# IT Financial Management

Service Application Change Configuration Level Service Financial Catalog ISO 20000 Security Incident Release Problem Operations Knowledge

#### IT FINANCIAL MANAGEMENT: BEST PRACTICE

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# IT Financial Management

**Best Practice** 



## **Colophon**

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## **Foreword**

Financial Management is not the first function an IT organization will try to cover. Normally we see that topics like Change Management, Incident Management and Service Level Management are among the very first to be tackled in quality improvement projects. But sooner or later the organization will need to get in control of that very core attribute of the IT services: the cost! Managing the financial aspects of IT service management is so very essential to the organization, that it cannot escape to be subject to the management system.

There is a wealth of technical books on financial management out there, ranging from academic study books to 'finance for dummies'. Unfortunately, IT managers are not financial managers, and they normally are not deeply trained in 'the art of financial management'. The same goes for most financial managers: they know little of IT. Available information in frameworks like ITIL was also limited to a rather abstract level. Given this lack of existing guidance, a book on IT financial management, scoped at the needs of IT managers, would be of great practical value.

The same situation applies to many other IT service management topics: a lot of information is available in sources like COBIT, ITIL and MOF, but additional guidance for practitioners is in high demand. This was the reason for developing a series of books that complemented the available sources of best practices. The series is being published in the ITSM Library, the independent set of books that cover *global best practices*. Publications in the ITSM Library result from global projects, covering experts from all kinds of disciplines, and from many corners of the world. These publications are always very instructive, and offer practical guidance for practitioners. They all are titled 'Best Practices'.

The remarkable lack of practical guidance on IT financial management is the reason that this book is one of the very first titles to be developed in the Best Practices subseries of the ITSM Library. As this is part of a bigger project, a lot of attention is paid to the design of the Best Practices subseries, and to the structure of each book in this subseries. All topics covered are described from a clear architecture, in terms of People, Process and Technology, sharing the same philosophy on IT service management. Specifically, each book makes clear whether the topic described is a process or a function: there are important differences that need to be respected on implementation.

In this respect, IT financial management is a clear example of a function, using several other well-known IT service management processes.

We expect that this book will be a very useful practical guide that supports the reader in understanding more on financial management in IT service organizations, offering a good structure and lots of practical tips, templates and checklists, on a topic that will have to be tackled sooner or later...

Jan van Bon Managing Editor

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## Introduction

This book is intended to provide the reader with some general background and a little technical detail as regards the practice of IT financial management. It is assumed that the reader has an understanding of IT infrastructure and may well have read the relevant parts of the IT Infrastructure Library (ITIL). No matter which version of ITIL has been read, the material amounts to some fifty pages of general description of the activities involved in financial management for IT services. If the reader has read the financial management requirements identified in the ISO/IEC 20000 standard, they will appreciate that is a one page summary of the expected deliverables of the practice. This book extends the description of the practice to over 200 pages and goes into quite a bit more depth.

The target audience is anyone involved with IT financial management, whether as a practitioner or as a manager or working in related areas and seeking a better understanding of it. It should be recommended reading for those in any ITIL activity, be it strategic, tactical, or operational, as well as for customers (ITIL's term for end-user managers paying for the IT service). The book provides general descriptions of all the related activities and deliverables as well as many checklists going into some detail of tasks and data involved. Thus the book could be read from start to end but it is anticipated that for many readers a lot of value will lie in the individual checklists, the structures and graphics presented, and in the templates and appendices. It is entirely within the spirit of ITIL, and most authorities on the subject, that the reader chooses at will whether to adopt or adapt any part of this book. Take it or leave it. That was true of the first version of ITIL and is still true today.

The book is structured into ten chapters. The first chapter provides an introduction to IT financial management practices in the context of IT service management and chapter two expands on its background.

Chapter three reviews the benefits gained by adopting the practice of IT financial management.

Chapter four is one of the two longest chapters and outlines the activities, inputs, processing and outputs involved in IT financial management, and its relationships to other functions and processes.

Chapter five summarizes different perspectives of IT financial management.

Chapter six is the other very long chapter, discussing implementation issues.

Chapter seven outlines the management of the IT financial management practice and chapter eight describes the supporting tools.

Chapter nine presents the set of terms and definitions used throughout this book

Finally, chapter ten deals with maturity, and presents a series of checklists and templates that support the use of IT financial management, as well as a number of relevant frameworks.

Appendix A is essential to this book, as it provides the basic concepts for IT service management, and is the common philosophy for all books in the Best Practices series. It is important that anyone not fully aware of the differences between processes and functions reads this Appendix to avoid conceptual errors in the embedding of IT financial management in their organization. ITIL and IT service management are most often related to process-based approaches, and IT financial management can follow that approach. IT financial management in itself, however, clearly is a function (or 'practice'), an organizational capability, using people, processes and technology to accomplish its targets. In larger organizations it often is a department. This Appendix explains the approach to make that work.

Appendix B provides a list of useful sources for information on IT financial management.

At the end of this book you'll find an index to keywords and their location within the book.

## **Acknowledgements**

Following feedback from expert review, guidance on IT financial management has been high on the list for many professionals for a long time. The fact that existing publications offered limited information has led to many requests for more detailed and practical guidance. In the field, IT financial management is still one of the least-developed areas in IT service management.

So when we discussed this with Maxime Sottini, we were delighted to receive his offer to share his experience in this specific field, and extend the information on IT financial management with a practical guide. With his deep level of expertise, Maxime Sottini took the role of author in a team of expert editors of the ITSM Library. To ensure international knowledge and experience was reflected in the resulting guidance, a broad panel of experts was installed as a Review Team. This editorial team set the scope of the book by agreeing on an initial Table of Contents.

The project was then turned over to the author: he gathered the best practices on IT financial management, using his own experiences, existing literature and information from peers. The Review Team then added their personal experience and knowledge to the manuscript, ensuring that it was a balanced result, and reflected the knowledge of the entire editorial team. The result is this book: a thorough introduction to the field of IT financial management, with a lot of practical guidance.

We sincerely thank Maxime Sottini for his enthusiasm and persistence, and his willingness to listen to the reviewers and to seriously consider their issues. This has enabled us to develop a true *best practice* on IT financial management.

We also wish to thank our international Review Team that has contributed their experience and knowledge. They provided encouragement, criticism and useful new ideas, to ensure that the book reflects the very best practice.

A special thanks goes out to Kevin Holland who was a big help to us in the important preview phase of this book and the Best practice series as a whole.

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# 1 Context for IT financial management

## 1.1 Setting the scene

The importance of IT has dramatically grown in the past decades and is probably still growing. Many businesses are depending on IT to improve their efficiency and effectiveness, if not for surviving. As a consequence the IT budgets of most companies have increased substantially (Hitt, et al., 2002). In this scenario it has been proven (Kellar and Akel, 2003) that larger companies tend to invest more than smaller ones. This seems intuitive as, for example, in large organization the opportunity to improve efficiency by automating repetitive processes is higher and an important driver.

When it comes to understanding the link between IT investments and companies' performance, the situation becomes much less clear. By the end of 2000, research (Brynjolfsson, 1998) demonstrated that computerization did not lead to improved productivity. This result was known as the "productivity paradox". Possible explanations were given to justify this result but later studies (CSC, 2001; Brynjolfsson and Hitt, 1996; McKinsley and Company, 2002) have questioned the validity of the paradox. Analyzing the relationship between IT investments and companies' profitability did not lead to better results and, again, literature shows contradictory results. What seems evident is that, in all business sectors, some firms are more successful than others in transforming IT investments into value for the business (Kellar and Akel, 2003).

So, while the absolute value of IT investments is growing, the ability to profit from investments varies tremendously from firm to firm. IT financial management deals with the amount, the funding, the question how it is spent and the control of the money that organizations put in IT. Therefore, IT financial management is an important discipline for understanding and improving the capability to wisely spend this money and therefore to improve the profitability of the business.

The need to better plan, control and evaluate IT investments and spending is also boosted by globalization and growing competition. This is a very well-known topic and it brings, as a consequence, the need to quest and carefully control all investments and to put them into competition one against the other: only those that clearly contribute to achieving the goals of the organization should find adequate funding.

## 1.2 IT services and cost

In the perspective of IT services, IT financial management is certainly dealing with costs, which are often perceived as being related to quality of services (see Figure 1.1).

Without the introduction of innovative business models, products or services, there is a performance barrier which can't be crossed. This barrier establishes a relationship between costs and service quality (Fig. 1.2). IT organizations shall define how they want to position themselves,

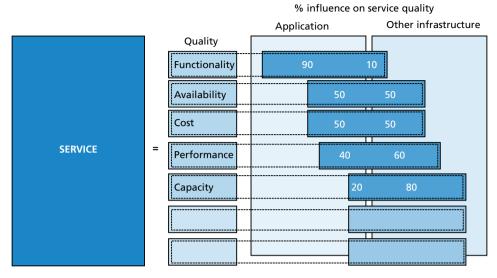
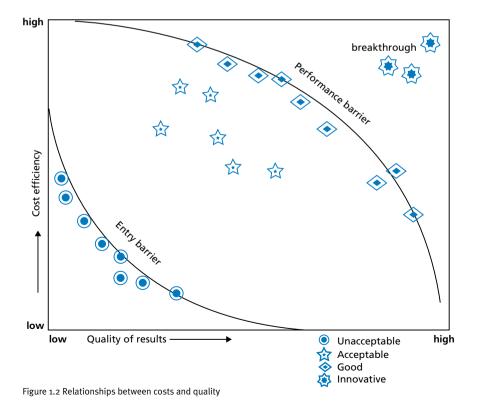


Figure 1.1 Cost is one of the core attributes of service quality

opting for low, average or high quality of services. They then have to control costs and minimize them as much as possible. This means trying to reach the performance barrier at the desired level of cost, until a breakthrough model or solution is found. IT financial management is a mandatory element in order to achieve this result.



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This is one of the key reasons for the growing importance of IT financial management, which will be defined in more detail in the next chapter.

## 1.3 The nature of IT financial management

We can interpret IT financial management as the practice, or the function, managing the evaluation, planning, funding, controlling and charging of IT investments and costs. Financial management has always been a topic on the agenda of CIOs and it is born with IT. Historically, the IT department has often grown internally from what was previously known as "accounting", and nowadays as "the financial department. In many cases the IT department is still positioned as an element of the financial department. This is mainly due to the fact that the accounting and human resources systems (another typical organizational unit where IT department can be found) were among the first areas of automation. For this reason, in the 60s and early 70s, the IT people and resources were mainly allocated to the financial department. Later, as IT capabilities were improving and accounting systems were getting more mature, the focus moved towards automation of other parts of the business organization, but the IT department often stayed with the financial department.

Financial management has evolved too. Initially, the term was used for the function providing management accounting services to the whole organization. This was often known as the administration, or the administration and control department. Later, in the 80s, the role of this function has evolved, together with the concept of "value creation". Globalization and competition have leveraged the importance of strategic decisions and of planning and control. The administration department turned into an administration, finance and control department with new responsibilities such as the monitoring of the value of the organization, the evaluation of investment decisions from an economic/financial point of view, and the timely funding of resources to support the company's initiatives and projects. In parallel, the new function has been generally placed under direct responsibility of the CEO and often renamed into the administration, control and financial department or, more simply, the financial department (finance).

Like all other departments, IT too has been influenced by financial management, adopting the scope, rules and procedures defined by the financial department. Activities like investment management, budgeting, accounting and charging, which we will discuss in detail in this book, have grown in the financial management department and have been forced upon the other departments of the organizations. The scope, the structure, and the level of granularity of the output of the financial management activities were initially designed for the overall management of the organization. For example, the company budget was structured for each company function, including IT.

Additional rules, originating from the IT department, are often used to further detail the IT budget. This is generally done to better support the planning and controlling objectives of the IT department without overloading the central financial system with detailed information. For example, the IT budget is often structured per technology platform or function, such as windows vs. UNIX, or operations vs. application management. These additional details are then managed outside of the financial system.

So, on one side, the IT department needs to respect and apply the company rules regarding financial matters, and on the other side the day-by-day management of IT investments and costs may lead to specific views, rules and activities to be managed. Therefore, outside of the traditional domain of control of the financial management department, several financial topics are often managed by IT, with a consistent but different and specific approach requiring a mix of IT and financial skills.

One example area is project management, as many projects are dealing with IT. General rules are normally provided by the IT financial department, e.g. how to classify and manage project costs, or how to determine Return On Investment. Nevertheless the level of granularity required by the common financial policies for projects may be insufficient to provide full control of project costs. For example, there can be the need for a more granular view of cost types, or the need to manage resource activities by means of timesheets. Therefore the IT department may decide to manage financial topics with a different approach, but respecting and interfacing with the overall rules and financial practices of the company.

Another great example is the evolution of IT service management (ITSM). One of the main goals of the modern IT department is to supply IT services, aligned to the needs of the business, with agreed characteristics, levels of quality and at optimal costs. This "service orientation" is a tremendous shift in the IT perspective, driving a change of the point of view of many traditional activities. The benefits of this shift are relevant for financial management, as it has made the efforts of the IT department and the cost of IT services much more transparent and comprehensible for the business.

Although this may all seem to be straightforward and simple, it is often not the case. Defining a budget per IT service is absolutely different from and more difficult than budgeting for organizational functions. Furthermore, the financial department and the overall financial management activities may not be ready to address this important change. This is often becoming painfully clear in ISO/IEC 20000 initiatives recommending the definition of a budget and the accounting of costs per service. The traditional financial department and the designed company financial management policies, procedures and systems, may not be ready to deal with this shift. For example, financial management systems may not be ready to address the services as a required dimension in budgeting and accounting activities.

"IT financial management" with the service perspective in mind is core to this book, and will be perceived throughout the book as "financial management for IT services". This perspective is quite different from the traditional one, but it is becoming more and more important, with the growing acceptance of ITSM best practices, such as ITIL, or standards like ISO/IEC 20000.

Until now we have discussed the reason for the importance of IT financial management and we have seen that IT financial management may be entirely but more often partially part of financial management, although related, in terms of discipline as well as in terms of organization. All this applies to a context where IT is a department of a company that has some other kind of business as its core activity. When the company is an IT service provider in the open market, the difference between financial management and IT financial management fades away. This book will regularly address both perspectives.

## 1.4 IT financial management and the evolution of ITIL

ITIL is long established. The first version was created in the UK during 1986-1992 by a government agency, called CCTA – which later became part of the Office of Government Commerce (OGC). Version one consisted of over forty booklets, based to some extent on previous documented IBM Technical Labs ISMA manuals and other IT related sources. In that first ITIL edition, cost management aspects of IT financial management were addressed in the book "Cost Management for ICT Services", published in 1990.

The second version of ITIL emerged in 2000-2006. It reduced the number of main books to seven. Two of those were most read and provided the major material for ITIL certification: 'Service Delivery' and 'Service Support'. In ITIL version two, ITSM is largely defined as eleven practices and a function, with a chapter of 40-50 pages of generic description for each. In this second edition, IT financial management was addressed as one of the core practices of the 'Service Delivery book'.

ITIL version three has an emphasis on the service lifecycle. There are five books, Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement. In essence, version three covers the whole suite of version two, including the previously neglected books. Each of these five books covers approximately three hundred pages (with some 100,000 - 150,000 words in each). In this third ITIL version, IT financial management is a topic of the 'Service Strategy' book, but the way it is addressed is quite complex and in some cases contradictory. On one side, ITIL V3 slightly modifies the nature of IT financial management compared to previous edition, now being "the function and processes responsible for managing an IT service provider's budgeting, accounting and charging requirements". In ITIL Service Strategy, IT financial management is seen as a strategic tool, enabling operational visibility, insight and superior decision making and positioned as part of a service economics paragraph. That paragraph also covers other items like Return On Investment (which is a technique, generally considered to be part of IT financial management), service portfolio management (a strategic practice supported by IT financial management), service portfolio management methods (describing a practice and tool to manage the service portfolio) and demand management (another important practice supported by IT financial management). Compared to version two, ITIL version three better explores and explains the reasons and mechanisms why IT financial management is relevant and supports the business. But version three lacks practical guidance and a clear description of processes and responsibilities.

The ITIL documentation is aimed at being a general recommendation as to Good Practice. So there is a need to consider such matters and that is usually achieved by reference to domain experts. These in turn attend conferences and read papers to keep up-to-date. This is achieved largely thanks to the work of professional organizations such as, in the domain of financial management, the Institute of Management Accountants (IMA) or the American Institute of Certified Public Accountants (AICPA) for the US. Similar associations are present in all the countries and they generally have a long tradition and history, although they are not specifically dedicated to IT topics. More recently, associations with specific interest for IT financial management have been founded, such as the IT Financial Management Association (ITFMA).

ITIL version three has increased the number of ITSM practices from ten to as much as twenty-six, although the exact figure is under debate. In ITIL version three the ten ITIL practices of version two now have additional practices to cater for areas such as business relationship management, event management, and knowledge management, but also more detailed practices like service validation & testing, service portfolio management, access management and service reporting. Version two had one related function, the service desk. Version three presents several additional related functions, e.g. application management, technical management, and IT operations management.

This distinction between process, sub-processes, (groups of) activities and functions, as presented in ITIL version three, appears to be not entirely consistent within the ITIL definitions and acronyms. Applying ITIL's own definition of process to the sections that are labeled 'process' in version three also reveals that most of these sections are not described in terms of the process definition at all, and this is particularly true for IT financial management. So the word <u>practice</u> would be much more in line with ITIL's recognition as a set of Good or Best Practices.

In this book we'll show how IT financial management can be perceived in an organizational context, and how it relates to process and function dimensions. For practical reasons we'll use the term IT financial management practice to indicate all activities involved with IT financial management.

## 1.5 Parameters influencing IT financial management

ITIL talks of People, Process and Products (i.e. services, technology, tools) as the key interrelated entities concerned with the establishment of an effective ITSM practice regime. Complementary books and ISO/IEC 20000 tend to expand this to the four P's speaking of People, Process, Products and Partners (i.e. suppliers, manufacturers, vendors). This book extends the alliteration by adding Price. This arises because another characteristic of a description like ITIL is that it describes a perfect environment with the solution being applied across the board to all services and all configuration items thus ensuring total cover. In the real world such an approach requires too many staff and it costs too much. In the light of the money available, the team available and the likely benefits, a budget is established within which the practice has to live. So effort has to be focused and inevitably a categorization of services is introduced to identify those that are 'mission critical', 'key', 'production' and 'other' (or something alike). Then, for the mission critical services, the entire solution is applied in full, with less rigorous interpretation of all the related activities applied as the priority of the service decreases.

Playfully, the alliteration of the five P's above (People, Process, Products, Partners and Price) can be even further extended. The main attributes of the people and partner entities include politics, policies and protocols. The issues that affect process include projects, practice, plans and procedures. Products can include platforms and proprietary tools. The main resultant from price concerns is the allocation of priorities. See figure 1.3 below.

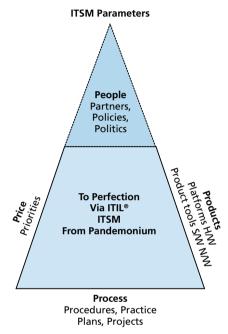


Figure 1.3 ITSM parameters

#### ITSM parameters include:

- **People** are the entity least inclined to conform to predefined process definitions
- **Process** is a repeatable set of prescribed activities using resources to transform inputs to outputs, i.e. 'what is to be done'
- **Product** is the clearest on the pricing issue, but perhaps not on the cost-benefit
- **Partners** involve relationships between people and so the complexity is exponentially increased with the numbers involved
- **Price** is the largest factor on pragmatic decisions
- **Policy** is the overall intention and direction of a service provider formally expressed by senior management
- Procedures are the specified way to carry out a process, underpinning the processes, i.e.
   'how to do it'

All of these parameters influence IT financial management practices.

## 1.6 IT financial management maturity

When speaking of IT financial management, the overall mission of the IT organization is a preliminary aspect to be considered before evaluating maturity. A traditional IT organization has, as we will see later in detail, a very different approach and practices for IT financial management compared with those of an IT service provider playing in the open market. The maturity model can be applied to any of the more general scenarios described later (IT financial management for internal IT departments, IT financial management for internal IT providers, IT financial management for market IT providers), but it is important to understand that evolution should not only deal with the improvement of 'maturity' levels but also with the identification of the best suited scenario for IT financial management and the transition to it, if different from the initial one.

An example will probably better clarify the concept. An IT internal service provider has reached high maturity, level 4, in the initial scenario where it is managing costs per internal customer but not differentiating them per specific service nor charging. A management decision is taken to separate the function from the core business and to create a specific company continuing to provide services to the internal customers of the original organization. In order to improve performance and optimize costs, the new IT company shall be able to offer well identified IT services at agreed prices. The transition from the initial scenario to the new one will drive relevant changes in organization, processes, tools, needed culture. After the decision is taken, the maturity level referred to the new target model will suddenly fall down to some intermediate level (probably between 1 and 2) but will quickly raise to level 3. Efforts and time will probably drive the organization back to level 4 or more.

## 1.7 ITSM drivers

ITIL and ISO/IEC 20000 are currently the dominant default descriptions for ITSM. Other drivers come in to play when considering the practices to be adopted within enterprises. Quality initiatives are encapsulated by Total Quality Management (TQM) and ISO/IEC 9000. Audit requirements driven by SOX and Basel II and Cobit contribute to the need for defined IT processes. Process improvement lies at the heart of Six Sigma and Continuous Improvement. Business Process Re-engineering has paved the way for process definitions and Balanced Score Cards and the Capability Maturity Model (CMM) to refine process control.

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# 2 What is IT financial management?

#### 2.1 Definition

To understand what IT financial management is, we must start with an understanding of financial management. This is a familiar term in business. It usually refers to the management of the financial activities of a company, such as raising funds through issue of securities listed on the stock exchange or obtaining bank loans and using the funds to finance business activities. In brief, financial management is about raising capital for business operations and the carefully considered use of that capital.

The term is also used to refer to the responsibilities and activities of an organization's internal finance department, which include:

- Management control Predicting the financial performance of the business and providing
  a basis for decision-making and for raising finance; accounting for and analyzing costs, thus
  providing the basis for allocation of costs to products, services or activities, preparing and
  controlling financial budgets, analyzing performance in terms of variance analysis (costvolume-profit analysis), financial aspects of risk analysis, cost-benefit analysis and costeffectiveness analysis.
- Administration Recording, clarifying and interpreting financial transactions and events
  (this involves maintaining records, book-keeping, preparing balance sheets and profit and
  loss accounts, preparing value added statements, managing cash, handling depreciation and
  accounting for inflation).
- **Finance** Controlling and optimizing the use of financial resources (raising funds, planning for loan requirements/funds surplus, relationships with credit institutes, management of payments to suppliers and collection of revenue from customers, support for investment decisions, obligations for tax payments to government).

Financial management involves the whole organization, including the IT department and its contribution to the activities outlined above. IT financial management can be interpreted as the financial management responsibilities and activities relating to IT. More precisely, we should use the term IS (Information Services) management instead of IT (Information Technology) management. IS management covers the requirements for the people, technologies and processes to support business activities with adequate information processing systems. It is a broader term than IT management, which refers to technologies only. In practice, however, the terms IT management and IS management are often used with the same meaning.

IT financial management is also well known in the context of ITIL. Version 2 of the framework provides the following definition of IT financial management:

IT financial management: 'a common abbreviation of financial management for IT services'

where financial management for IT services is defined as:

**Financial management for IT services**: 'the process responsible for managing an IT service provider's budgeting, accounting and charging requirements'

In ITIL V3, this definition has been confirmed.

ISO/IEC 20000, the first international standard for the quality of IT services, also deals with IT financial management, in particular with two activities, budgeting and accounting for IT services (charging is recognized as an activity but not included as it is not mandatory in the standard). In the context of this standard, financial management has the same meaning as in ITIL – that is, the financial management practices corresponding to ITIL financial management for IT services. We can conclude that financial management for IT services is a term related to IT service management (ITSM) and, in particular, to ITIL, which takes the perspective of a service provider (whether internal or external) and covers a subset (budgeting, accounting and charging) of the IT financial management activities.

This book will analyze IT financial management in its broad context, which encompasses all the definitions described above.

## 2.2 Goals and objectives

Depending on the meaning given to IT financial management, the set of goals and objectives will differ. If we interpret IT financial management primarily as part of financial management, the goals and objectives are related sub-goals and sub-objectives of the organization's financial department. One of the main goals of the financial department is to develop and maintain certain modules of the company's information system, particularly the following sub-systems:

- general accounting
- · management accounting
- · financial accounting

These sub-systems provide timely and accurate information to achieve the main goal of the financial department: supporting top management's direction, control and decision making procedures. The financial department must be able to understand the financial impact and the benefits of economically relevant decisions, support the strategic planning activities with data and information, monitor and report on the value and performance of the company, identify and take action on the most appropriate funding options for investments, and assure compliance with administrative and financial regulations.

The IT department contributes to the fulfilment of these goals and objectives by taking part in the financial management activities.

However, when considering financial management from an IT services perspective, the scope is restricted. In ITIL version 2 and ISO/IEC 20000, the final goal is to budget and account for the costs of service provision (charging is out of scope in ISO/IEC 20000). Some specific objectives are clearly distinguishable.

#### The objectives for **budgeting** are to:

- predict the money required to run IT services
- ensure that actual spend can be compared with predicted spend
- reduce the risk of overspending or underspending
- ensure that revenues are available to cover predicted spend (where charging is in place)

#### The objectives for **accounting** are to:

- account for the money spent
- · account for revenues
- · calculate the cost of providing IT services
- perform cost-benefit or return-on-investment analyses
- identify the cost of changes

#### Finally, the objectives for **charging** are to:

- recover the costs of the IT services
- operate the IT organization as a business unit (making profit) if required
- influence user and customer behavior

Another specific goal of financial management for IT services in ITIL (version 2) is to assist management decisions on IT investment by providing detailed business cases for changes to IT services.

ITIL version 3 describes the IT organization as similar to a market-facing company, further developing the concept of the business unit that was introduced in version 2. The IT organization should develop IT services that can create value for its customers. From this perspective, financial management aims to support the IT organization with data and analysis in order to define strategies, in terms of a service portfolio, and control their results. Service valuation becomes an important objective: the determination of the total cost of delivering an IT service and the total value to the business that uses the service.

The goals and objectives described above can be shown as an evolutionary path for IT financial management (Figure 2.1).

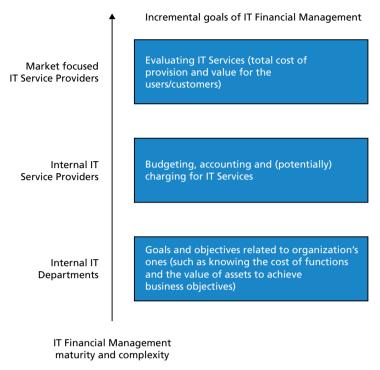


Figure 2.1 Incremental goals and maturity of IT financial management

## 2.3 IT financial management maturity levels

With the evolutionary path described in Figure 2.1 in mind, it is important to understand each of the evolutionary steps. These steps, or scenarios, will be used frequently in this book to enable a better understanding of the relevance and the context of the main topics discussed here. We will examine each of the scenarios in turn.

### 2.3.1 Scenario 1: IT financial management for internal IT departments

As we have seen earlier, there are different degrees of maturity in providing IT services. The first level is an IT department acting as an internal function and providing applications and infrastructures to the business. At this level of maturity, the IT department has probably not yet defined a Service Catalog and it communicates with the business in terms of applications, management of IT systems and evolutionary IT projects. The budget is generally structured around the IT organization (functions) and the activities/projects that it manages. The IT department is involved in the financial department's activities with objectives, roles and schedules defined by financial or corporate management. The core financial topics are the evaluation of new investments in IT, the determination of actual costs versus budget and financial plans. Charging mechanisms of the department's cost are rarely defined. Where a charging mechanism is in place, it is unlikely to be driven by the consumption of services.

Typical activities where IT is involved at this level are:

- **Financial planning** The activity of predicting and controlling the spending of money to achieve business objectives in the medium/long term (for example a three-year horizon). This includes IT investments and operating costs, so the IT department participates by preparing its forecast based on the business (or industrial) development plan; the level of detail of data is medium to low.
- Budgeting The activity of predicting and controlling the spending of money throughout
  the budgetary period (usually one year) to achieve business objectives; it also includes IT
  investments and operating costs. The IT department participates by preparing its forecast; the
  level of detail of data is medium to high. The budget forecast fits with the financial plan (see
  previous activity) for the corresponding budgetary year. One or more reviews of the budget
  may be necessary or planned during the budgetary period to check and identify the need for
  significant changes.
- Accounting The activity enabling the organization to account for the amount of money and the way it is spent; this is done by means of ledgers, usually defined by the financial department. The IT department normally contributes but does not lead the activity; for example, recording of financial documents (such as passive invoices) is usually performed by the financial department's personnel, although some activities can be executed by the IT department (for example issuing requests for purchase). Accounting is strictly related to passive cycle activities (see glossary), such as procurement and order management.
- Managing deviations Analyzing balance data and comparing with the budget may identify significant deviations that need to be dealt with. Analysis may be performed by the central financial department or simply coordinated by it and executed by the IT department.
- Evaluating investments The activity of estimating all costs associated with an investment and comparing them with the revenues and/or savings in order to determine its economic benefit; the rules for evaluation are established by the financial department but the actual evaluation is typically executed by the IT department.

The financial department usually performs other financial activities, such as preparing balance sheets and profit and loss accounts, handling depreciation, evaluating assets, allocating and apportioning money to other departments as well as charging departments or companies for the use of IT. At this level, we generally speak of IT costs and their allocation and/or apportioning to business units and/or other departments of the organization, primarily based on the general financial structure of the business.

#### 2.3.2 Scenario 2: IT financial management for internal IT service providers

At this level of maturity the IT department identified and adopted the service management approach and philosophy, even if it still provides services to a captive market, typically for a specific company or a group of related companies. This is generally because the IT department needs to provide better support to the business or simply to improve the quality of IT and optimize the costs by adopting well proven best practices and approaches. It has identified the services supplied and determined how to handle financial management information at this level, with the aim of charging for IT services, whether actually or notionally. For example, the IT department can detail the budget and can also account for each service; it may also have the ability to identify impacts on the service budget based on changes. The IT department's approach may be compatible with the practice and the general accounting structure of the company, but

this is unlikely. More often, it is necessary to merge the traditional financial view (based on the analysis of the costs of departments, functions, products or other relevant core business information) with the new service oriented view.

The service oriented approach and/or processes of IT financial management may not fit the general IT financial approach and/or processes. There could be several reasons for this. IT services are not elements of core business; the central financial department might not have a mature ITSM culture; or there might be constraints within the central supporting financial management system. At this level of maturity, it is often necessary to build a dedicated IT financial management system, which will support specific needs as the IT department starts to think of itself as a company within the company, selling its products/services and managing them from a financial point of view too. This way of thinking may also lead to specialized skills and to an organizational function within IT, responsible for managing financial matters. The need to work with the centrally managed financial processes will continue, as described in the earlier level of maturity, and financial data has to be reconciled between the central system and processes and those of the IT department.

This is probably the most difficult level of maturity to manage because different financial cultures, needs and objectives will coexist in the same company. Many of the financial activities have the same title as those of the previous level but their content and approach is significantly different:

- **Financial planning** This activity is the same as the previous level. Service orientation may influence how financial information is collected, but the structure of the financial plan will probably continue to follow the corporate approach and rules.
- **Budgeting** There will usually be two activities. One will be similar to that of the previous level, with the aim of feeding data into the organization's global budget. A second activity may be present, with the objective to budget for the specific costs of the IT services; this will interface closely with the first activity. Budgeting by service may be significantly more complex than budgeting by function. This activity will also be performed autonomously, with restricted scope, each time a new IT service is designed and implemented or significantly changed. The traditional budget by function, needed for the organization's overview, may be derived from the IT services budget. In a mature environment, the financial department has very flexible and sophisticated supporting systems. It would be able to support the specifics of the IT department; a new combined procedure might be set in place.
- **Accounting** this activity is very similar to the one of the previous level of maturity. Here the main issue is to record data only once, being able to feed both sets of financial views and details by function and by service.
- Forecasting a specific objective of IT service management is to check for deviations between the budget and the current costs of IT services. This can be done in two ways. The first is to have a budget disaggregated for each accounting period (for example monthly) and to compare the corresponding balance; the second is to forecast periodically for the entire costs and revenues of the IT services for the whole budgeted period and to compare them with the corresponding total budget. The forecasting activity supports this second approach and can be run periodically (e.g. each month or each quarter). Significant deviations are communicated to the budget review, which is a distinct activity. Forecasting activities may be found among the organization's financial management practices but periodic budgeting checks and reviews

are a more frequent practice. IT service management practices and standards (e.g. ISO/IEC 20000) have explicit requirements to forecast for the cost of providing IT services.

- Managing deviations Deviations from budget may be identified from the forecasting activity
  or from the budgeting activity of new or changed specific IT services; these deviations will need
  to be managed. There may be a review of the budget or authorization of extra expenditure,
  keeping the initial budget unchanged. Significant deviations for specific IT services do not
  necessarily lead to relevant deviations from the overall IT budget and, therefore, from the
  organization's overall budget.
- Charging A mature IT service oriented organization has good control of IT service costs and consumption. This is the prelude to charging IT services, which is useful in influencing users' behavior. But in a captive market, typical at this level, there can still be the need for transferring IT costs in line with corporate policies and rules (e.g. the turnover of the business units). In an international context, the principles and motivation for charging may be derived from laws and regulations dealing with the transfer of profits among organizations and, ultimately, taxation. Charging is strongly influenced by corporate strategies.
- **Evaluating investments** This activity is the same as in Scenario 1. Methods and rules to evaluate IT investments are usually defined by the central financial department and also used by the IT department.

#### 2.3.3 Scenario 3: IT financial management for market IT service providers

This is the context of an IT service provider competing in the market. Provision of IT services is the core business of the business unit or the stand-alone organization. Some initial customers may be found among companies belonging to the same group or stockholders (shareholders) but the target mission is, sooner or later, to compete in the market. In this context, there should be no difference between financial management and IT financial management. This is not entirely true as an internal IT department will probably still exist in the IT service provider; this internal department will probably act as seen in earlier levels of maturity (for example as in Scenario 1). However, with the term IT financial management we will not refer to the possible financial management of the IT internal function but to the financial management of the whole service provider. With this meaning in mind we can start to examine the activities at this level of maturity:

- **Financial planning** The activity of predicting and controlling the spending of money to achieve the business objectives in the medium/long term (for example a three-year horizon); the level of detail of data is medium to low. The activity involves the whole organization; it is owned by top management and run with the support of the (IT) financial department.
- **Budgeting** The activity of predicting and controlling the spending of money to achieve the business objectives for the budgetary period (usually one year). The budget forecast must fit the financial plan (see previous activity) for the corresponding budgetary year. One or more reviews of the budget may be performed during the budgetary period to check and identify the need for significant changes. The budget is normally defined at product/service level, as supplied to final customers. The activity involves the whole organization and it is normally the responsibility of the (IT) financial department.
- **Accounting** The activity that enables the organization to account for the way money is spent; this is done by means of ledgers. The (IT) financial department leads the activity and plays an important role in related activities (e.g. recording documents such as passive invoices).

- Forecasting Organizations in the open market often manage budget by period (e.g. monthly). This is driven by the need for a more precise management of financial matters to ensure that the required resources are available to run the business. Deviations may be identified by simply comparing budget with actual spend; a forecast activity may not be necessary, especially if reviews of budget are planned.
- Managing deviations Control of actual spend against budget or budgeting for new or changed specific IT services may cause deviations from plans. These identified deviations have to be managed. There may be a review of the initial budget or authorization of extra expenditure, keeping the budget unchanged.
- **Charging** An IT service provider playing in the market has to define tariffs and to charge for the consumption of services. Many different charging models can be applied. This is a critical activity where the main roles are usually played by the marketing and sales functions, together with the (IT) financial department.
- **Evaluating investments** Methods and rules to evaluate IT investments are normally defined by the (IT) financial department and used by others.

The scenarios described above will be referred to throughout this book. Specific topics can be inherent to one or more of these scenarios; we will also refer to the scenarios to explain the possible differences or implementations.

## 2.4 Scope

We have learned from the section above that the meaning and scope of IT financial management greatly depends on context. In Scenario 1, IT financial management for internal IT departments, the scope is part of the wider financial management, in terms of activities, but also of items to deal with (e.g. only costs related to IT). In Scenario 2, IT financial management for internal IT service providers, the scope may be wider compared to the previous scenario. The IT department may be autonomous and decide to build a specific set of functions and a more detailed view (for example, by IT service) of financially relevant data. Finally, in Scenario 3, IT financial management for market IT service provider, the scope of IT financial management is interpreted as equivalent to financial management.

In this book, we will frequently focus on Scenarios 2 and 3, for example for activities. In Scenario 1 IT is generally viewed as one of the company's many internal departments, and its specific needs may be ignored by top management. Organization, activities, etc. may be very different from company to company and far from a common IT service management best practice.

Our attention will be dedicated to those aspects of financial management that are specific to IT and their relationships with the company's cross-departmental activities. For example, we will not focus on the financial planning activity crossing the entire organization; but we will explore its interfaces with IT specific practices; or we will examine IT specific activities within it.

Figure 2.2 graphically represents the activities and the scenarios in this book. Other perspectives are not ignored here but better guidance is found for them in other publications.

Activities  Vin scope	Internal IT departments	Internal IT service providers	IT market service providers
Financial Planning			✓
Budgeting (and reviews)		✓	✓
Accounting		✓	✓
Forecasting		✓	✓
Managing deviations		✓	✓
Charging		✓	✓
Evaluating investments		✓	✓

Figure 2.2 Scope of the book

## 2.5 Specific elements of IT financial management

There are different specifics of IT financial management when compared to other service management practices, such as incident management or capacity management.

First, financial management is a common discipline applied to other departments in the organization; it is characterized by a shared culture, vocabulary and often by common activities and supporting tools. It inherits constraints and/or interfaces, which are clearly identified when addressing activities or structural changes. For example, there is the definition of which costs should be managed as capital expenses and which are operational expenses. This is normally part of the organization's general accounting policies and approach, in compliance with external regulations, such as General Accepted Accounting Procedures (GAAP), which are followed by all departments. Another example relates to the timing of budgeting, often dictated by the organization's timetable with input/output relationships among the activities of the different functions or departments (e.g. business initiatives, such as the building of a new plant, which would need to be known before defining the budget for IT services).

Another important specific is that IT financial management practices, as we will see later, are closely interfaced and related to other practices, especially those belonging to the passive cycle (activities starting from the identification of a need for buying something and concluding with the payment for the goods/services purchased). A decision about the detail of the accounting level may influence the complexity in other areas of the organization, such as the purchasing department or administration. For instance, if we decide to manage costs by service, orders to suppliers would probably be split accordingly, which might lead to a significant increment of the number of items to be recorded in orders and invoices. This decision could finally lead to higher costs for the purchasing activities. In this case, there has to be a careful evaluation of the benefits

and the decision shared with all involved parties, as others (typically the purchasing department and/or the corporate financial department) may be strongly affected by it.

Because of these inter-relationships with other practices, another specific is also related to the tool supporting the IT financial management practices. With other IT service management practices the supporting tools are quite independent from other departments in the organization, although very much integrated in the service management domain. In the case of IT financial management, supporting tools are often those managing the overall organization's financial practices or, if independent, they are closely integrated with them. Whether to adopt and adapt the existing tools or to interface new specific tools is a key decision to be taken.

# 3 Perspectives and benefits of IT financial management

## 3.1 Perspectives and benefits of IT financial management

IT financial management generates benefits according to the scenarios described in the previous chapter. The different perspectives typical of each scenario are the key to understanding them and to understanding the points of view of the different roles involved in IT service management practices: customers, users, the financial department and IT staff. Before starting the analysis of perspectives and points of view, it is useful to explain the difference between 'customer' and 'user'. Customers of IT services are the decision makers, who are responsible for the acquisition of services and paying for them. Users are those actually receiving and using IT services. In some cases users and customers may correspond but this is not always the case.

#### 3.1.1 Scenario 1, internal IT departments

In Scenario 1, IT financial management is part of corporate financial management. IT is one of the many departments providing services to the business unit(s). In some cases, the importance of this support may be extremely relevant but sometimes IT is not perceived as adding value to the business and it is often considered simply as a cost center necessary to run the business. In this scenario customers (e.g. a business unit) cannot choose and think of IT to be an unavoidable cost, based on general criteria such as the number of users, number of workstations, bandwidth usage, etc. and not always linked to the use and/or quality of IT services. IT financial management is generally not designed to help with understanding of the contribution (value added) of IT to the business. In many cases, at least in small to medium organizations, it is not designed at all, in the sense that it is entirely part of corporate financial management and therefore targeted to corporate aims.

The benefits of (IT) financial management in this context are described and ranked in Figure 3.1 according to the probability of experiencing them. This probability depends on the processes implemented and on the culture and maturity achieved by the organization. At this level of maturity, the most common positive effect experienced is financial compliance, which is the ability to assess whether actual raising of funds and spending comply with the budget mandate, which in turn complies with the overall corporate plans.

Financial compliance is ensured by the management of budgeting and accounting activities and by the fact that these activities are governed by the financial management department. Another relevant benefit experienced is the ability to demonstrate how money is spent: knowledge of costs. This is derived from the accounting management activity.

Besides these two common benefits, organizations may also be able to evaluate investments correctly and therefore optimize them. This depends mainly on the maturity of the organization, as there is not always adequate culture and good practices in place to systematically calculate the advantages of projects (see also section 6.5.15 for further information on how returns can be

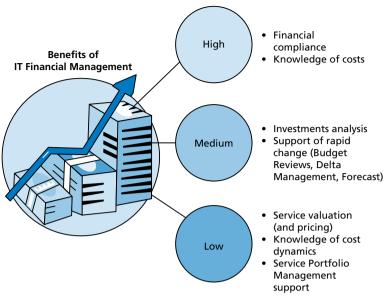


Figure 3.1 Benefits of IT financial management for Scenario 1, ranked according to the probability of experiencing them

calculated). This benefit arises when an investment evaluation activity is well defined, interfaced with project management and working properly.

Another set of activities may support flexibility in the face of change and reduce the risks related to business change. These activities are budget review, forecasting and management of deltas (deviations) between forecasts and budgets. In Scenario 1, budget review is commonly in place while it is less usual to find forecasting activities. Management of deltas is probably an existing activity but it might not be optimally triggered because of several reasons: the periodic forecast activity is not run or is run with insufficient frequency, reliability of budget articulation by period is insufficient or there is no articulation at all for comparisons with actual values.

In Scenario 1, IT financial management for internal IT departments, the benefit of IT financial management that is most often experienced is the ability to determine and assess compliance of spending according to budget and to demonstrate how money is spent. Some organizations may also experience improved decision making, deriving from financial evaluation of investments and changes.

## 3.1.2 Scenario 2, internal IT service providers

In Scenario 2, IT financial management for internal IT service providers, we assume that IT has changed its approach: it will no longer consider itself as a cost center and it will no longer be viewed as a cost center by the rest of the organization but as a 'service center' where money spent clearly returns value to the customers' business. To obtain and maintain this reputation, the core focus of the IT organization shifts and concentrates on value creation. The support of IT financial management is needed to evaluate the creation of value and to compare it with the cost of creating it. This is usually done by means of IT services, the core object of all these evaluations. In medium-sized organizations and, especially, in large organizations the effort and

requirement to support this perspective will lead to IT financial management as an independent function, probably still strongly interfaced to corporate financial management or perhaps still a subset of the corporate function.

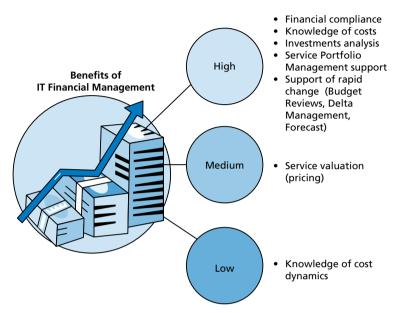


Figure 3.2 Benefits of IT financial management for Scenario 2, ranked according to the probability of experiencing them

Figure 3.2 illustrates the increasingly experienced relevance and benefits of IT financial management in this scenario. It is not only about the range of activities covered, which is a wider scope than in Scenario 1, but also the structure and detail of information. IT financial management starts to manage the costs and (probably) revenues of IT services, ideally by individual service, instead of those of IT globally or by department. The traditional benefits of IT financial management remain: financial compliance and knowledge of costs.

The challenge of providing value to customers by means of services emphasizes the need for support and, therefore, the benefits of IT financial management. Investment analysis becomes fundamental to support decisions, for example whether new or changed services will provide value to customers. Service portfolio management is supported too, to make it easier to identify and concentrate efforts on services that provide greater value to customers. Finally, supplementing controlled flexibility with forecasts and delta management activities contributes to the assurance that value is constantly maintained in situations of environmental and business changes.

In this scenario, another relevant benefit may derive from service valuation, if charging is applied and prices are calculated on the basis of value provided by the service. This is intuitive but not all the organizations in Scenario 2 are charging for services; very few of them use value as the basis for charging, because it is difficult to determine.

In Scenario 2, IT financial management for internal IT service providers, the focus of IT shifts to the value of services for customers. Benefits deriving from IT financial management increase proportionally to its contribution to value creation, control and charging. Traditional benefits still remain: assurance of compliance and knowledge of costs.

### 3.1.3 Scenario 3, market IT service providers

In Scenario 3, IT financial management for market IT service providers, IT financial management merges the role of financial management in non IT organizations with its role as in Scenario 2. Its core business is IT, so financial management manages all aspects of Scenario 2 and other activities, such as fund raising, taxation, etc. In this scenario, it becomes more difficult to classify the relevance of benefits of IT financial management as done before, because of its pervasive and central role. All the following are relevant benefits, as described in Figure 3.3:

- financial compliance
- knowledge of costs
- investment analysis
- support of service portfolio management
- support of rapid change (budget reviews, delta management, forecast)
- service valuation (and pricing)

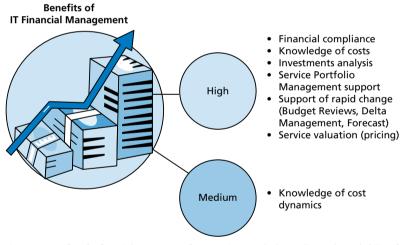


Figure 3.3 Benefits of IT financial management for Scenario 3= ranked according to the probability of experiencing them

Compared with Scenario 2, determination of the value and price of the IT services supplied becomes increasingly important, together with developing extensive knowledge and control of costs. This means better understanding of cost dynamics – for example, what happens, from a financial point of view, if the number of servers or users increases? IT financial management, besides the traditional benefits related to compliance and investment analysis, contributes greatly to strategy definition for the provision of services and to some operational tasks typical of marketing and/or pre-sales, such as price definition. This enables better business decisions and optimal decision making for services, which ultimately contributes to the organization's competitiveness and survival.

In this scenario, financial management also deals with activities not detailed in this book, such as management of capital structure, distribution of profits to shareholders, tactical financing (such as how to fund required resources), taxation and management of the relationship with banks. These activities bring additional relevant benefits.

#### 3.1.4 Stakeholders' perspectives and benefits

In this section we discuss the points of view of some important stakeholders of IT financial management and the benefits for them. The identified stakeholders are: customers, users, IT staff and management. The difference between customers and users has already been described. It is now useful to understand what we mean by management: we will refer to the top management of the organization which includes some representation from the IT department (primarily the Chief Information Officer – CIO).

#### Customers

Customers are always well identified in Scenario 2 and 3; but in Scenario 1 they may not be clearly targeted. In Scenario 1, IT financial management might not be perceived yet as an independent function and set of activities but as part of overall corporate financial management, so we do not discuss this scenario further here. Instead, we will concentrate on those where IT financial management is perceived by the customers. In Scenario 2 and 3, IT financial management will be mainly seen as the function (and the set of activities) responsible for charging for IT services. To be effective, formal agreements should be managed by service level management; new requests, as well as budget, should be managed by demand management activities, which should interface with IT financial management. The direct benefit, for the customer, is to establish a clear interface to gather and discuss information about charges. The indirect benefit is that charges are determined on the basis of deeper knowledge of costs and cost dynamics; thus there is better knowledge to isolate the costs relating to a specific customer and to charge only for those costs. An obvious additional advantage is that charges may be made transparent: more comprehensible and easier to understand. This is likely to improve relationships between customers and IT over time. However, all this is not necessarily true for Scenario 3, where market dynamics and providers' strategies will determine actual charges and relationships with service providers also depend on the competition.

#### Users

Users are influenced by IT financial management, especially by means of charging. The price will influence the consumption of IT services. For example, if a department is charged more when using applications within specific working hours, it will probably make an effort to avoid the higher charges by keeping within the agreed level of consumption. The main benefit of IT financial management, from the users' perspective, is having a function (and practices) that provides information on consumption and the costs of using IT services. However, attention to costs can lead to inappropriate behavior, for example sharing of accounts, which must be monitored and detected as soon as possible because of the risk of associated problems such as security issues.

### IT department and staff

The IT department is greatly dependent on financial management; the benefits for its staff are all those identified in section 3.1.1, 3.1.2 and 3.1.3, depending on the specific scenario. IT financial

management ensures that costs are budgeted and controlled to comply with corporate objectives and targets, as well as those of the IT department. IT financial management also provides vital information on the most advantageous investments and helps to optimize costs continuously. Knowledge about costs is also fundamental to correct pricing and any decision about changed or new services. IT departments should experience the full range of benefits deriving from IT financial management, depending on the scenario relevant to their circumstances.

#### Management

In Scenario 3 there is no difference between IT and the business and the whole set of benefits described in section 3.1.3 should be experienced by management. The role of IT financial management is vital because the survival of the organization depends on it. Correct financial planning, budgeting and pricing will contribute to the key decisions of management, which will affect the fortunes of the organization.

In Scenario 2 and, especially, Scenario 1 a key benefit of IT financial management for management is its contribution to compliance and alignment with corporate objectives. As for all other departments or business units, IT financial management will ensure that IT investments and other IT costs are defined and controlled in line with corporate objectives and targets and that financial policies are actually followed.

Another important benefit may be experienced by management, especially in Scenario 2. If the costs of IT services are defined on the basis of a relevant quota of their direct components, this should lead to improved transparency and better relationships with customers. Because of transparency, the real cost of services is visible and better understood. This transparency facilitates benchmarking with other market IT service providers, leading to optimized sourcing and/or charging decisions for specific IT services too. Transparency and evidence of an increasing component of direct costs in IT services (e.g. hardware, software, labor costs) helps to reduce disputes with customers. However, there is a negative side-effect of transparency: if the IT organization's performance is poor, the business might look for more convenient alternatives (e.g. outsourcing services) if free to do so.

Independent of the scenarios, support of greater flexibility is an important benefit for management. IT financial management can provide quick answers about IT matters and frequent questions related to business decisions, such as: how much will IT services cost if we are going to open a new office or plant? What are the IT costs to be considered if we add a specific number of new users deriving from an acquisition?

## 3.2 Costs of IT financial management

There will be initial and ongoing costs associated with any implementation and execution of activities. For IT financial management, the initial costs to be considered are:

- · staff and consultancy to design and implement organizational and process changes
- staff and consultancy to design and implement automation, including interfaces with external processes, functions, and related supporting tools
- procurement of infrastructure (e.g. hardware, middleware, bandwidth) and of supporting tools (applications for IT financial management)

- recruitment and training of resources to run the target activities
- · accommodation, utilities and travel expenses to manage the change
- project management
- costs of defining the baseline (e.g. assessing the initial situation), which may be run as a project itself with all related costs (e.g. internal effort, external consultancy, etc.)

#### Ongoing costs are:

- staff to execute activities (internal or external)
- materials, consumables
- services (external, such as consultancy, and internal)
- maintenance fees for infrastructure and supporting tools
- costs of maintaining knowledge and skills (training)
- · costs of continual improvement

Section 3.2.1 details the costs listed above.

#### 3.2.1 Initial set-up costs

By initial set-up costs, we mean all those related to the set-up of IT financial management in one of the target scenarios described. Few organizations will be starting from scratch and some of the activities will already exist. However, management will often consider that the current level of support of IT financial management is not sufficient and decide to run a new project to improve the situation. The objectives of the project will include one or more of the following: implementing new practices, significantly changing existing practices, improving the level of automation. We will describe how to implement IT financial management in detail in Chapter 6. Here we will concentrate only on possible costs associated with the project.

Design, implementation and set-up of the target organization and practices will require internal commitment and staff; very often, external consultancy will also be required. Internal staff will be involved in running day-to-day activities; their available time may be not sufficient, if the target situation is considerably different from the starting point. In addition, external support is often a key enabler in breaking down barriers in strongly entrenched environments, where a long history of operating practices exists; external resources are seen as independent and are listened to more often. External resources may also be valuable when making the transition from one of the previously described scenarios to another. Internal knowledge and perspective may be not adequate and the support of experienced external resources is recommended to avoid errors and shorten implementation. External support is also useful to set the baseline, one of the important steps of continual service improvement, which is recommended before starting activities. This is often done by means of assessment techniques and benchmarks; the help of external experts, used with these approaches, may greatly facilitate the task.

An often underestimated cost of the design phase is related to the retrieval and preparation of data to test and set up changed or new cost models (see section 6.5.8 for further details about cost models) and cost apportioning models (see section 6.5.10 for further details about cost apportioning models). Testing, usually performed before final automation, is strongly recommended to verify the validity and the results of target models before their adoption. Retrieving information and performing apportioning (in order to test) without adequate supporting tools (automation) is a

time intensive task. The cost of the task depends on the level of detail of models, which also drives the cost of related activities. For example, if we need more data because the aim is to analyze costs of services per activity, such as incident or change management, this will lead to increased detail of information to be gathered and managed during the test period and later on.

External support will probably be significant in the case of a new tool to be introduced to automate IT financial management practices too. Competencies and resources will be needed in order to prepare analysis, customize or implement the tool, install and setup the new solution. This is not the only cost associated with automation, as new infrastructure (such as servers) and license fees of software may be required. Another cost element to be included is the cost of interfacing critical processes and related supporting tools, such as asset management and all the monitoring systems used to gather information needed to calculate costs and/or apportion them. The cost of automation is usually significant as only small organizations can support effective IT financial management efficiently without tools. Fortunately, some important tools for automation such as the accounting systems (further discussed in section 6.5.5), are often already present and operating.

As we will see (Chapter 5), new practices will probably require changes to existing roles or new roles to be introduced; changes in the organization (e.g. new functions or departments) have to be expected too. This may require skill inventories to search for matching profiles; when good matches with internal resources cannot be found, there will be a need for recruitment. Nearly always, costs for training are also expected.

Where the change is large enough to justify using a project-based approach, additional categories of costs will need to be considered – for example, the use of offices and utilities for the project teams, travel expenses for presentations, coordination meetings and communications. Coordinating and managing the project is another element of cost to be considered. In many cases, project management will be mandatory and specific roles will have to be set up (typically project manager, project management office) which, again, will require internal staff and/or recruitment of external resources and/or acquisition of external services.

Initial set-up costs should be calculated to identify all the resources needed until all the targeted changes are implemented and signed off by the IT financial management practice owner.

#### 3.2.2 Ongoing costs

Ongoing costs are those related to the day-to-day execution of IT financial management practices, to support other departments or external functions (e.g. accounting, controlling, legal department, government authorities) and to perform small changes for continual improvements. Major changes and their associated costs should be managed as described for initial set-up costs – that is, by means of specific projects.

The most obvious ongoing cost is related to the internal or external staff needed to run processes. While some relevant roles, discussed in Chapter 5, are usually internal and full-time or allocated for a considerable amount of time so that related costs are easy to identify (e.g. IT financial manager), many others spend just a small proportion of their time to run IT financial management practices and it may be difficult to determine their associated costs. The cost of

external staff, in this phase, is often associated with professionals or consulting organizations with expertise on financial matters to provide information about compliance issues and the evolution of regulatory aspects.

The cost of running IT financial management practices is influenced by the level of detail of data to be managed and the level of automation. This has been highlighted in section 3.2.1 earlier. For example, if detailed information is required on how the time of IT service management staff is spent, the introduction and management of meticulous time management (based on timesheets) will lead to greater effort. Another example is the passive cycle (see glossary), including orders and invoices registration. A higher level of detail and direct allocation of costs to IT services will require a higher number of records to be managed. For example, if a large contract with a supplier for server management exists, orders and invoices could be detailed at different levels: customer, service, service/activity. Managing information by service would lead to higher effort (e.g. internal requests for purchase, orders, and invoices recorded with details by service) if compared to managing information traditionally (e.g. by function).

A higher level of detail is not necessarily a positive thing. It becomes useful only if this leads to valuable information and reporting that is requested and used to control or make decisions. Otherwise, it just add costs; an optimal balance needs to be found.

The costs of materials and consumables are directly related to the relevance of paper support in the organization and the number of reports and analyses produced. This can range from a small amount, in paperless contexts, to substantial costs, in large organizations with a traditional paper oriented approach.

Supporting tools, infrastructure (e.g. servers) and facilities need to be maintained and updated to remain effective. This is frequent, especially for solutions supporting IT financial management, and it does not only imply maintenance fees for dedicated hardware and software. Competencies and staff are needed to update the configuration of tools or even to customize them to support required changes (e.g. new functionalities, reporting, adaptation to regulatory constraints, interfaces, etc.). This maintenance service might be supplied by the IT department, by external staff or both, according to available competencies. It is wise to carefully budget for these costs too.

Changes in turnover, changes of business context and regulatory constraints (such as rules to manage depreciation or accruals or rules to design reporting, such as profit and loss statements) mean that there is a constant need for updating and adjusting the knowledge of resources involved in the practices. There will need to be a budget for training costs.

Finally, as we have already anticipated and we will explain further in Chapter 7, there is a continual need for improving practices and this applies to IT financial management too. The IT department should adopt and perform one of the numerous available approaches for improvement, such as the Deming Cycle (Plan-Do-Check-Act) and should be prepared to fund the costs associated to set up and run it (again staff, external services, tools, etc.). These costs should be budgeted as this effort is often not compatible with day-to-day routine and because, usually, specific tools or implementations are needed, for example to monitor performances of

the practices. In the Plan-Do-Check-Act approach there is an ongoing component of costs (to support monitoring and analysis) and also an ad hoc component, depending on the actions to be implemented to improve practices. Each action identified will typically have the same cost components previously described in section 3.2.1 (initial setup costs) and should be managed through a change management process, assessing and managing the impact and relationships with all the other service management processes.

## 3.3 More quantifiable benefits or costs?

We have discussed, in section 3.1, the high potential of benefits driven by IT financial management and the associated costs for its implementation and execution (section 3.2). Some questions arise: are the benefits quantifiable and can the costs be justified? Is it possible to evaluate trade-offs before starting implementation and, if so, how?

First, running IT financial management practices is not always an option. To ensure the minimal required level of control of costs and revenues in line with corporate financial policies, many organizations will implement IT financial management. In particular, budgeting and accounting activities are often mandatory: annual budget, budget reviews, periodic and annual closures (these activities will be described in detail in Chapter 4). For organizations charging customers for IT services other practices will be mandatory too: in particular, customer charging and, in some cases, pricing.

Costs associated with the execution of the activities listed above, at a basic level (sufficient to comply with corporate financial policies), will need to be budgeted and managed. There may be no need for cost justification as management requires it to be done. The questions arise for other practices and when a higher level of sophistication is required. There will be a point at which the cost cannot be justified: a level of sophistication where the cost of improving (e.g. the level of detail of costs managed) is too high compared to the potential incremental benefits deriving from the proposed improvements.

Chapter 7 deals with Key Performance Indicators (KPIs) for IT financial management practices. Improvement of performance, in terms of both efficiency and effectiveness of the practices, is often the underlying rationale to justify investments in IT financial management. Section 7.3 describes KPIs to measure improvements in practice; some of these KPIs are related to costs. In addition, Table 3.1 shows the relationships between benefits, their impacts and related savings/earnings. Measuring is not an easy task but a correlation between investments and their final positive expected effects, in terms of improvements, should be identified and proved. Investments in IT financial management should be managed in the same way as any other investment using the practices and techniques to evaluate and select them as described in this book (see section 4.1.3 for practices and section 6.5.15 for techniques). This means that expected benefits should be compared with costs and investments checked for available resources. If the acceptance criteria (considering the associated risks and their costs) are met, improvements can be approved; otherwise further analysis is needed and justification should be investigated further or the project discarded. There may be situations where available resources and organizational capacities do not

Benefits	Impacts	Savings or earnings
Ability, frequency and precision of forecasts	<ul> <li>Correct and timely fund raising</li> </ul>	Reduced payments of interest     Reduction in wasted effort due to     aborted or delayed initiatives     (e.g. for unavailable funds)
Ability to understand appropriate and remunerative IT services	<ul><li>Customer satisfaction</li><li>Higher price of services and/ or demand</li></ul>	Higher sales prices or sales volumes leading to higher margins     Reduced ongoing costs
Knowledge of cost dynamics and investment analysis	Improved and efficient decision making	- Cost reduction leading to lower prices or higher margins - Reduction in wasted effort due to aborted or delayed initiatives (e.g. for unavailable funds) - Reduction of decision-making costs (e.g. time spent by managers)
Support of rapid change	<ul><li>Shorter time to market</li><li>Customer satisfaction</li></ul>	Higher volumes of activity leading to better use of resources and/or increment of revenues and margins
Optimization of IT financial management practices	<ul> <li>Improved organization and processes (efficiency and effectiveness)</li> </ul>	Cost reduction     Increased productivity of involved staff
Improved compliance	Improved contribution to corporate objectives and optimized use of corporate resources     Reduction of errors	Reduction in wasted effort due to aborted or delayed initiatives     (e.g. for unavailable funds)     Reduced ongoing costs     Reduced costs of error recovery

Table 3.1 Benefits, impacts and related saving/earnings of IT financial management

allow to proceed with a specific investment, even if it takes considerable benefits. In such a case, investment should be postponed and reviewed when resources and capacities will be available.

In Chapter 6, we will discuss in detail how to implement IT financial management; an incremental approach will emerge as an appropriate alternative. From an investment perspective this means that effort may be distributed over time. It should be easier to justify smaller investments, which are also compatible with the existence of an ongoing budget for process improvement, as described in section 3.2.2. However, it is important to check that this money spent is delivering the expected tangible results. It is essential to continue comparing saving/earnings with costs; justification should be found regardless of the roadmap chosen (initial relevant investment vs. incremental improvements).