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Strategic IT Management

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Increase value, control performance, reduce costs

2nd edition

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Preface:
What is Strategic IT Management?

This book is based on many years of experience at A.T. Kearney in the consulting sector for strategic information technology. We see 'strategic IT consulting' as strategy consulting geared towards the senior executives responsible for IT; generally, the CEO or a board member responsible for IT, possibly the CIO, and sometimes a head of unit or the director of a subsidiary. 'Strategic' as opposed to 'operative' means not implementing IT but focusing completely on the issue of how added value can be created for the company by using information technology.

Strategic IT management means stabilizing and increasing the sales of the company through new IT-assisted processes and IT systems. IT also means improving the margin protection of products and services, and enhancing customer attraction and bonding.

To achieve this aim, strategic IT management requires a combination of strategic know-how and a thorough knowledge of the company and relevant sector. From the cost angle for the company, key considerations are finding the right vertical scope and issues such as IT sourcing, IT outsourcing and IT insourcing. Companies giving appropriate consideration to both the sales and cost angles of IT are able to achieve significant added value.

This strategic IT guide incorporates the lessons learned from hundreds of strategic IT projects carried out over the past ten years: it covers virtually every field in which information technology is currently employed from major international conglomerates to successful, sectoral SMEs, from the manufacturing industry (e.g. automobile, processsing, engineering, consumer goods, high tech, aerospace and the construction industry) through service providers (e.g. the power industry, logistics/transport, airlines/tourism, retail, telecoms) to the financial services sector, pharmaceuticals/healthcare and the public sector.

This strategic guide provides IT managers with tried and tested solutions for their specific questions and business situations combined with clear practical advice. We also hope that students of computer science, business administration or information management will find it a useful complement to the existing literature and of benefit when entering their chosen careers.

Düsseldorf, October 2003

Dirk Buchta, Marcus Eul, Helmut Schulte-Croonenberg

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Introduction: The Value of IT – New Perspectives for Utilizing IT

What value does IT provide for the company? This has been *the* key question for IT managers and decision-makers at board level since technologization began. From the introduction of the first automated data processing systems to integrating value chains across enterprises, the potential of IT to generate benefit and, in the final analysis, generate value for companies has grown in leaps and bounds.

In the 1970s, the value of an IT investment for automating individual operations consisted of faster and cheaper handling of paper-based activities, and therefore, for example, shorter time-to-invoice and collection cycles for faster inpayments. In the 1980s, the triumphal march of the PC and the first integrated applications not only reduced business process costs, but also accelerated and optimized entire business process chains. For example, in the mid-1980s, systems such as SAP R/2 were already offering integrated processes for everything from procurement, inventory management and distribution to accounting and controlling. Processes ran more smoothly, interfaces were optimized or eliminated, in short: huge potential for reducing business process spending was created. In the 1990s, Enterprise Resource Planning (ERP), Customer Relationship Management (CRM) and Supply Chain Management (SCM) then made it possible to integrate business processes across the value chain.

Since most enterprises began using the Internet at the end of the 1990s, there has been a shift in focus from simply utilizing IT to utilizing it to create and add value. The driving force behind investments has not only been the cost-cutting potential of IT, but also its potential for adding value: IT enables new markets to be discovered and allows companies to overcome the challenges of globalization. Through IT new products are created and IT becomes a sales-relevant part of existing products. Since IT has also started directly impacting operations, it has become a value driver for enterprises.

However, the paradox of IT remains: The real value of IT is not produced where the costs are incurred. The effects of cost cutting and improving the quality of internal processes is recorded by the controller, the increase in sales is registered by the head of marketing. It is the IT manager however who remains responsible for the costs. But what is the relationship between the cost and the benefit of IT?

Strategic IT management enables enterprises to generate value from the use of IT: i.e. measurable and controllable sales boosts and cost savings. Strategic IT management has three crucial imperatives that create new perspectives for using IT:

- **Drive value!** IT justifies its existence through its support of corporate strategy. Deriving *IT strategy* from corporate strategy and/or shaping corporate strategy via IT strategy increases IT's potential to reduce business process costs and benefit operations, and ultimately enhance revenues, and create value. Case studies from a number of sectors show how *IT can be used as an enabler* for business. The more IT alters business operations, the more the company itself will be transformed. Carrying out this transformation in such a way that the user is able to reap the value of IT is the task of *enterprise transformation*. Successful external growth and streamed portfolios demand comprehensive adjustments to both IT and business processes as part of *IT merger integration* and *IT carve out*.
- **Control output!** The value of IT can be measured and thus controlled, but only if the organizational framework of *IT governance* is a given. IT governance provides a blueprint for IT within the company – a kind of IT 'highway code'. *IT planning* that is an integral part of corporate planning identifies cost saving potentials and ensures that the IT budget no longer restricts value enhancement. *IT performance management* is a universal IT management and control instrument that quantifies and controls the value of IT in direct alignment with corporate strategy.
- **Reduce costs!** Cutting costs in IT also means increased performance, yet not by making sweeping cuts across the board. *IT optimization* involves providing the best possible support for business processes at the lowest possible cost. Furthermore, setting up internal IT service providers and sourcing IT externally as part of *IT outsourcing* and *IT offshoring* will also further enhance the cost-cutting potential of the IT.

Based on numerous international consulting projects and worldwide studies, we are convinced that IT generates more value through its benefits for operations than is generated by reducing spending in the IT department itself. In fact, far from spending too much on IT, most enterprises spend too little: In many enterprises less than five percent of the IT budget is allocated to strategic IT projects. In sectors with fierce competitive pressure and a high level of innovation, this is not enough to compete successfully in the long term. Certainly it is essential to reduce IT spending – not least in order to release some funds from the IT budget for strategic projects. However, in strategic terms, it is not reducing IT spending that is most crucial, but rather increasing the impact of IT on operations.

In order to develop IT value, many enterprises must first fundamentally alter their mindset: IT should not only be employed to realize planned increases in company value. As a value driver, IT has the task of identifying and proactively fostering the value enhancement potential of the company. The IT department is more than a glorified technical maintenance team and troubleshooter, rather the CIO is one of the architects of the com-

pany along with senior management, and it is his job to contribute to increasing the value of the company – top and bottom line.

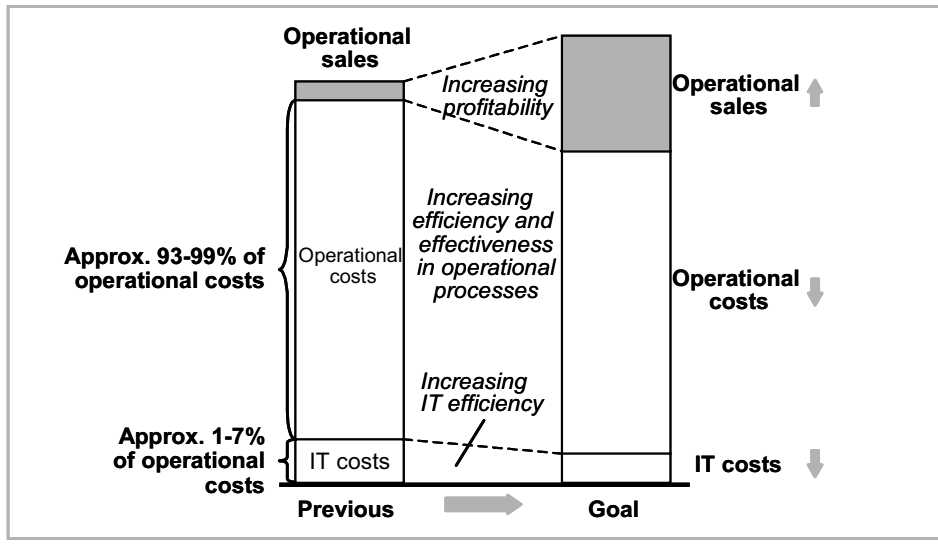


Figure 1: The value contribution of IT; Source: A.T. Kearney

IT investments must be just as measurable as any other investment in terms of the impact on sales and costs (figure 1) – and also in terms of its contribution to increasing the value of the company. Compared with IT's potential to increase the profitability of business processes, assure revenues and increase sales, the cost savings achievable within IT have relatively little impact. Generally speaking, depending on the sector, enterprises reckon on IT costs of around 1 – 7% of sales (see figure 2). Saving 20 percent of these costs could mean reductions representing 0.2 to 1.4% of sales. If the IT budget is large enough, this could well mean considerable cost savings.

In contrast to this, again depending on the sector, total business costs amount to an average of around 90 percent of sales. Using IT to specifically increase value in the area can have a positive effect, for example through faster order-to-dispatch times, higher quality, stronger customer bonding and 'more intelligent' product design. Rather than focusing on lowering IT costs, enterprises should make efforts to implement their IT so effectively – and at the same time of course so efficiently – that they achieve the greatest possible effect on their operations – by reducing business process costs, assuring revenues and increasing sales.

Leading enterprises are already using IT with immense success to create value. And these are not only enterprises in IT-oriented sectors such as the automotive industry,

telecommunications, power industry, banks and insurance or manufacturing companies that have traditionally based a high proportion of their business processes on value creation through IT. A number of leading enterprises from sectors that appear to be less IT-oriented, such as manufacturers of agricultural machinery or office furniture are also enjoying a competitive edge thanks to the sales-boosting use of IT. Furthermore, rapid technological progress and market developments will make it hard for the competitors of these companies to catch up.

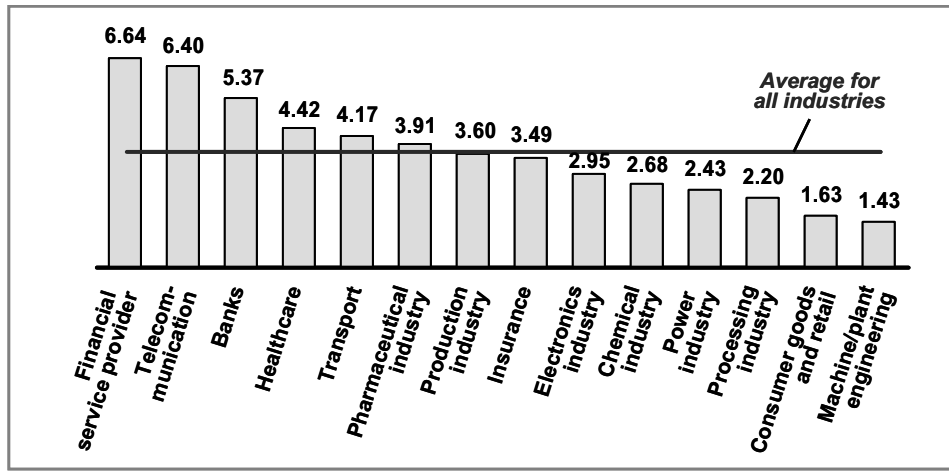


Figure 2: IT expenses/IT budget as a percentage of sales in 2002; Source: Meta Group, 2002

This book presents strategies used by enterprises that efficiently utilize the value potential of IT for their organization. It offers IT executives – be it at group, unit or senior management level – concrete assistance with implementing strategic IT management in their respective organizations.

Part A Enhancing Value – IT as a Value Driver for the Company

CRM, CAD, ERP[1] – the world of IT is teeming with acronyms that promise considerable benefits for business operations. Yet managers themselves are usually only sure of one thing: these terms all involve huge costs. How can they find out which IT investments are worth the expense? This is one of the most widely-debated issues at congresses and in the IT press and also between IT managers and senior executives. And the answer is seductively simple: those IT investments that make the greatest contribution towards implementing the goals of the company at the lowest possible cost are the ones that make most economic sense. But which investments are we talking about?

Future-oriented IT investments must be closely aligned to the goals of corporate strategy. Therefore the job of *IT strategy* is to identify innovative projects that will sustain the competitiveness of the company and increase its value down the line. Using IT in this sense as an *enabler for business* means:

- *Reducing costs for the company* (but not only IT costs) – e.g. by reducing inventories thanks to optimized production planning (for example in the automotive industry), greater transparency and better logistics planning –
- *Strengthening revenues* – e.g. by enhancing customer bonding through CRM thanks to more information about the customer and closer contact with them or through better supply chain management through marketplaces – or even
- *Increasing sales* – e.g. through new business fields such as information services or higher customer benefits through additional product features and supplementary services to the product and 'intelligent products', which bond the product user more closely and permanently to the company and reinforce the customer's inhibitions to switch to other suppliers.

Today most enterprises are well equipped to use IT as an enabler for their operations. Motivated by fears of all DOS-based computers and other systems threatening to crash if not properly prepared for the Y2K crisis at the turn of the millennium, enterprises made enormous investments in IT systems, which in many cases meant replacing legacy applications with ERP systems. The investments made to keep operations up and running were successful – either because the real danger was overestimated or because equipping oneself with new, higher capacity EDP systems (or modifying existing IT systems) pre-

[1] IT terms are explained in the glossary.

vented the ‘year 2000’ disaster from happening: no major shutdowns were reported in the new year (but indeed some smaller ones were). But what counts more is that most enterprises entered the new millennium with high-powered, future-oriented IT systems – perfect conditions for innovative projects. Even the collapse of the Internet hype did not quell the enthusiasm of most enterprises for considering future-compliant IT applications to support operations, including web-based services.

A worldwide study carried out by A.T. Kearney and Harris Interactive substantiates the growing significance that leading enterprises attach to IT for the success of their business. 144 senior executives from European and American enterprises with over 500 million US dollar revenues from the five key industries: automotive, telecommunications & high-tech, consumer goods & retail, finance & insurance, and the processing industries were interviewed about their IT priorities for the year 2003. More than 90 percent had invested in IT as an enabler for their business operations. 65 percent of the enterprises that had grown considerably faster than their competitors in the past five years had made investments in IT that are effective and in clear orientation to their corporate goals. These enterprises have consistently implemented IT not only to improve business processes, but also to specifically enhance the effectiveness and efficiency of their relations with both customers and suppliers. Even more astonishing: over 75 percent of these enterprises are striving to use IT to specifically ensure or increase revenues, for example, by implementing CRM tools to improve customer relationships.

Yet not all companies have the premises for utilizing the potential of IT, although most leading companies have created the right conditions over the past few years. In an annual study carried out in association with US magazine Line56, A.T. Kearney ascertained that the number of enterprises developing their IT strategy with a direct reference to corporate strategy rose from 55 percent to 62 percent between 2002 and 2003. These sector-best companies already introduced new technologies in the start-up phase (63 percent) or at an early stage of maturity (55 percent). But there are still a high percentage of enterprises not yet using IT to realize value for the company.

Between focusing on cutting IT costs and focusing on using IT as a value driver, a company can find itself in one of four stages:

- *IT as a cost driver:* In the first stage, IT is regarded as an overhead factor and thus caught in the classical ‘overhead trap’: reducing costs is of prime importance. The only measures taken are those that can contribute to a reduction of IT spending. In order to lower IT operation and maintenance costs, for example, the applications are harmonized and the infrastructure is standardized and slimmed down (*cf.* Part 3, Chapter 1, ‘IT Optimization’). Although this kind of optimizing the existing IT system holds some potential benefit within the IT department, it does not support the long-term strategic goals of the company. IT is restricted to the basic minimum and projects for new or improved IT solutions are radically cut back. Sooner or later the

IT budget is spent almost exclusively on operating and maintaining IT, which at some point will have to be reduced as well.

- *Optimize business processes with IT*: Enterprises that use IT to improve their business processes, reduce business process costs and improve process quality are an essential step further. In this stage, IT indirectly supports corporate strategy, but the value enhancing potential of IT is not being used to full capacity. However, in order to exploit the potential of IT on business process level, the organizational structures and processes in the company are changed. Furthermore, IT can be used to realize rapid synergies in business processes during merger integration.
- *Ensure and increase sales with IT*: Added value is captured by enterprises that weigh IT costs against the direct IT benefits that can be expected for business. In this stage, IT directly enhances customer orientation, the effectiveness of the revenue side and the integration of the company across the added value chain in direct alignment with corporate strategy. In merger integration, IT not only helps realize business process synergies, but also opens up market-side synergies.
- *Develop new business fields with IT*: In the highest stage of development, IT itself becomes a business carrier, either through 'IT intelligence' in existing products, which creates new or improved product features (e.g. the self-diagnosis and remote-control maintenance of technically complex capital goods with rotating work locations), or as IT-driven services, which supplement the use of the existing product by the user (e.g. computing up-to-the-minute information about traffic jams in the navigation system of a car). This can lead to new business fields for existing products. Suitable innovative IT projects are identified in the scope of the systematic development of an IT strategy. The introduction of new IT systems is anchored in the company with innovative concepts such as BOT (see Part 1, Chapter 2, 'Enterprise Transformation') to realize the greatest possible IT benefit. An IT integration platform enables new business fields from mergers and takeovers to be exploited.

These phases fit together like building blocks: The well-directed use of IT in line with corporate strategy delivers added value for the company through low-cost IT, optimized business processes and increased sales, by opening up new business fields, and creating value for the customer through improved services or innovative product features, as well as value for the shareholders and stakeholders through increased stock prices thanks to higher sales or better cost management.

However, realizing added value with IT will always be restricted to the extent to which users exploit IT functionalities, i.e. there is more to it than just integrating IT strategy into corporate strategy. Leading enterprises not only modify their IT, they also align the entire company structure (including all the interfaces) to their customers and suppliers as

part of a comprehensive *enterprise transformation* process, so that IT can achieve its positive impact on the business processes.

A special role is also played by IT in supporting the external growth strategies of enterprises. When properly implemented, IT has a lot of influence on the short- and medium-term success of mergers in the form of well-directed *IT merger integration,* as well as on the success of disinvestments with *IT disintegration*.

1 IT Strategy – Using IT for Value Creation

Today the business operations of enterprises in many sectors would be unthinkable without IT. Dynamic competition, increasing cost pressures and growing customer requirements force enterprises to make constant adjustments – to their IT as well. The technical possibilities here are infinite – however, which IT investments make sense when depends on the specific market and competitive environment and the strategic goals of the company.

The new perspectives offered by today's IT solutions make IT a propeller for change: In many sectors nowadays the question is no longer 'Which IT modifications are necessary to react to current external changes?' but rather 'Which IT prerequisites are necessary to support our corporate strategy long term?' Some examples:

- *External growth through mergers and takeovers* – Prerequisites of IT are, for example, multilingual systems and open architectures that enable fast connections to newly-acquired business units (see also Part 1, Chapter 3, 'IT Merger Integration and IT Carve-Out').
- *Internal growth through 'virtual' customer bonding* – Prerequisites of IT are, for example, the support of integrated call centers and e-business as well as B2C applications.
- *Internal growth through innovation* – Prerequisites of IT are, for example, customer relationship management and flexible production and billing systems.

Thus, how a particular corporate strategy is formulated provides valuable information on how IT is organized. As part of a value-oriented IT strategy, the business units and the IT department systematically identify the future-oriented and competition-critical IT components that promise the greatest value enhancement for the enterprise. A company-wide IT roadmap points the way to implementation ('IT blueprint'). On the basis of this, depending on their specific situation, enterprises can use innovative IT applications for optimizing business processes, assuring revenues and increasing sales as well as for developing new business potential. At the same time they can learn from enterprises already experienced in the use of IT as an enabler for business.

Deriving IT strategy from corporate strategy

Just what specific value potential a company can achieve by using IT depends – like the corporate strategy itself – on many internal and external corporate factors. In practice,

most enterprises have a tendency to derive IT modifications from the requirements of the business units. This type of procedure is an essential cause of the general dissatisfaction with IT that is prevalent in many enterprises – not only in senior management and the business units, but in the IT department as well. The business units regard their expectations of IT as being insufficiently fulfilled, while the IT department sees itself confronted with the challenge of meeting unrealistic demands, or is unable to fully exploit the actual potential benefit of IT. The senior executives see the IT investments, but are unsure about the (mostly also time-delayed) benefit.

The solution to this dilemma lies in a systematic strategy development process: In the first step, value enhancing IT projects are established under consideration of internal and external influential factors in close alignment with corporate strategy. In a second step, they are evaluated using a business case and in a third step they are integrated into a prioritized implementation plan (figure 1.1).

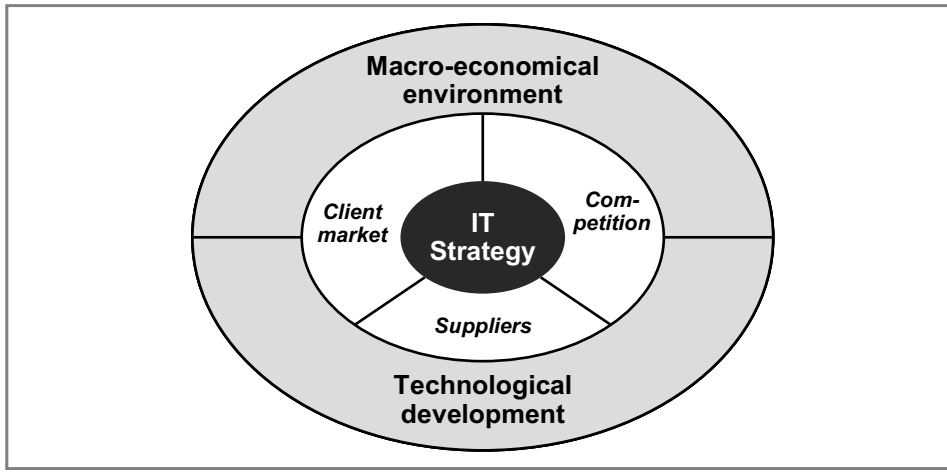


Figure 1.1: Influence factors on IT strategy development

Once the corporate strategy has been developed, a value-oriented IT strategy with a broad perspective must be initiated, which takes not only company-specific aspects with customers, suppliers and competitors into consideration but also macro-economic influences and innovative technological trends (figure 1.1). When developing a corporate strategy it is a matter of course to include macroeconomic trends such as changes in age structure, user behavior patterns, customer demands, and global developments, in order to analyze the future market and cost-cutting chances of the company. As a rule, these are diverted directly into the requirement of IT strategy, which puts the company in a position to make use of this value creation potential.

When developing IT strategy it initially appears unusual to be dealing with the same questions that also arise in the development of corporate strategy, for example: 'How old are our customers today, how will this age structure develop over the next ten years?' or 'What needs do your customers have today, and how do these needs and the buying behavior grow in line with a changing age structure?' However, such questions are immediately plausible if we take a closer look at the effects of macroeconomic changes on target group marketing: Younger people have a wider range of needs, but less money and time than older people; older people like to be approached in a more specific way. These factors have consequences for Customer Relationship Management (CRM) in terms of customer segmentation as well as whether customer segments should be approached using anonymous mass marketing or cross-selling offers on the one hand, or with exclusive, individualized offers from a small but high-quality product range on the other. Thus, IT strategy does not simply estimate the results of corporate strategy, but rather evaluates for its part the influential factors that are already taken into account in the development of the corporate strategy, with regard to its implications for IT.

Tips for IT strategy development:

- *Involve the business units in every phase of strategy development:* At the beginning the users must be involved in order to develop the long-term strategic IT requirements together with the IT department. If the IT department then makes a proposal for implementation in IT strategy, the business units must again be involved in the financial evaluation with the business case.
- *Be open to change:* When the future IT system is being developed, company-specific solutions must be tried and tested. Applications that are no longer in line with company goals must be unconditionally eliminated and migration and replacement strategies must be developed.

In addition to the IT requirements that result from the company-specific market and cost chances and macroeconomic trends, we also have the technological innovations of IT and sector-specific IT developments. Consumer goods manufacturers, for example, should include applications such as vendor managed inventory, universal Collaborative Planning and Forecasting Replenishment (CPFR), in collaboration with the retail trade or Radio Frequency Identification (RFID) in their IT and process portfolios. When developing general technological innovations like CRM or SCM, the best practices of other sectors should also be kept in mind.

In addition to these strategic IT requirements, which result from market developments and changes in the competitive environment as well as technological changes, it is important to take into consideration the in-house requirements of the various value creation phases of the enterprise – from the business units and affiliated companies – and the requirements of suppliers and customers.

Developing an IT strategy for a consumer goods manufacturer

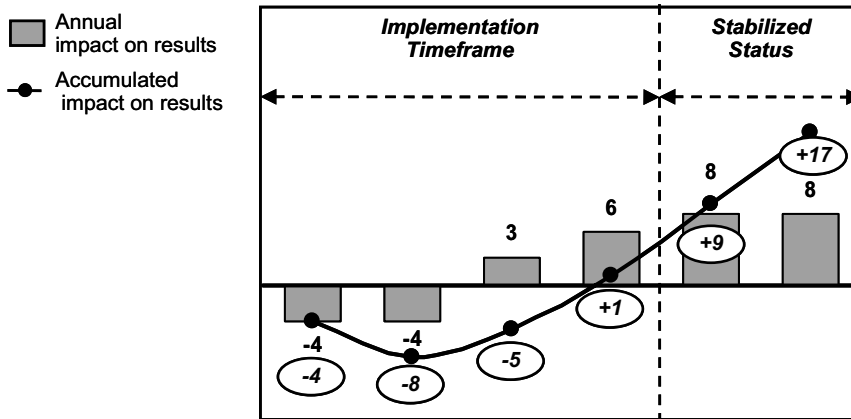
A consumer goods manufacturer, when formulating its long-term corporate strategy for a period of ten years, devoted itself mainly to the topics of international expansion and the consequential restructuring of its logistics. When developing IT strategy, it became clear that it needed to include additional environmental factors. The company initiated a joint project involving the business units and the IT department to set down a long-term IT strategy. To this end, the company environment, i.e. the macroeconomic environment, which is particularly important for consumer goods manufacturers, and the long-term technological trends were first analyzed and their relevance evaluated.

Parallel to the macroeconomic environment, an analysis of the foreseeable long-term technological changes in the field of consumer goods was carried out. Changes in manufacturing technology, for example, will result in changes to the supply chain. One technological development that is especially important to the company is RFID (Radio Frequency Identification). RFID makes it possible to equip each individual piece of merchandise with a non-contact electronic transponder, which records information about the item from a distance of several meters and reports it to a receiving device. The widespread use of RFID will have an enormous impact on logistics and on inventory planning and control. Additionally, RFID makes it possible to electronically record which goods are bought by a certain customer. All of these consequences will greatly alter internal business processes and open up a high level of potential benefit for the companies that use it – and at the same time make considerable demands on IT.

Companies now know which IT components are strategically most important for the future orientation of the enterprise. However, purely qualitative utility estimates of abstract 'improvements in quality' are not sufficient reason for the innovation offensive that this would necessitate. Only a business case that compares the costs for the necessary investment with the results that can be expected, and which also evaluates the time scale for this investment (see figure 1.2), is able to quantify the impact of IT, illustrate its contribution as a value-enhancing enabler for business, and control its redemption in the organization.

The preparation of the business case necessitates close collaboration between the IT managers and the users in the business units. As a rule, it is possible to determine the cost side, i.e. one-off investments in IT (e.g. licensing costs) as well as the running costs (e.g. annual maintenance costs) quickly and clearly. The potential cost reductions resulting from the increased efficiency of operations (e.g. cost savings in logistics through lower inventories due to faster order-to-dispatch times) as well as the sales potential with marketing-oriented technologies (CRM and others) can only be determined in collabora-

tion with the business units, as they are responsible either for the specific process costs in a certain area or for the marketing results.



	2002	2003	2004	2005	2006	2007
Investments/ one-off costs	-4	-6	-2	-2	0	0
Running costs	0	-2	-2	-2	-2	-2
Efficiency increases business processes	0	+4	+7	+10	+10	+10
Impact on results from assured revenues	0	0	0	0	0	0

Figure 1.2: Calculations of business cases

In a third step, the set strategic IT requirements must be evaluated consistently in terms of their contribution to revenues – optimizing the business process costs as well as revenue increase and assurance, from which the running IT costs for maintenance and customer care have been deducted. This systematic prioritization is portrayed in an IT innovation portfolio. For a manufacturing company the portfolio, which evaluates and prioritizes the established IT requirements consistently in terms of their contribution towards optimizing business process costs and revenue assurance, could look something like figure 1.3.

Most enterprises are in a position to considerably improve company revenues by using a strategically planned IT strategy. To achieve fast results, the most profitable investments should be implemented as pilot projects. While initial results are already made at this point, a binding and quantified implementation plan safeguards the realization of the overall productivity increases that are being targeted. An important factor in the implementation plan is to consider, in addition to strategy guidelines, the individual back-

ground situation of each area, as even the best IT will not have any impact if it is not accepted by its users (*cf.* Part 1, Chapter 2, 'Enterprise Transformation').

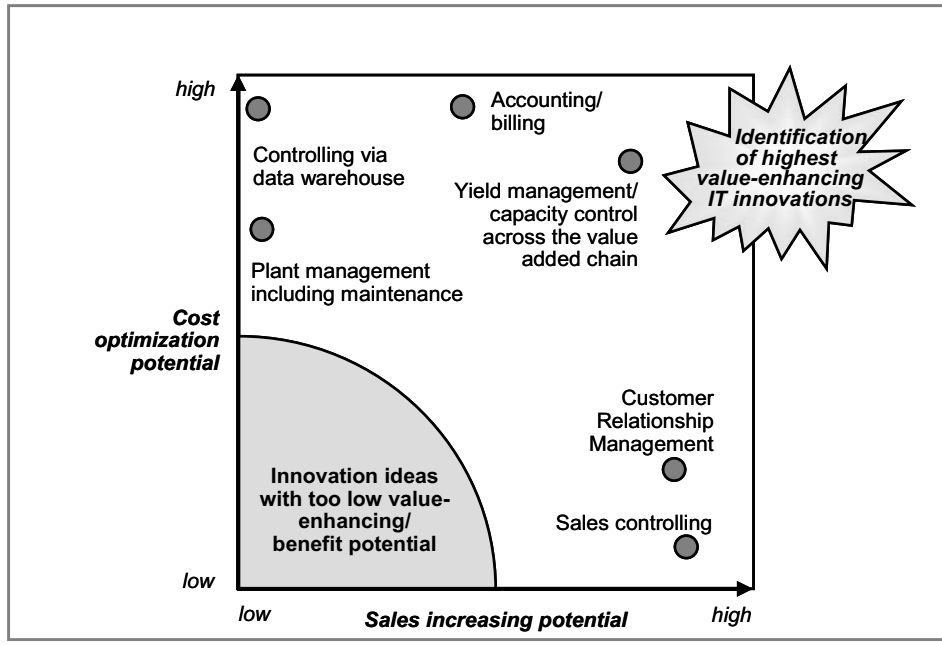


Figure 1.3: IT innovation portfolio of a manufacturing company

Using IT as an enabler for business

The value of IT is measured by the results that enterprises can achieve by using IT in primary business. Many enterprises have already had extensive experience with innovative technologies. It is remarkable that the pioneers in the use of new technologies include not only IT-oriented sectors, such as banks or the automotive industry, but also sectors in which the concept of value creation with IT is not evident at first glance, for example container logistics enterprises or manufacturers of agricultural machinery.

However, not every IT application has the same impact on every company. The possible effects of IT are influenced by a number of internal and external factors. The potential benefit of using data warehousing, for example, depends among others on the degree of standardization of IT in the company. In many cases, the customers and suppliers must also be persuaded to align their own interfaces to the new IT systems of the enterprise, for example when supply chain management systems are used.

When today's enterprises think about the value enhancing use of IT for their business operations, they are in no sense entering unknown territory. They can learn from enterprises in other sectors who have already successfully implemented IT to optimize their business processes, to directly assure or increase their sales or to use IT as an integral part of their end product to trigger new customer demand, thus directly developing new sales potential through the use of IT:

- *Optimizing business processes by:*
  - cutting costs in business processes by introducing and optimizing ERP
  - boosting efficiency and improving customer service with IT solutions and mobile communication technologies
  - reducing and improving supply chain output with integrated supply chain planning systems (SAP APO)
  - reducing costs with IT-assisted maintenance in machinery-oriented business lines
  - sinking procurement costs through comprehensive system support
- *Assuring and increasing sales by:*
  - diversified potential benefit with data warehousing
  - faster product development with Product Lifecycle Management (PLM) in engineering-oriented industries
  - increased sales with CRM technologies
  - faster turnover by shortening clinical phases until registration with IT-assisted document management in the pharmaceutical industry
  - higher level of customer bonding through better information exchange in global container logistics
- *IT as a component of the end product through:*
  - independent IT-assisted services
  - intelligent products

In practice, the potential effects of IT function like building blocks. For instance, it is nearly impossible for a company to develop new, IT-assisted business fields if the company has not intensively studied the use of IT for increasing efficiency and assuring revenues, thus gaining an understanding of the IT learning curve.

Optimizing business processes

Through well-aimed IT investments in optimizing business processes, an enterprise can not only lower costs, but also as a rule increase benefits. For example, the order-to-dispatch time is shortened, flexibility is increased and transparency created, resulting in higher customer satisfaction. New working methods help reduce the error rate, thus cutting warranty costs as well.

Examples of cost and potential benefit by optimizing business processes with IT can be found in almost every sector. The following examples demonstrate how enterprises in all sectors are well advised to assess the potential as quickly as possible, as the results of their competitors are high and it will not be easy to catch up with the resulting competitive advantage.

Reduced costs in business processes through introduction and optimization of ERP

In many cases, the IT landscape of enterprises has grown over time, and includes numerous solutions of their own and isolated projects. With the introduction of an ERP system, for example SAP, between 20 and 40 percent of business process costs can be cut – provided that these structures and the processes of the company are changed, in addition to introducing the ERP system (*cf.* Part 1, Chapter 2, 'Enterprise Transformation'). But even after extensive business process optimization through the introduction of an ERP system, more efficient use of the systems will generally achieve significantly better results (see figure 1.4).

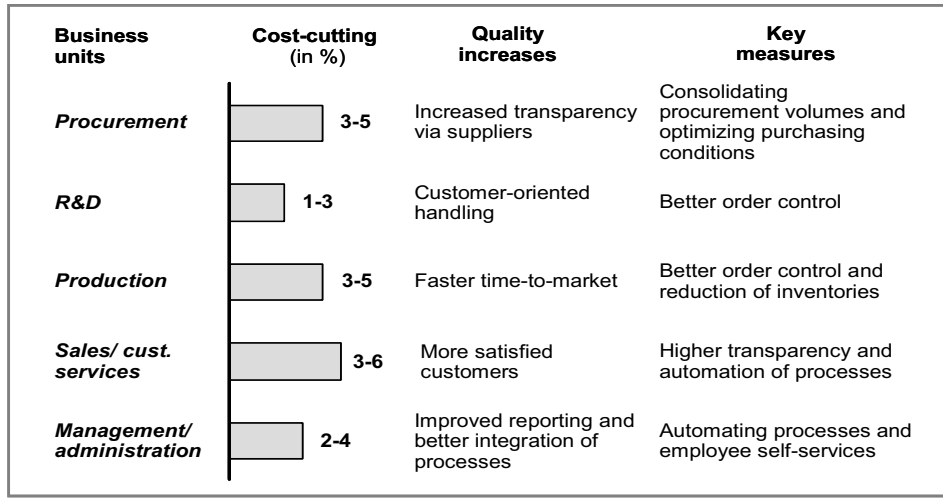


Figure 1.4: Optimization potential of installed ERP/SAP systems; Source: A.T. Kearney

A manufacturing company, for example, had already installed SAP R/3, but despite several improvements was still dissatisfied with the overall effect on operations, and was looking for further possibilities for optimization. In the final analysis, it became clear that when the SAP R/3 system was installed, a consistent alignment with the best practices of other enterprises had been neglected. Together with the business units, additional