essential elements of this agility are the widespread use of market opportunities through standardization and out-sourcing.
- Willingness to change, so that transformations are perceived not as a danger, but as an opportunity. This willingness leads, first, to vigilance, in order to recognize early on whether a wave is coming, and from which direction, and it enables a constant, curious observation of the "scene", in order to be able to discover in the insignificant start-up of today the dominant business mechanism of tomorrow. This willingness also prepares a firm's ability to react in terms of timing, in order to make optimal use of the established business model as long as it brings success, and to initiate new business models before the market has been split up among competitors.

The origin and timing of the wave is still mere speculation, although tendencies and developments can already be identified. Therefore it is dangerous to gamble on individual trends. However, by using a coordination system of the type briefly sketched here, the necessary preparations can be undertaken that will enable controlled and immediate action in the face of all future developments. Businesses that start down this path today will possess a decisive advantage when the wave rushes in tomorrow. The IT of such banks and their management teams will remain on top, no matter where the wave is coming from or how much force it has.

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