

THE SOFTWARE EFFECT ON THE QUALITY OF THE FINANCIAL ACTIVITY OF THE COMPANIES

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Abstract

Organizations now have the opportunity to fulfill most of their information system requirements through software packages, rather than building bespoke solutions. The advantages of this approach, particularly the perceived cost and time savings, appear self-evident. However, there are disadvantages, which must be carefully understood and evaluated before selecting and purchasing a software package. The organization must also be aware that it is probably entering a long-term commercial relationship with a supplier. It may be costly and difficult to end such a relationship, as converting data from one product to another may be prohibitively expensive. Hence the risks of the software package approach must be identified and appropriate risk avoidance and mitigation actions developed.

Key words: *information systems, competitive edge, the quality of the information, the software risks.*

Jel classification: C88, M15, M41.

Introduction

The need for an accountant to have specific competencies in information systems is one of the modern world's demands, which doesn't operate anymore without IT. These days an employee in the financial field must be able to: explain how to effectively use information systems and information systems resources in an organization; identify and apply methods of organizing and accounting for information systems delivery and information systems projects; explain the principles of initiating, planning and controlling information systems projects; participate in the definition and specification of user and system requirements; describe how an appropriate solution might be defined to fulfill the specified user requirements; participate in the implementation, monitoring and maintenance of an information systems solution; participate in the quality assurance of an information systems project; identify how computer software can assist effective information systems management, development and quality assurance.

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There is a strong tradition of bespoke systems development in information systems delivery, where 'in-house' analysts and programmers develop systems to meet the specific requirements of an application. In the formative years of computing there was little alternative to this approach because generalized software packages did not exist and the fragmentation of the hardware market reduced the viability of such an approach.

For many years the marketplace was:

- supported by the notion that systems developers had to be part of the company (like production staff, catering staff and cleaners) and located in an identifiable IT department;
- dominated by mainframe and minicomputer manufacturers delivering expensive and non-standardized technology. The hardware spend (both for purchase and maintenance) dominated the IT department's budget;
- restricted to a limited set of software packages, usually framed to follow legislative requirements (such as integrated accounts) and only available on a restricted number of hardware platforms.

Benefits of the software implementation in the financial activity of the firms

Quality benefits. A further perceived advantage of the software package solution is hinted at in the previous point – the absence of unit and systems testing. The software package is a proven product that has undergone systems testing (in development) and user acceptance testing (by the users who have already bought and used the package). Hence the product should be relatively error-free, as well as fulfilling most of the functional requirements of the application. The implementation should not be affected by the programming errors and misconceptions that can bedevil bespoke systems development.

Time savings. The bespoke systems development needs to be tightly specified, designed, programmed and tested. This part of the lifecycle is very time-consuming and during this period requirements may change, so complicating the process even further. The software package is a product that already exists. It can be purchased and implemented almost immediately. There is no requirement for design, programming, unit and systems testing.

Cost savings. The most quoted advantage of the software package approach is reduced cost. The purchase of a software package is perceived as significantly cheaper than developing a bespoke alternative. In a bespoke system the cost of systems development is borne completely by the organization commissioning the system. In a software package solution, the cost of the systems development is spread across all the potential purchasers of the system. For example, a building company estimating, accounting and job control system that currently costs \$4,000 to purchase, actually cost \$500,000 to develop. This cheapness is usually an important factor in deciding to pursue the software package approach.

Available documentation and training. In the software package approach the documentation can be inspected and evaluated before purchasing the product. The documents (such as user manuals and HELP systems) are usually of high quality because they represent an important part of the selling process. In contrast, the documentation

supporting a bespoke systems development is not available until very late in the lifecycle and is often sub-contracted to users who do not have the time to do the job properly.

A similar principle applies to training. Prospective purchasers can attend a course prior to buying the product and so further evaluate the suitability of the package. Similarly, economies of scale allow the software vendors to produce and provide high quality training courses, supported by professional trainers, at a relatively cheap price.

Organized maintenance and enhancement. Software products are usually supported by a formal maintenance agreement. Although this agreement costs money, it usually provides:

- unlimited access to a help desk, where experts can sort out user problems;
- upgrades to the software that correct known faults and also include new functionality defined and agreed with the user community.

The cost of this support and enhancement is again spread across a number of users and so can be offered relatively cheaply to each individual customer. The cost of providing such services would be extremely expensive if they were borne completely by an organization commissioning a bespoke development. The upgrade issue is particularly significant to organizations purchasing accounts and payroll packages. The functionality of such systems is affected by legislative changes made by government. These changes are frequent and unpredictable. It is comforting for the customer to know that all amendments are covered by the agreed software contract.

The negative effects of IT in the activity of the firms

Financial stability of the supplier.

Internal Information Systems (IS) departments do not go out of business. However, external software suppliers are subject to the vagaries of management and the markets. There is a risk that they may go out of business, or experience financial problems that affect the quality of their support and development services. It is possible to reduce these risks (through ESCROW agreements) but the disruption likely to accompany the enactment of such an agreement should not be underestimated.

The changing nature of requirements.

There is plenty of evidence to show that requirements change during the lifetime of a system. These changes are due to a number of factors:

1. Users change. New managers arrive who have a different perception of requirements and the business process. They demand new output reports to support their particular management information requirements.
2. The business changes. The business may decide that it wants to operate in a different way. This may be led by new product and marketing initiatives or may simply be a reaction to changes in the business environment that force the company to re-think its organization, products and services.
3. Changes due to:
 - actual experience: using the software may lead to a realization that functional requirements were not quite correct.

- emergent hardware and software technologies: bespoke systems can usually be amended to reflect these changes. However, software packages may or may not. The problem is still one of control. It is not possible for the software supplier to predict or to cope with changes in a particular business implementation. Some of the changes may not be incorporated into a future release but, at the outset, there is no guarantee of this.

Competitive edge.

Many organizations claim that they use (or wish to use) IT and IS as a competitive edge in the market place. They develop bespoke systems to give them that edge. In the software package approach, the software solution (or product) is open to all competitors and potential competitors. It is difficult to see how such a solution can provide a competitive edge, as all potential competitors have access to that solution.

Ownership.

In the bespoke systems development approach, the ownership of the software usually resides with the purchaser – the customer, not the supplier. This is particularly clear if the development is undertaken ‘in-house’, because the ownership of the code clearly resides with the organization, not the IT department or individual programmers. Even if an external software house produces the code, the contract usually specifies that the source code belongs to the commissioning agent (the customer) and not the supplier.

In the software package approach, the ownership of the software usually remains with the supplier. Customers are licensed to use the product, but they never own it. This ownership issue has a number of implications:

The supplier decides the future development of the package. Hence, future functionality is not in the control of the customer – although of course they can lobby for certain features to be included in future releases.

The software supplier can make decisions about the ownership and support of the product. For example:

- The software supplier may decide to withdraw support from earlier versions of the package. Hence customers may be forced into unnecessary (and potentially expensive) upgrades. This may involve hardware upgrades.
- The software supplier may decide to sell their product to a third party. Individual customers may be unnerved or inconvenienced by such a move. For example, a few years ago a popular package was sold to a large industry player with a reputation for aggressive customer relation. Many customers of the package were worried by this move (despite assurances from the new owner) because they were more comfortable with the ‘laid-back’ approach of the former owner. Some began to make plans to move their systems to a rival product.

The key issue here is that the software purchaser has little control over the future direction and ownership of the product they are buying. This is not the case with a bespoke development.

We are increasingly comfortable with all things internet. We love to Google, we book our holidays online, buy our groceries, apply for jobs, administer bank accounts, file tax returns, and e-mail has become the primary form of business communication for many. From here, the move to equally widespread online bookkeeping is not exactly a giant leap - and software suppliers seem to realize this.

Accountants who want to exploit the benefits of online accounting are literally spoiled for choice. But it is worth wading through the various possibilities in search of something that will suit your business, whether you are employed by a small enterprise or run your own accounting firm because, in both scenarios, the online approach to accounting and bookkeeping can offer advantages over the more traditional approach.

When a bookkeeping application is provided online using the 'software as a service' model, you do not need to install and maintain the software on a PC, network multiple PCs together to enable them to share data, upgrade to the latest and greatest hardware or remember to backup your data. Anyone can gain tap into bookkeeping software and the company's financial data using a browser, as long as they have permission to do so, plus a PC, a telephone and an account with an internet service provider.

With an online bookkeeping system business users can work on their accounts any time it suits them, from anywhere with internet access, and their accountant can do likewise, making clients easier to manage and support.

By reporting financial information through the standard, investors, regulators, analysts and companies can benefit from increased transparency and usability of the information, and faster access. The way information is formatted today, in paper and electronic-paper form, it would take five or six hours to get information on the five largest semiconductor companies and put it into an analytical application of any kind.

Conclusion

The recognition that IT may be best organized as a procurement, rather than development, department. There has been a trend towards outsourcing as companies have downsized to concentrate on their core business. Consequently, the number of developers left to produce the in-house solutions has reduced significantly. IT is not the only function to be affected in this way. Cleaning and catering, once provided by local employed labor, has now been outsourced by many companies.

The reduced cost and standardization of hardware has meant that fewer organizations are tied into a manufacturer's strategy. Software is available across a limited set of dominant platforms and the cost of moving from one platform to another has considerably reduced. Software (or more accurately the people who develop it) is now the most expensive part of systems development. As a result, the cost of software production is closely monitored.

Finally, the passage of time has led to more software products being made available. This has strengthened particular market sectors (for example, there are many integrated accounts packages available in the market) as well as broadening the scope of package

solutions. There are packages for golf club administration, patient records, marketing, family tree construction, etc.

As a result, many organizations have focused more on fulfilling their requirements through the purchase of an appropriate software package. The perception is that this is a cheaper, faster and more reliable approach to systems development. Hence the task is to find a package that fulfils user requirements or to differentiate between competing packages that all appear to do the job. This article looks at some of the perceived advantages and disadvantages of the software package approach to information systems delivery.

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