

Strategies for Application Management Services

Aligning advanced Sourcing, Portfolio and Governance Structures

Walter Brenner, Falk Uebernickel, Jochen Wulf, Saskia Zelt, Andreas Györy
University of St.Gallen

Michael Heym, Achim Warnke
Navisco AG – Sourcing Professionals



Participants of the Study

We would like to express our gratitude to the 37 companies which have participated in our research. Without their commitment this research study would have been impossible.

Bayer Business Services GmbH

Clariant SE

Daimler AG

DB Systel GmbH

DZ Bank AG

EnBW Energie Baden-Württemberg AG

E.ON IT GmbH

Evonik Industries AG

GALERIA Kaufhof GmbH

Georg Fischer Ltd

Gruner + Jahr AG & Co. KG

Hapag-Lloyd AG

KSB AG

Lufthansa Cargo AG

MLP Finanzdienstleistungen AG

PHOENIX Pharmahandel GmbH & Co. KG

Raiffeisen Schweiz Genossenschaft

Sanofi S.A.

Schweizerische Bundesbahnen SBB AG

SMA Solar Technology AG

SIX Group Services Ltd

Swisscom AG

UBS AG

Vattenfall Europe Information Services GmbH

Vorwerk & Co. KG

ZDF

and eleven further participants who would like to remain anonymous.

Why we did this study...

Over the past ten years we have witnessed powerful advances in the professionalization of IT management. Today, especially the standardization and virtualization of the IT infrastructure and the subsequent market growth of mature service providers enable organizations to access flexible services of higher quality and reliability at lower cost. Nevertheless, even greater potential is seen in the professionalization of application management. As companies permanently need to adapt business processes, their IT organizations are facing an overwhelming demand to build new applications and to restructure their application landscapes. At the same time they are restrained by the increasing cost of support for legacy technologies. Many IT departments are already expected to achieve operational cost savings and efficiency gains continually. On top of that, innovation driven by IT is a necessity for the majority of organizations today.

CIOs have therefore found their ways to focus their valuable human resources on core competencies of their organization and remove commodities and outdated systems from their portfolio. Our study shows that apart from fostering efficient structures in-house, companies are applying a wide variety of sourcing approaches to achieve changes at a faster rate and maintain flexibility.

Within this study we have collected strategies for application management from 37 multinational companies in diverse industries with headquarters in Germany or Switzerland and with revenues from approximately 0.1 to more than 100 billion Euros. If your company is currently planning or undertaking activities to consolidate, modernize or outsource parts of its application management or portfolio, this study may offer you helpful answers and guidelines deduced from insights of the participating companies. We express our gratitude to Hewlett-Packard for providing the financial support to realize this study.



Prof. Dr. Walter Brenner
Institute of Information Management
University of St.Gallen



Dr. Michael Heym
Navisco AG
– Sourcing Professionals

Executive Summary

In this survey we analyze current **strategies in application management** and identify important fields of action for IT organizations. We cover internal processes, organizational approaches and instruments for application management as well as the use of outsourcing. We collected data from **37 German and Swiss companies** and conducted semi-structured in-depth interviews with 53 representatives (mainly CIOs and direct reports to the CIO) in 2012. We combined quantitative and qualitative survey approaches.

Three **general trends** were acknowledged in the majority of the interviews: a high importance of customer IT with a strong influence on application management organizations, a further increase in outsourcing and the refinement of core competencies within application management.

We distinguish three prevalent fields of action in application management: sourcing, application portfolio management and governance. According to the coordination of these fields of action we identified **three different strategies in application management**:

Supporters focus on satisfying business demand and solely use the extended workbench sourcing approach. A formalization of processes or a standardization and consolidation within the application portfolio does not provide significant benefits. **Optimizers** aim at improving the efficiency in application management. They standardize applications, consolidate their portfolio as well as their organization and predominantly apply performance-oriented sourcing approaches. **Differentiators** accomplish organizational flexibility to enable application innovation on top of running stable applications. A flexible process design allows the application of formalized and agile processes on a case-by-case basis.

We deduce **implications and recommendations** which cover advanced outsourcing strategies, measures in application portfolio management as well as instruments for application development and operations.

Contents

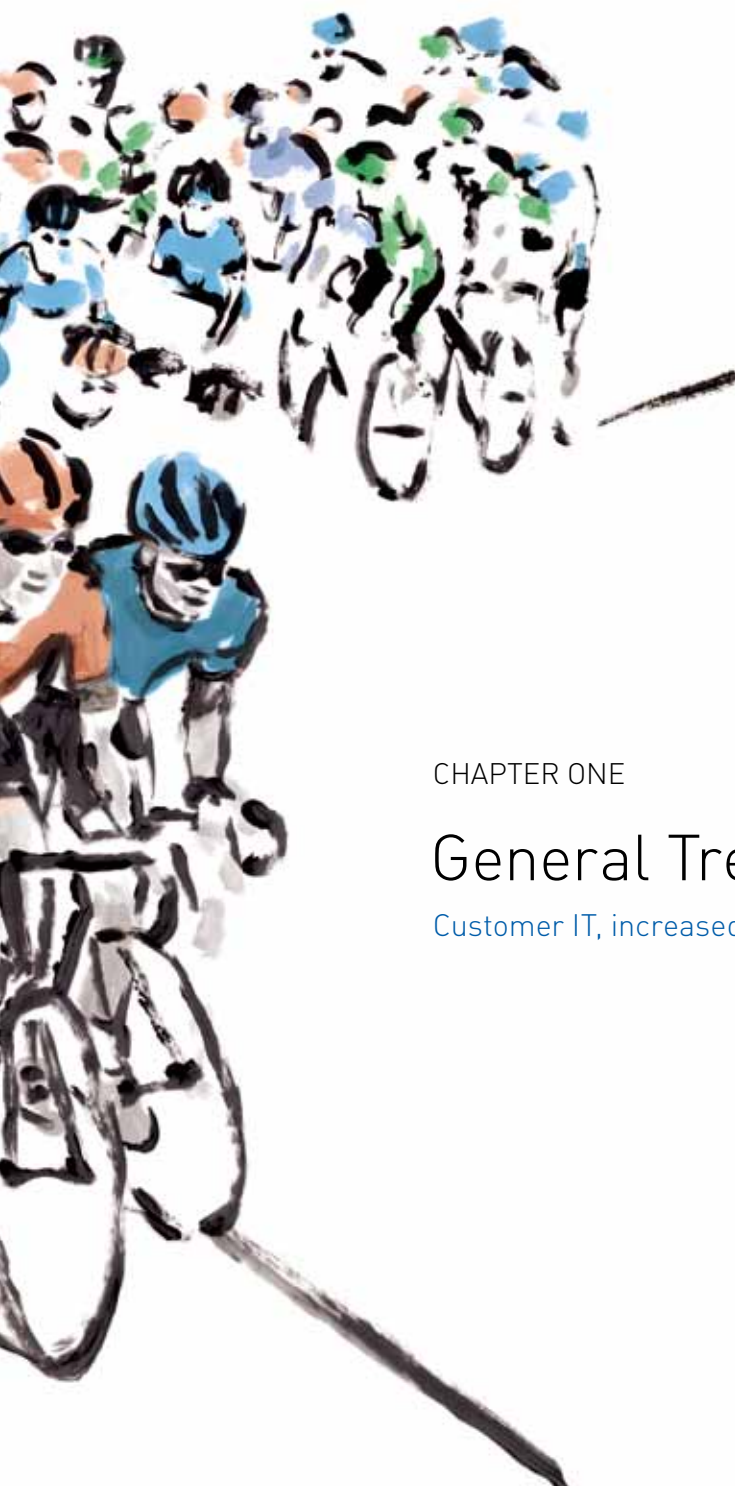
CHAPTER ONE General Trends
Page 07 Customer IT, increased outsourcing and competency shifts

CHAPTER TWO Alignment Model for Sourcing in Application Management
Page 11 Complementing sourcing with actions in the fields of application portfolio management and governance

CHAPTER THREE Sourcing Alignment Patterns
Page 21 Aligning sourcing with application portfolio management and governance in integrated strategies for application management

CHAPTER FOUR Implications and Recommendations
Page 31 Improving internal maturity and the use of advanced sourcing approaches for application management





CHAPTER ONE

General Trends

Customer IT, increased outsourcing and competency shifts



Fig. 1: IT is used to establish links with suppliers and customers and to provide competitive advantages.

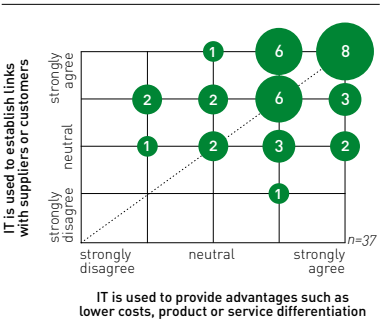
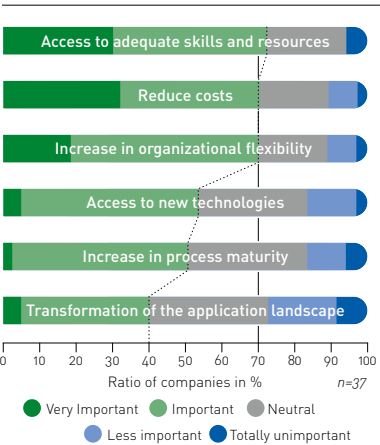


Fig. 2: Companies have various and different goals in sourcing.



Three trends dominate the design of application management: high significance of customer IT, further increases in outsourcing, and shifts in the competency profiles of IT departments.

Companies acknowledge the high significance of customer IT. 76% of the interviewed companies acknowledge the important role of IT in linking customers and suppliers to the company. This linkage correlates well with the use of IT to provide advantages such as lower costs, product or service differentiation (Fig. 1). A main reason: on top of running applications for the support of internal business processes, many companies include IT functionalities in their product offerings and use digital channels to establish long-term relationships with customers. We term this customer IT. Examples are manifold: companies in logistics and transport provide supply chain visibility, media companies are moving towards online media and banking & insurance companies are experimenting with new online business models. The requirements of customer IT regarding data and software integration as well as time-to-market often are significantly different from those of traditional applications (such as ERP or CRM applications).

Many companies look for ways to increase the productive capacity for designing and implementing innovations and to free up operational resources by applying sourcing: 70% try to achieve an increase in organizational flexibility through sourcing and see an opportunity to develop more applications. 56% look for ways to reduce the time-to-market in projects.

49% of our interviewees indicated a future increase in their overall outsourcing degree and only 11% consider a reduction. An outsourcing plan poses an average increase of an additional 27% in outsourcing volume. Most companies are aiming for an outsourcing ratio between 30% and 50%.

There are three prevalent goals in sourcing (Fig. 2). Firstly, many companies struggle with finding and attracting qualified IT employees and aim at gaining access to adequate skills and resources. Secondly, the majority also expect

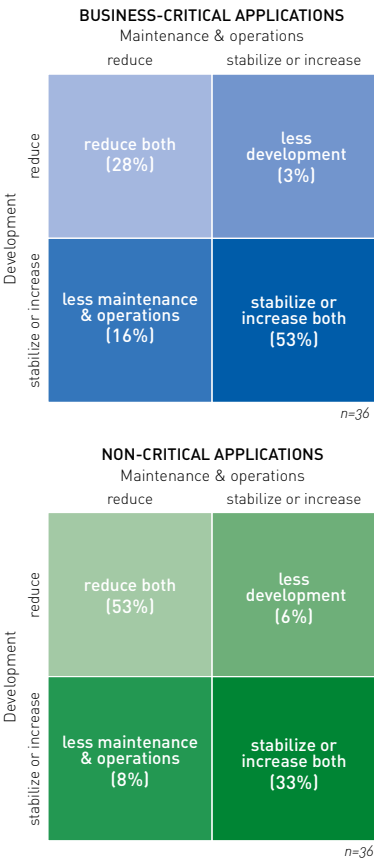
cost reductions and assume the production costs to be significantly lower at the provider`s side. Thirdly, companies are faced with excessive or fluctuating work-loads and try to increase their organizational flexibility.

IT departments refine their competency profiles. The majority of companies are altering the outsourcing degree and are forced to decide which skills and competencies to retain. Particularly in the field of maintenance and application operations, companies plan a reduction of internal value added of 18% for non-critical and 7% for business-critical applications in the upcoming 2-3 years. The targeted outsourcing volumes for development, maintenance and operations have an average of 49% for non-critical and 36% for business-critical applications.

We distinguish four options for shaping the future competency profile of IT-departments: a reduction versus a stabilization or an increase of the internal value added in the two areas development and maintenance & operations (Fig. 3). In the field of non-critical applications, 53% reduce internal competencies in both areas. For business-critical applications, 28% generally reduce the internal value added and another 16% focus reduction on maintenance & operations.

Interviews revealed that retaining a subset of existing skills and competencies without a systematical augmentation of competencies is not enough. In order to implement a successful vendor relationship, dedicated vendor management skills are required. Furthermore, many companies look for ways to increase capacities in the fields of IT-driven business innovation and strategic technologies.

Fig. 3: Companies refine their competency profiles with a clear focus on critical applications and business-oriented tasks.







CHAPTER TWO

Alignment Model for Sourcing in Application Management

Complementing sourcing with actions in the fields of application portfolio
management and governance



Application management describes all operational, managerial and strategic activities regarding the operation, development and maintenance of an application landscape and its supporting organization.

Application management goals are twofold:

- To provide all data-processing, -transmitting and -storing functionalities
- required today and anticipated in the future - through the operation, maintenance, development and sourcing of applications, in a timely manner at adequate cost and quality.
- Continuously enhance the organizational potential to react to the changing business demand for quality, efficiency and innovation.

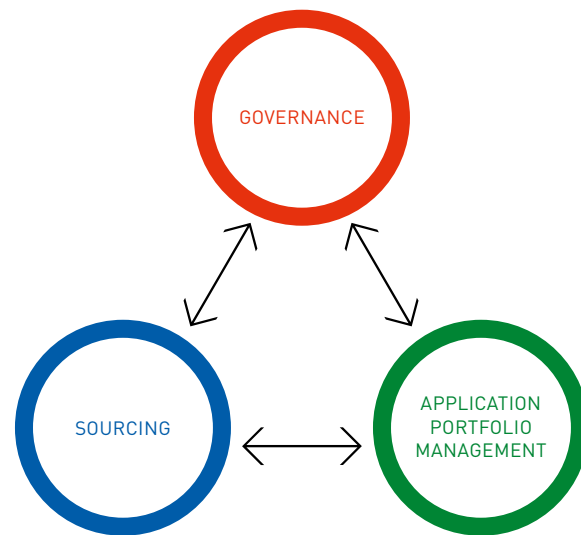


Fig. 4: The alignment model consists of the fields sourcing, application portfolio management and governance.



Companies address these two goals with various measures, which can be divided into three fields of action: sourcing, application portfolio management and governance. Each field of action serves a different purpose within application management.

SOURCING ensures the availability of resources required to operate, maintain and develop the application portfolio through the planning and steering of the internal and external personnel count as well as external services according to the business requirements.

APPLICATION PORTFOLIO MANAGEMENT ensures that the application landscape as a whole fulfills the business requirements, through the planning and steering of the development, modernization, integration, consolidation, standardization and retirement of applications or application clusters.

GOVERNANCE ensures that strategic competences (determined by business demand) and processes are established and maintained efficiently. Governance measures include process design and the adaption of the organizational structure.

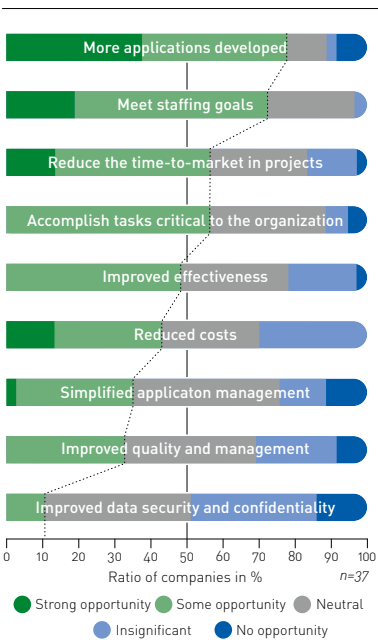
The alignment model for sourcing in application management visualizes these three fields of action (Fig. 4). In the following subsections, we outline the options available and opportunities realizable within each of the three fields of action.



Sourcing

This field of action attracts most attention, as companies lack skilled personnel, face permanent cost pressure and need to support new technologies.

Fig. 5: Based on prior experience, companies see main sourcing opportunities in getting more applications developed and meeting staffing goals.



Companies have described that sourcing has enhanced the development of more applications at a higher pace while meeting staffing goals (Fig. 5). We found evidence that the advantages achieved partially differ from the sourcing goals originally specified in the sourcing strategies. The most significant discrepancy is found between the goal of cost savings - motivation for 70% of all outsourcing strategies - and the ratio of companies actually achieving such benefits (44%). Cost savings were achieved mainly by medium and large organizations with application management budgets above 30 million Euros. Low sourcing volumes make it impossible to achieve cost benefits for smaller companies. These organizations have described their biggest opportunity in accessing skills that would not be available otherwise.

A major concern in outsourcing is the increased complexity and loss of quality in application management, particularly within large organizations. According to our respondents, these effects are caused by the lack of central control over the numerous sourcing activities. This has caused a lack of transparency and decreasing service quality. To counteract this phenomenon, companies have started to centralize the sourcing responsibility and to consolidate their sourcing contracts.

Sourcing approaches describe various shifts of responsibility for application management facets. While inhouse and extended workbench approaches maintain all application management responsibility internally, advanced sourcing approaches transfer defined sets of responsibilities to a service provider. We witnessed a strong shift towards advanced sourcing approaches as organizations refocus their core competencies (Fig.6). We have identified the following sourcing approaches:



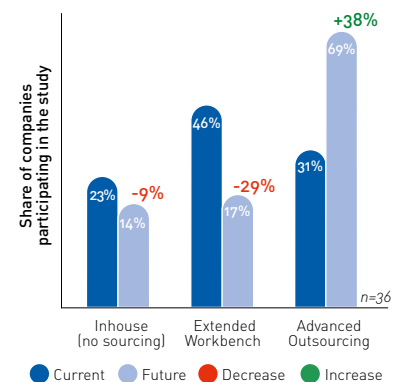
The inhouse approach The inhouse approach implies that all application management functions are carried out by internal staff. Full responsibility for organizational units, processes, capacity utilization and workload management is maintained by the internal IT department. The constant informal knowledge transfer and access avoids the loss of application know-how but it proves to be difficult to attract adequate personnel and to maintain organizational flexibility.

The extended workbench approach implies that external staff is embedded into the internal application management processes on site or from a remote location. The internal department maintains full responsibility for these processes. The flexible access to a skilled workforce tackles the lack of personnel but in return poses the threat of losing critical application know-how and causes increasing management overhead.

The functional approach, the first of the two advanced approaches, implies that an external provider takes charge of specific application management functions. A function is a class of application management processes such as implementation, testing, bug fixing or second level support. Relying on the professionalized synergetic processes of a provider causes a higher dependency but allows better service quality and cost-savings if smooth interfaces with low management overheads can be established.

The product approach, the second advanced approach, implies that all application management responsibilities for a certain application are transferred to a provider. Prominent examples are software-as-a-service solutions such as salesforce.com or Google services. Service providers specialize in operation and development to ensure the continuous improvement of their service but provide limited support to integrate their service into individual application landscapes.

Fig. 6: Companies are moving towards advanced sourcing models.





Application Portfolio Management

This field of action has constantly gained attention through the growing costs for legacy system support, need for application modernizations and required transparency for advanced sourcing approaches.

Today, one of the main goals is to reduce redundancies within the portfolio and to implement industry standards where available (Fig. 7).

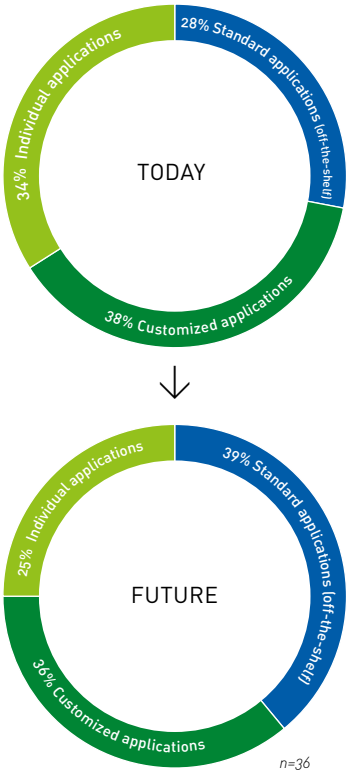
Companies have highlighted the importance of retiring redundant and unused applications to reduce the complexity of their application portfolio. To enable a transparent application portfolio and to identify redundancies a corporate application portfolio management function is necessary. Simplified portfolios, in turn, accelerate the development of new applications, which need to be connected to the available architecture.

Some interview partners acknowledged that standard software and platforms, in comparison to individual software, often support higher levels of modularity. Modularity is one of the key factors in achieving flexibility and speed in the adaptation of the application portfolio, as independent modules can be implemented, deployed and retired swiftly with low portfolio impact.

Furthermore, individually developed legacy systems are often built on technology that has exceeded its anticipated life span and is therefore no longer supported by software vendors. Hence, organizations need to implement their own application enhancements and struggle to find capable personnel. The seamless transfer of the functionalities and data of these outdated systems to standardized applications is still a critical challenge in application portfolio management.

Organizations have therefore begun investing in a central application portfolio management function to establish application retirement processes, allow a comprehensive application life-cycle management and long-term application portfolio planning (Fig. 8).

Fig. 7: Companies are driving the standardization of their application portfolios.



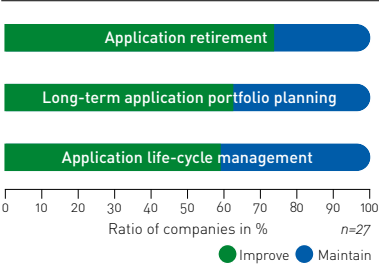


Application retirement is the essential part of an application consolidation project and the application life-cycle management. A major challenge described by companies is to finance retirement projects as their cost often exceeds the yearly operational budget and the monetary benefits are only achieved over long periods of time but not within single retirement projects. Organizations therefore couple retirement projects with the development or deployment of new applications.

Application life-cycle management is a holistic approach in managing the resources allocated to an application from its early experimental stage through the maturity stage to the retirement stage. Depending on the strategic importance and criticality of applications, companies manage applications (including budget, resources, security and usage policies) differently. Applying predefined management measures to applications with certain life-cycle-stage characteristics (e.g. demand throttling for retirement candidates) is the core of the life-cycle-approach. It involves the continuous evaluation of each application's life-cycle-stage according to a set of criteria and the appropriate adaption of resources and policies when the application is advancing in a life-cycle-stage.

Application portfolio planning is an approach to align all applications to support long-term business requirements. This is especially critical to organizations with transforming business models, as it is currently the case in the media industry. Entire application portfolio segments are gradually being retired and new strategic application clusters have been developed over the years. Such a transformation requires portfolio transparency, the communication of clearly defined business strategies and the portfolio managers' authority to enforce organizational change.

Fig. 8: The top priority in application portfolio management is to establish reliable retirement processes.





Governance

Governance has gained importance since organizations began to streamline their application management departments and to align application management competencies with the business strategy.

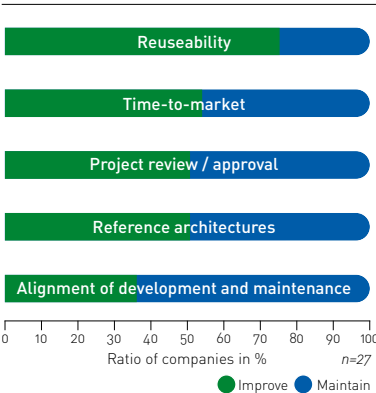
The primary goal of this field of action is to identify long-term business demand for core application management competencies and to ensure their availability and further adaption to new business requirements. The secondary goal is to optimize organizational structures and processes towards adequate efficiency and flexibility. Governance activities can influence every aspect of application management. They include organizational and process restructuring measures as well as the definition of corporate standards and policies.

Organizational measures include the (de-)centralization of teams and the division of labor amongst them. Many companies are currently evaluating the feasibility of transforming application-oriented teams into development- and maintenance-oriented workforce pools. The synergy effects of this particular organizational approach strongly depend on the critical mass of development and maintenance tasks and on the heterogeneity of the application portfolio.

Process (re-)design can range from the simple formalization of processes to a wide scale process harmonization to achieve synergies across distributed organizational units. Furthermore, policies and blueprints of any workflow, technological architecture or sourcing approach may provide a framework to achieve and maintain the demanded efficiency, flexibility or potential for innovation.

The majority of participating companies are planning to improve their application development processes (Fig. 9). Top priority is to establish a culture of developing reusable application modules. By using a building blocks approach, the time-to-market of new developments can be accelerated. This underlines the need for a simple and standardized portfolio and reference architectures that allow the reuse of application modules.

Fig. 9: Establishing reusable software modules is the top issue for improving the development process.





In order to keep up with the demand for customer IT and to meet the fluctuating up-scaling and decommissioning demands, organizations are required to introduce novel approaches in application development and maintenance.

Planning cycles within application management often are significantly longer than planning cycles of customer facing business units. Due to the faster pace at which business units develop their requirements for small-scale customer-oriented applications and prototypes, the traditional application management is often unable to deliver within the specified deadlines. Similarly, the demands for existing customer-facing applications change very quickly. Novel approaches involve the incremental integration and retirement of individual applications to and from the overall application landscape.





CHAPTER THREE

Sourcing Alignment Patterns

Aligning sourcing with application portfolio management and governance
in integrated strategies for application management



Application management strategies vary considerably across the different companies due to heterogeneous business requirements.

We identified three prevalent application management strategies:

Supporters focus on satisfying business demand. The design of application management processes is mainly implicit and the internal organization is designed to match its counterpart at the business process level. The application portfolio management is often not a central function but driven by business units. Management know-how is bound to distributed individuals. Sourcing is deployed to meet staffing goals by using extended workbench sourcing approaches. A formalization, standardization and consolidation do not provide significant benefits due to strong diversity in the business approaches of the company or missing scalability in the IT organization.

Optimizers not only focus on satisfying business demand, but also improve the overall efficiency of application management functions. They standardize applications, consolidate their portfolio and formalize processes. The application portfolio management is driven by cost reduction and takes the full life-cycle into account. Sourcing is focused on improving performance through the application of advanced sourcing approaches. IT has an enabling but no differentiating role or faces relatively stable business environments with increasing cost pressure.

Differentiators accomplish organizational flexibility to enable application innovation on top of running stable applications. A flexible process design allows the application of formalized and agile processes on a case-by-case basis. The application portfolio management includes a long-term portfolio planning considering future business needs for innovations and ensures modular and adaptable application landscapes. Sourcing is also used to gain access to strategic competencies and combines the benefits of extended workbench and advanced sourcing approaches. Differentiators face dynamic business environments and use IT as a source of competitive advantage and innovation.



The strategies differ in the intensity of coordination between the dimensions governance, portfolio management and sourcing (Fig. 10). Each strategy is appropriate for a specific set of determinants given by the market and the technological environment, which are further described below. Since no strategy is universally applicable, companies must evaluate which strategy matches their business requirements best. Large groups with heterogeneous business units may apply different strategies per unit. For further analyses, the interviewed companies are allocated to one strategy, if the majority of their core characteristics correspond to the prototype.

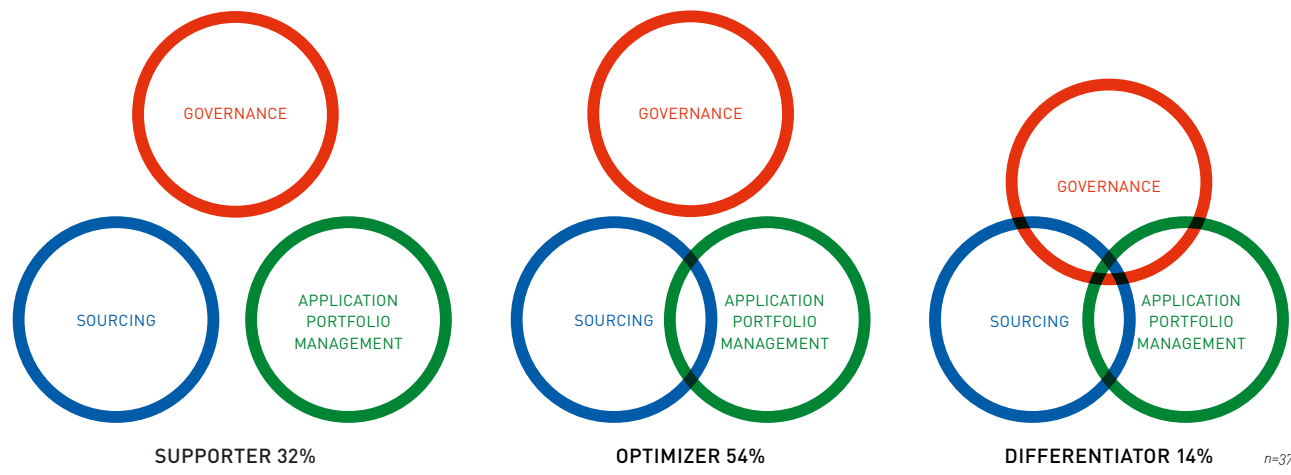


Fig. 10: Strategies for application management differ by the intensity of coordination between the dimensions governance, application portfolio management and sourcing.



| Supporter

Supporters focus on satisfying business demand by delivering the required IT services and skills. Supporters possess a high degree of internal value added in application management. Their application management organization is structured towards business processes. The teams overtake all application management functions of an application cluster and jointly carry out application development and operations tasks.

Application management processes are optimized decentrally and well-aligned with the supported business processes. Thus, each team utilizes procedures and tools, which best satisfy the specific needs of their counterparts on the business unit level. The effort for cross-team coordination is kept to a minimum.

This approach requires a direct communication with business process owners and application users on an individual basis. The communication across application management teams is event-driven and necessary whenever changes affect more than one application or application cluster.

Application portfolio management tasks are often executed by decentral responsables for an application or application cluster. Thus, knowledge is bound to distributed individuals. The application portfolio is mainly documented and planned decentrally in the units responsible for a specific application or application cluster. Nevertheless, overall portfolio transparency is gained at least for the core systems, which are critical for the business, and their interdependencies.

The application landscapes possess in many cases a high degree of individual software or multiple differing software products with relatively low usage ratios per application. We observed this pattern in small IT organizations as well as in companies with decentralized and diverse business approaches.

Sourcing is applied to access skilled personnel not available internally.

Supporters use the extended workbench approach to access pools of skilled personnel and to augment the internal workforce without having a long-term commitment. As the access to skilled personnel is the major goal of sourcing, further outsourcing opportunities, e.g. the realization of economies of scale, cost reduction as well as risks and benefit sharing, are not in scope of the outsourcing arrangement (Fig. 11).

Supporters evaluate vendors based on the competence and perceived performance of the provided staff. They face considerable outsourcing risks because application management know-how is to a significant part bound to the external staff.

Determinants for Supporters:

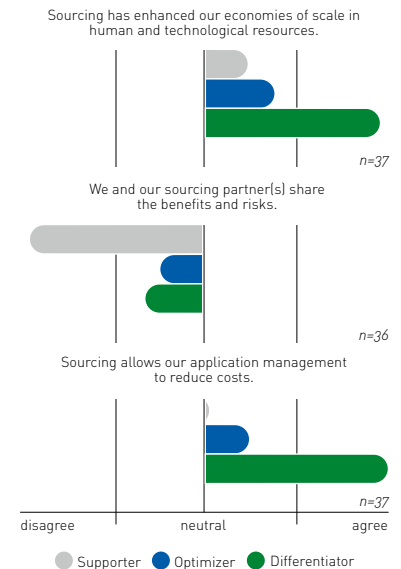
A separation and an organizational concentration of application management functions are only feasible if a critical mass of activities is carried out for the specific function. Especially small IT departments do not have the critical mass to accomplish such a division of labor.

The Supporter strategy is suitable when the effort required for individual communication is lower than the effort required to fully formalize and centralize the communication and documentation, e.g. through the usage of integrated repository tools (CMDB).

Decentralized business approaches can also lead to this strategy, especially if a high diversity of application functionalities is required and even similar business functions need specific application functionalities within one company.

Nevertheless, companies in this pattern should carefully evaluate whether a centralization, consolidation, standardization or even modernization of the application landscape could leverage significant optimization potentials at least for some business functions. In this case they might consider a strategy shift towards the Optimizer.

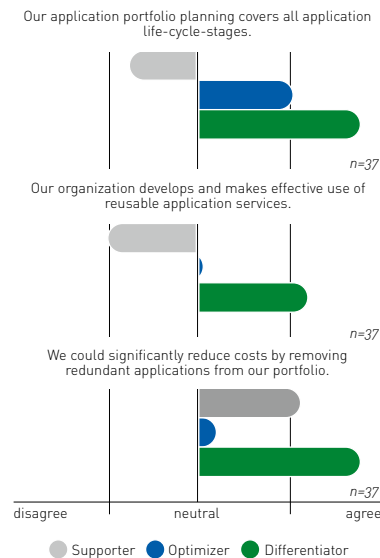
Fig. 11: Supporters predominantly apply the extended workbench approach in order to access skilled personnel and do not focus on further outsourcing opportunities such as economies of scale, shared risks and cost reductions.





| Optimizer

Fig. 12: Optimizers have an application-lifecycle- oriented portfolio planning and possess a consolidated portfolio.



Optimizers not only focus on satisfying business demand, but also on improving the efficiency in application management. Optimizers refine their core competencies in order to gain efficiency within the application management organization. They seek to achieve a high degree of labor division. The application development, maintenance and operations tasks are separated and allocated to skill pools to leverage economies of scale.

Working procedures, tools and process documentations for application management are standardized across the entire company. The Optimizers' governance implements central structures and distinguishes clearly defined functional roles and communication paths. Since process standardization fundamentally affects the communication with other business units, management commitment from the business side is compulsory.

Optimizers have full transparency and an integrated perspective on their application portfolio. A centralized and formalized application portfolio management is in place. The application portfolio is well-documented and updated regularly. Redundant applications are continuously consolidated, which leads to relatively high usage ratios per application. Where feasible, the application portfolio has a high degree of application standardization. The application portfolio planning is application-life-cycle-oriented and follows a stringent benefit and cost analysis (Fig. 12). Portfolio planning is aligned to the strategic initiatives on the business unit level (e.g. business process redesign, business model shifts).

Sourcing is focused on improving performance through the application of advanced sourcing approaches. Optimizers base their sourcing decisions on efficiency indicators. The internal separation of application management functions enables functional sourcing. The degree of outsourcing varies from outsourcing only single development functions (such as coding or testing) to extensive approaches where more than 80% of the application management functions are



transferred to one or multiple IT service providers. As functional sourcing allows high outsourcing degrees, well-defined interfaces to the providers, a comprehensive vendor management and a dedicated retained department - with business process know-how to act as the interface between provider and business - become mandatory.

The usage of standard software extends the possibilities to apply functional sourcing in application maintenance and operations. Many of the companies that we interviewed are sourcing development and maintenance as well as operations separately to reduce the dependency on a single sourcing provider.

Determinants for Optimizers:

IT has an enabling but no differentiating role. It faces stable business environments with increasing cost pressure.

The consolidation and standardization of application management processes leverage economies of scale and synergies. Labor division and skill pooling are possible because a critical workload within the application management activities is surpassed.

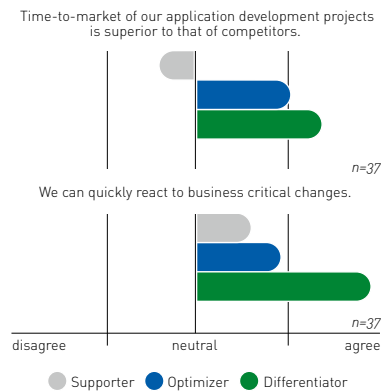
The active centralization of IT organizations driven or supported by the business provides the foundation for the Optimizer strategy. Typical initiatives of Optimizers address the enterprise-wide harmonization of systems.

In case of an increasing degree of business dynamics, Optimizers need to prepare the IT to take on an innovative and differentiating role and to consider a shift towards the Differentiator approach.



Differentiator

Fig. 13: Differentiators follow an agile process design to improve time-to-market and reaction time.



Differentiators accomplish organizational flexibility to enable application innovation on top of running stable applications. Differentiators refine their core competencies in two ways: In the area of commodity applications they tend to reduce their competencies towards less internal know-how. For strategic IT-driven business fields they even expand their competencies into technological areas to fully leverage the innovative potential and to react quickly to business and market changes. This leads to differing designs of the internal value added for well-established and for innovative application segments.

Differentiators seek to proactively manage IT-driven business innovation to catering for stable and established applications resulting in an “IT of two speeds”: A flexible process design equally enables formalized procedures for stable operations as well as agility for the development and timely commissioning of innovative applications. This allows the Differentiators to remain flexible and to react quickly to leverage competitive advantages through IT (Fig. 13).

Differentiators have a centralized and agile application portfolio management in place. The application portfolio management develops and maintains a sustainable portfolio plan. The application portfolio is centrally documented, includes the interdependencies between the applications and is updated regularly.

The application portfolio design is based on modularization in order to enable fast application adjustments, modifications and decommissioning (Fig. 14). Besides a consolidation and standardization of established applications, Differentiators focus on the modernization of the application landscape in order to achieve a high degree of modularization.



Sourcing is partially used to gain access to strategic competencies and exploits the benefits of both the extended workbench and the advanced sourcing approach. Differentiators use multiple vendor management approaches with a performance orientation for the established applications and seek for value added in the sourcing partnership for innovative applications.

Differentiators systematically exploit the advantages of extended workbench and advanced sourcing to achieve efficiency gains and added value from sourcing. An external value contribution can, for example, equally be accomplished through the access to strategic skills (extended workbench) or through purchasing state-of-the-art technology, platforms and software, without the necessity to build up this know-how internally.

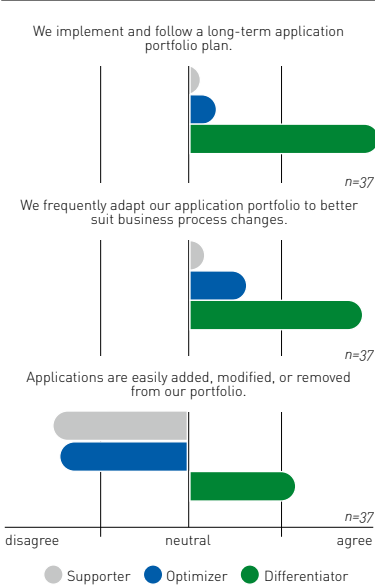
Determinants for Differentiators:

IT takes on a differentiating role for the company and actively shapes the competitive strategy in a dynamic business environment. Thus, the IT has not only a supporting role but also a strategic and business re-design function and enables competitive advantage. From an organizational perspective, the IT emancipates from the business units.

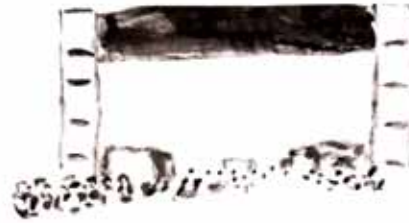
Differentiators actively promote the implementation and usage of customer IT. Thus, they empower the digital interaction with customers and extend physical products with value added functionalities.

Nevertheless, Differentiators should over time transfer innovative applications into a stable operation and leverage optimization potential through standardization and consolidation. In case of an increasing degree of industry maturity and stability, Differentiators should consider shifting their strategy towards the Optimizer approach.

Fig. 14: Differentiators have a long-term portfolio plan and a modular portfolio landscape.







CHAPTER FOUR

Implications and Recommendations

Improving internal maturity and the use of advanced sourcing approaches for application management



IT of two speeds: Customer IT requires dedicated management approaches, which differ from the management of traditional IT. IT for the digital customer interaction (customer IT), compared to the traditional IT, has fundamentally different requirements with respect to time-to-market, software and data integration as well as security. In parallel to managing established applications, companies apply the Differentiator strategy to employ customer-oriented processes for application development and operations, install additional internal organizations and develop new types of IT skills. Customer IT also requires different approaches in application portfolio management (such as a gradual integration of customer-facing applications) and new sourcing partnerships.

Application sourcing strategy: A concentration of core competencies and an increase of the sourcing degree require a company-wide and well communicated strategy. Current application sourcing approaches with a non-transparent number of vendors and a prevalence of the extended workbench method are often not efficient. Especially for the Optimizer and the Differentiator strategies, the realization of advanced sourcing approaches requires a dedicated sourcing strategy, which is composed of a governance model and a mechanism to select sourcing packages and vendors. The sourcing strategy furthermore must be aligned with a long-term skill development plan.

Sourcing success requires portfolio maturity: Companies with a high application portfolio maturity are more successful in application management outsourcing. Our research encountered a strong correlation between the success in outsourcing and portfolio maturity. In order to increase the portfolio maturity, application portfolio management must centrally monitor the value and costs per application over the complete application life-cycle, consider the full costs of portfolio complexity and proactively manage application retirement.



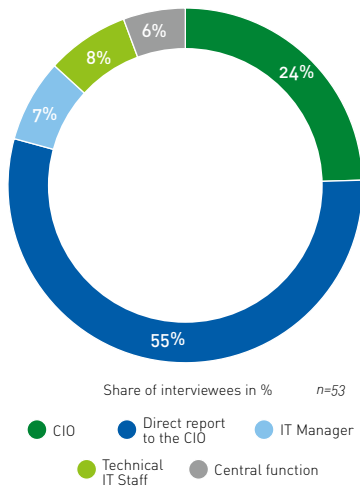
Outsourcing and internal maturity: A successful outsourcing of application management services critically depends on a simultaneous increase of the internal process maturity. An internal improvement must generally go along with outsourcing initiatives. It requires adequate focus, resources and investments in order to establish the required process maturity level and to develop skills for successful service and vendor management. Many years of consulting experience show that an improvement of internal maturity in application management prior to outsourcing is often an inefficient and long initiative which is not coordinated with the requirements of future providers. Thus, the majority of outsourcing initiatives undertake internal improvements and outsourcing concurrently and take higher risks.

Performance of application maintenance and operations: The use of normalized performance indicators enables the comparison of competitors and firms in other industries. The application of a broadly accepted cross-industry benchmark facilitates the identification of improvement potential and the targeted use of sourcing in application maintenance for companies applying any of the three strategies. Benchmarks must include hard factors such as application complexity and operational costs as well as soft factors such as the strategic value and the business criticality of an application.

Life-cycle-sourcing approach: The move towards advanced outsourcing approaches requires application portfolio based sourcing decisions. Instead of fully outsourcing specific application management functions in development, maintenance or operations, some companies successfully tailor the sourcing activities to their applications ("life-cycle-sourcing"): They base their decision to use advanced outsourcing on life-cycle characteristics of the application such as technology maturity, the rate of changes, or the strategic value. By outsourcing such "non-strategic" applications, they focus their internal resources on innovation, vendor-governance and strategic applications.

How we conducted the research

Fig. 15: Our respondents were mainly CIOs and their direct reports.



The research was conducted by a senior research team at the chair of Prof. Dr. Walter Brenner (Institute of Information Management, University of St.Gallen), in cooperation with Navisco AG - Sourcing Professionals. The research project was funded with the financial support of Hewlett-Packard.

We collected data from 37 German and Swiss companies in two iterations: First, to collect comparable data and gain structured insights, we asked all participating companies to fill in an upfront questionnaire. Second, we conducted semi-structured in-depth interviews with 53 representatives of these companies. We then created an interview protocol and asked the interviewees to validate it.

Our interviewees held different roles within their IT organization, but they were mainly CIOs and their direct subordinates (Fig. 15). The companies operate in the following industries: banking & insurance (9 companies), manufacturing (7 companies), information & communication (6 companies), transportation & logistics (5 companies), pharmaceuticals & chemicals (4 companies), retail (3 companies), utility (3 companies). The annual revenues ranged from approximately 0.1 to more than 100 billion EUR.

All results and diagrams are subject to approximations to achieve a 100% scaling. Invalid or incomplete replies were excluded from the analyses.

We would like to thank all of the participants for their support and for sharing information about their practices in application management!

Imprint

© 2012 Institute of Information Management
Number of copies 1,500

Produced by:
Institute of Information Management
Chair of Prof. Dr. Walter Brenner
University of St.Gallen (HSG)
Müller-Friedberg-Strasse 8
CH-9000 St. Gallen
Phone: +41 (0)71-224 24 09
Fax: +41 (0)71-224 32 96
www.iwi.unisg.ch

Navisco AG – Sourcing Professionals
Heilwigstrasse 33
D-20249 Hamburg
Phone: +49 (0)40 -25 31 32 80
Fax: +49 (0)40 -25 31 32 88
www.navisco.com

Responsible:
Prof. Dr. Falk Uebernickel (Assistant Professor, University of St.Gallen)
Dr. Jochen Wulf (University of St.Gallen)
Dr. Michael Heym (Navisco AG – Sourcing Professionals)

Design Studio:
Katharina Langer
Hamburg & Berlin
Phone: +49 (0)179-523 28 98
www.katharinalanger.de

This study was funded by Hewlett-Packard.

We would like to thank the following persons for their support:
Ulrich Jousten, Ursula Keller, Lea Prantl, Caroline Schweizer, Eleonore Taillens

**If you have any questions, feedback or helpful suggestions,
please contact Falk Uebernickel (falk.uebernickel@unisg.ch)
or Michael Heym (michael.heyman@navisco.com).**

