

Unlocking Sustained Business Value from IT Investments

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Abstract

Surveys continue to highlight that most senior business executives are dissatisfied with the value they believe their organizations are deriving from investments in information technology (IT). Their usual response to this situation ranges from trimming IT budgets, to converting the IT function to a profit center, to outsourcing all or part of IT. Yet, all of these actions fail to recognize that business executives themselves play a pivotal role in delivering business value through IT. What is often forgotten is that IT in itself has no inherent value – just having a particular system does not automatically confer any value to the business, even if the investment is aligned with business objectives and supported by a rigorous return on investment (ROI) analysis. This value must be unlocked and only business executives and users can do this. Importantly, this achievement of business value must be actively managed for. While most IT investments are usually accompanied by a technology implementation plan, few organizations ever construct a plan focused on realizing the business benefits. This article reports on research that the authors have been conducting over the last decade that explores how organizations can unlock business value from their IT investments. To illustrate the issues encountered in delivering value, as well as the application of a number of tools, an example of an enterprise system (ES) investment is used throughout the paper. The research suggests that organizations should adopt a two-stage view of implementation for large-scale IT projects. The underlying message is that unlocking business value from IT investments is a journey not a destination.

Recently, we were asked by a mid-sized retail financial services institution to assist them in constructing the investment proposal for a new customer relationship management (CRM) system. The need for such a system had been identified during the company's latest IT strategy process. The internal team tasked with developing this proposal had spent the previous four months talking to senior business managers about their requirements and expectations, attending seminars to improve their knowledge in the CRM area, as well doing the usual rounds with vendors and undertaking reference site visits. They had also run a series of workshops with key stakeholder groups within the organizations who would be impacted by the new proposed system. In finalizing their report to the Board, two issues sat uncomfortably with them. First, the return on investment (ROI) calculations were proving difficult to financially justify the investment, particularly as the bank was looking for a quick return. Second, from their conversations with management, they knew that one of the central questions that would be posed by the Board was around the certainty of the benefits they had identified actually being realized and they had no real answer to this question.

From our research the situation that this team now found itself in is not too uncommon. The issues the team faced are similar to those of any proposed IT investment. After all the hard work of gathering data, conducting interviews and workshops, putting it all together in a way that makes business sense can often prove difficult, particularly in a climate where "value for money" is the watchword. While the information technology (IT) strategy might call for the implementation of a particular application, ensuring that the full business value from this investment is unlocked can be problematic.

Research that we have conducted over the last 5 years investigating enterprise systems (ES), as well as a longitudinal study exploring the process of unlocking business benefits from IT-enabled initiatives, provides valuable insights into addressing the situation painted in the above scenario (see Appendix 1 for an overview of the research base from which this paper draws). The lessons from this research are also valuable in helping not only to assess the likelihood of benefits identified actually being realized but also in building a stronger and more realistic implementation plan. We have encountered many situations where a strong business case has been made for

an investment together with a well considered ROI calculation, yet the business benefits sought never actually materialized despite the fact that the project was delivered on time, within budget and met the technical specification.

Understanding the investment context

One lesson from our research is the importance of understanding the business context of the investment being considered. All too often, IT projects quickly become technology projects rather than business projects and the context for the investment is soon forgotten. Returning to the situation which the bank faced, it must be remembered that although CRM is a recent concept, its tenets have been around for some time. Marketers have always promoted building close relationships with customers and providing them with a consistent experience.¹ The requirement to listen to and understand customers and to target them appropriately through segmentation and channel strategies has been touted as significant for many years, but has been difficult to achieve, not least as many companies are organized along product or channel lines as opposed to customer² - and legacy IT investments have served to reinforced this situation. Similarly, the concept of mass customization has been in the literature for over a decade.³ However, all have remained essentially theoretical concepts; aspirations rather than either a practical or commercial reality. Today, due to advances in IT, particularly software systems, the promise of one-to-one relationships, effective campaign management, lead generation and opportunity management, customer-value analysis, propensity modeling, customer self-service, automated fulfillment and mass customization are now possible.

However, CRM is not a product that can be purchased; it is a discipline, a framework, and integrated approach to managing relationships with customers which requires continuous improvement. It is a strategy, not a tactic, and although usually supported by IT, it will generally involve considerable organizational re-design, often changing the focus and culture of the organization. CRM is not easy and the evidence suggests that many companies are struggling with their efforts.⁴

If we first examine the nature of the investment being made, and particularly its purpose, we can gain some insights as to the “real” problems of illustrating ROI from CRM technology. Cutting through all the arguments that vendors make to promote their products, by investing in a CRM system the bank was ultimately seeking to reduce costs or increase revenue, ideally both. Its strategy called for “adding value through customer service”, increasing loyalty and reducing marketing and sales expense. The route to achieving these objectives was seen as through focusing on how it relates to its customers. Improving customer relationships, so the theory goes, is achieved by improving how the bank deals with them, services their account and meets their needs, both financial and otherwise.⁵ Better relationships would lead to more business being generated by existing customers, a decrease in numbers defecting, with automation reducing the overall cost of servicing customers.

However, to achieve these improved relationships, the bank would first have to get to “know” their customers. The particular bank in questions knew, for example, how many accounts were held at its branches but it did not know how many customers it had. As its credit card division was a separate business, incredibly they did not know if a customer with a checking account also had a credit card. In addition to knowing who their customers were, the bank would also have to gain some insight into customers in order that it could better understand their needs and preferences and, if appropriate, be in a position to tailor its products and services to them. Information could be used to segment the customer base in order to focus marketing and campaign activities as well as help develop channel strategies and in constructing and introducing new products. Staff, both in the branches and in the call center would obviously require training to use this information in their interactions with customers, thereby improving the engagement process. And, of course, there is the not too insignificant problem of collecting this information at all points of customer contact whether it be in a call center, through an ATM, over the Internet via a customer portal, or in a branch.

Now, if we examine closely what the bank is attempting to do, in business terms, we can see that it is clearly not something that is synonymous with the “quick return” it was seeking. There are two issues that are of key concern here: building relationships

with customers and the related issue of increasing its understanding and knowledge of customers.

The first point to note is that building relationships with customers is a process not a point concept. And, whether the bank likes it or not, the power in the relationship ultimately lies with the customer and if they are unhappy with the products or level of service they receive, they are very likely to take their business elsewhere. The nature of the relationship is therefore assessed by the customer based on *their* experiences in dealing with the bank. Repeated positive experiences generally lead to a closer relationship and increased loyalty and ultimately generate more business.⁶ However, by definition, such experiences occur over an extended period of time as the customer and the bank interact with each other – not just weeks but often years – although one bad experience could ruin the relationship for ever. Consequently, seeking a quick payback is inconsistent with the process of building customer relationships.

The second issue of improving its understanding of customers requires information. This information is used to obtain a more comprehensive picture of individual customers and will probably involve developing propensity models and building customer value models. But again, this information is collected over an extended period of time – no CRM system comes with a database pre-loaded full of customer information. Populating the customer database depends on this information being provided by the customer and also on this information being actually collected and recorded. Sometimes basic customer information can be extracted from legacy systems but its is often inaccurate or incomplete as many legacy systems were usually designed to process transactions or administer products. The more information collected the better the insights, assuming of course that the “correct” information is gathered. And more, in this instance, generally means a long protracted time period is required. Of course all this assumes that the organization actually has the ability to glean such insights from the data and our analysis would suggest that this is often not the case.

On a more positive note, operational benefits, particularly process efficiencies and cost savings, generally emerge more rapidly. Responding quickly to customer requests and queries can improve effectiveness as well as contributing to overall

customer satisfaction. One Dutch insurance company we studied justified its entire CRM investment based solely on the savings that would be made in its personal injury claims processing. Systems costs can also be reduced if replacing legacy systems which tend to have a high maintenance cost associated with them. New technologies also tend to be more flexible.

Self-service customer portals can also decrease service costs while improving customer responsiveness. Providing front-line staff with access to customer information direct from their workstation not only improves responsiveness to requests and the quality of their interaction with customers but means that the search for information in legacy IT systems or worse, in physical filing cabinets, becomes a thing of the past, thereby improving efficiencies. This can have the knock-on effect of improving employee satisfaction and the impact of this on service quality can be significant.⁷

As with any IT investment, benefits are only likely to emerge if organizational processes are redesigned. This task of reengineering business processes should not be underestimated – and it often is with CRM systems. The resultant change in work practices that usually accompanies any redesign can result in staff resistance if not managed appropriately.⁸ In addition, successfully achieving process outcomes will usually demand a change in the culture of the organization. Many CRM projects fail to deliver the return expected due to their failure to manage any transition required. For example, in retail financial services, staff at most institutions have traditionally serviced accounts or policies not customers, and indeed their legacy systems not only reflect this but also promote behavior which is often at odds with building customer relationships. Front-line staff must also understand why it is important to accurately capture all customer contact information. If they don't it could undermine the very information base underpinning the CRM initiative – garbage in, garbage out really does hold true. Staff also have to have confidence in the system so that if the systems prompts them to recommend a particular product to a customer that they believe that there is a strong likelihood that the customer might be interested.

Unlocking the potential benefits of IT investments

Regarding the guaranteeing of benefits – which the Board was inevitably going to demand – there are none. Just buying the CRM software, as with any piece of software, does not mean that the benefits identified in the investment proposal will automatically accrue. In our research, one finding is indisputable: organizations must actively work to ensure that the benefits of the investment are actually delivered. The bank in question had identified potential benefits such as increasing retention rates, improving cross sell opportunities and conversion of leads into sales, reducing the cost of marketing campaigns, and increasing average number of products per customer, in its ROI calculations. But as our research has continually shown, planning and then actively managing for the realization of these benefits is paramount. The evidence suggests that developing a *benefits realization plan*, outlining all of the business changes that must occur in order to deliver the benefits, will greatly increase the likelihood of them actually being achieved. This aspect is often overlooked. For too long organizations have focused the attention of their IT “value for money” crusade on reducing IT spend rather than on value creation and benefits realization.

There are four assertions that underpin the process of unlocking value from IT. First of all *IT has no inherent value in itself*; just having technology does not confer any benefits or create value. In fact, all the spend serves to do is incur cost - benefits must be unlocked. Secondly, *only business managers and users can release these benefits* - benefits come from business changes not from the technology, although the technology will support and enables these changes. The consequence of these two assertions leads to a third: *benefits must be actively managed for* as they are not something which automatically occur.

If we examine a typical IT project, a number of observations can be made in relation to benefits: they are often not properly identified at the outset; they are generally not managed; they do not all emerge immediately once the system goes “live”; and benefits depend upon business and technical changes in a complex way. This last point highlights not only the uncertainty of benefits, for example that similar technologies can have different consequences in similar organizations⁹, but our lack of understanding of the process of value creation through IT.¹⁰

Figure 1 illustrates a framework for positioning the outcomes of any IT project. This framework simply maps the effect of the outcome on the organization (whether it is positive or negative) against the predictability of the outcome (whether it is unexpected or expected). The figure serves to illustrate that in seeking to deliver benefits from IT that management's attention must be on ensuring that the positive/expected area is as large as possible through an effective process that increases the chances of the benefits actually manifesting themselves. We have coined the concept of benefits management to refer to the *process of organizing and managing such that the potential benefits arising from the use of IT are actually realized*.

Benefits management is not just about managing for the positive expected outcomes but also emphasizes managing outcomes in the other three quadrants, particularly any negative consequences which might be detrimental to the success of the project. Conceptually, the objective of benefits management is to increase the area covered by the expected/positive quadrant and reduce the area of the other three, especially the bottom two. This leads us to the fourth assertion: *all IT projects have outcomes but not all outcomes are benefits*. This is a simple, yet profound statement. For example, reducing the cycle time taken to process new business may be an outcome of a new policy processing application but it is only a benefit if this results in increasing customer satisfaction and retention levels, better utilization of customer service staff, and perhaps attracting new business. The challenge for management is to ensure that outcomes translate into business benefits.

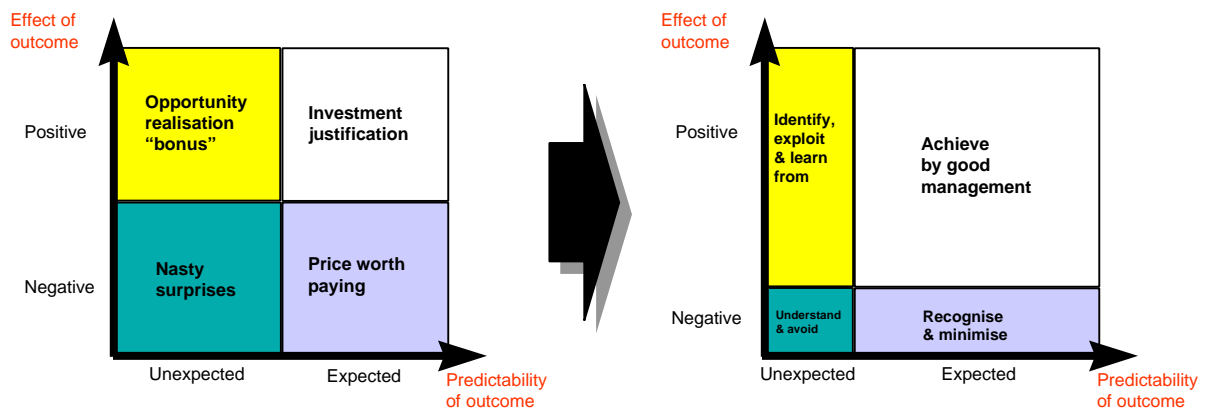


FIGURE 1 Setting the overall objective of benefits management: possible outcomes of IT investments.

Despite the simplicity of the benefits management concept, our research highlights that fundamental organizational and managerial mindset changes are required if it is going to become a part of the management process. Figure 2 captures some of the more profound shifts that we have identified.

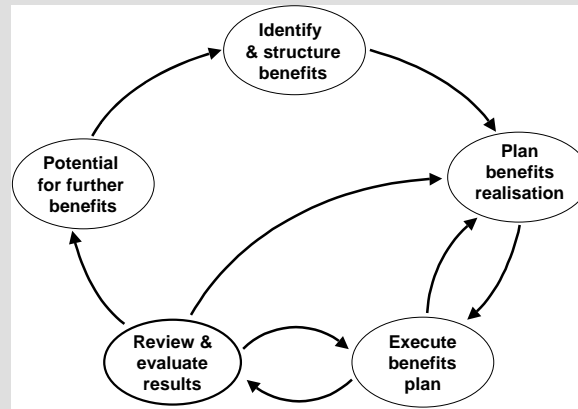
What is key, is for the focus of attention in IT projects to shift away from delivering technology to delivering benefits. After all, this is why the investment is being made – a fact that is often lost on some management teams. Although business benefits emerge from business changes not IT, organizations typically develop an implementation plan for IT but not one for the realization of benefits. With this as the new focus, the overall management of the project is centered around benefits tracking as opposed to low level task monitoring, something that accompanies traditional project management approaches. The traditional IT implementation plan becomes a change management plan. Focusing on change management requires that the business manager can no longer assume a neutral role but must not only be actively involved in the project but also in control. In fact, all stakeholders must be “involved in” the project rather than “subjected to” the technology. There must also be a fundamental shift in thinking, away from merely providing training to use the technology to management and user education in the exploitation of technology. With a CRM systems, for example, users must appreciate the customer experience. Finally, rather than undertaking a post-implementation technology project audit, which often becomes a witch-hunt after a project is perceived as having failed, the focus shifts to reviewing the project to assess whether expected benefits have been achieved,

drawing out lessons and experience from the project in order to incorporate these in future projects while also seeking to leverage further benefits. Understanding the opportunities provided by IT is often experiential; it may be only after having used the new system for a time that managers and users begin to see new possibilities. As we shall illustrate later, implementing any enterprise system project is often best seen as a two stage process, where the nature and scope of benefits differ, but where this learning loop is necessary.



FIGURE 2 Shifting mindsets for successful delivery of benefits from IT investments.

Through our research with some of Europe's leading corporations we have developed a process that has proven itself to increase the likelihood of benefits actually being realized. Illustrated in Box 1, it is an iterative process beginning with the identification and structuring of benefits through to planning for the realization of these benefits, executing the benefits realization plan, evaluating and reviewing the results, and searching for further benefits.



The benefits management process has five interdependent stages that can be described as follows:*

Identifying and structuring benefits: The process begins by understanding the business drivers for the project; identifying all the possible benefits, and expressing these in business terms; quantifying and establishing a value for benefits (“scale and money”) and determining the distribution of the benefits (“where and who?”)

Planning benefits realization: Following on from this, decisions regarding “how” the benefits are going to be achieved, i.e. the business changes required, (including the identification of who will be assigned responsibility) and “when” the changes will be made are determined. Establishing metrics for performance measurement and ongoing monitoring of the project is also important.

Executing the benefits realization plan: This is the “making it happen” phase, in essence executing the change management programs. Monitoring progress against the activities of the benefits realization plan is just as important as for the IT development plan.

Evaluating and reviewing results: The philosophy of benefits management is that the benefits are tracked during the lifetime of the system. It entails formal reviews of what was and was not achieved in order to maximize the benefits of the project. The project is also evaluated not only to establish learning for future project but also to identify the *potential for further benefits*.

* More detailed information on this process can be found in John Ward and Joe Peppard, *Strategic Planning for Information Systems*, 3rd Edition, John Wiley & Sons, Chichester, 2002.

BOX 1 The benefits management process.

The application of the benefits management process requires the use of models and frameworks. Many of these were developed during the course of our research and today there is a comprehensive tool box available to support organizations in their quest to realize business benefits from IT.¹¹ The remainder of this paper will focus on the first two stages of the benefits management process as this is where most IT projects are weak. The remaining three states are concerned with execution and implementation once the benefits realization plan has been developed.

The essence of the first two stages of the process can be summed up as a series of questions that have to be answered in order to develop a robust business case for the

investment and a viable change management plan to deliver the benefits. These questions and their relationships are shown in Figure 3. Only when this assessment has been completed and the feasibility of achieving the target benefits thoroughly tested should a business case requesting funding for the IT investment be developed. More importantly, this is supported by a comprehensive benefits delivery plan which greatly increases the likelihood of the benefits actually being realized.

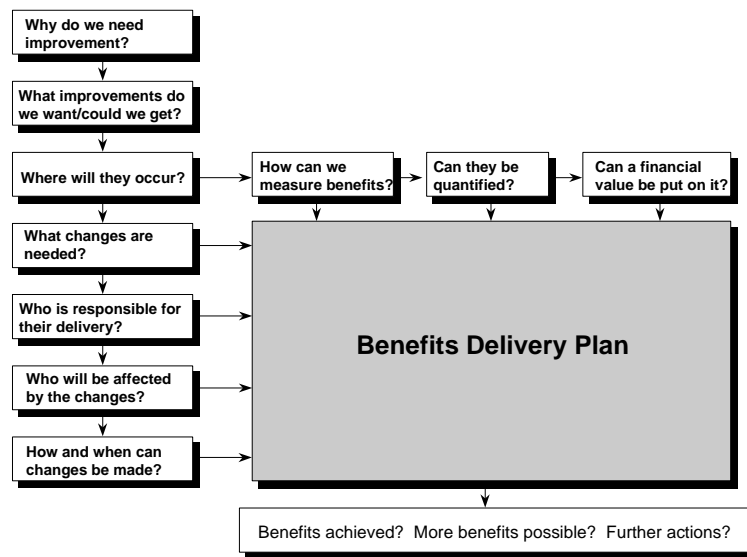


FIGURE 3 Constructing the benefits delivery plan.

The Benefits Dependency Network

One powerful tool developed during the course of our research that can help in constructing the benefits delivery plan is the Benefits Dependency Network (BDN). The BDN provides a framework for linking the overall investment objective with the requisite benefits, describing the business changes which are necessary to deliver those benefits and the required IT functionality to both drive and enable these changes to be made. Figure 4 illustrates a partial network for a CRM application developed during our work with a large European paper manufacturer – the actual network was considerably more complex. What this network highlights is what needs to change in the organization before the benefits can be realized and the investment objectives met. This can facilitate management in identifying where interdependencies amongst the change activities exist.

The changes can be categorized as one of two types: a *business change* or an *enabling change*. These can be distinguished as follows:

Business changes - are those changes to working practices, processes, and/or relationships which will cause the benefits to be delivered (or begin to be delivered). They cannot normally be made until the new system is available for use and the necessary enabling changes have been made; e.g. allocating more sales time to potentially high value leads identified by the new system, requires the system and perhaps other enablers to be in place.

Enabling changes - are those changes which are pre-requisites for making the business changes and/or are essential to bring the new system into effective operation. These often involve defining and agreeing new working practices, redesigning processes, changes to job roles and responsibilities, new incentive or performance management schemes, training in new business skills (as well as the more obvious training and education in the new system), etc. They can often be made, or have to be made, before the new system is introduced, for example, agreeing a new sales account management and incentive scheme to ensure rewards reflect the attention to high value customer needs.

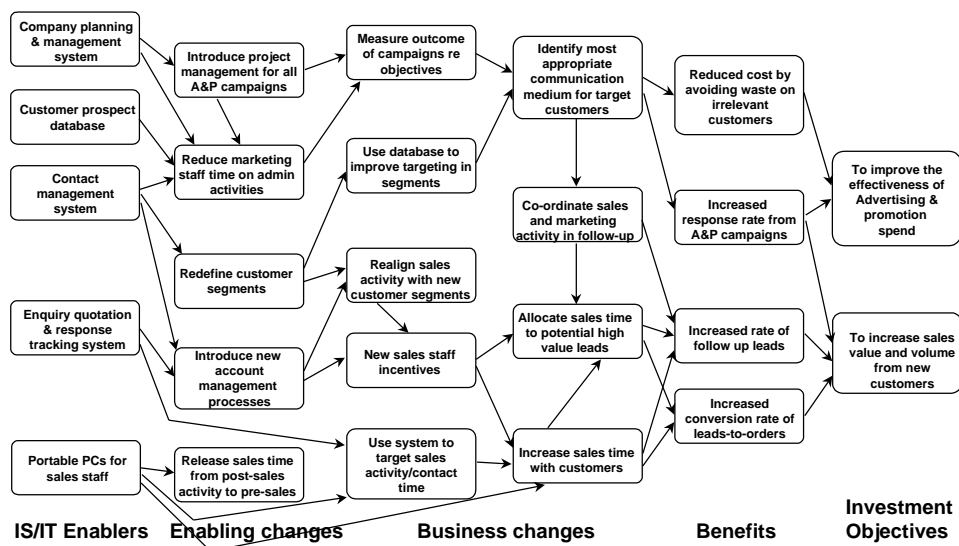


FIGURE 4 An example of a (partial) benefits-dependency network.

Once the initial BDN has been constructed, responsibilities for each of the changes must then be assigned and time-scales established. Assigning ownership for making the changes will help focus management attention. Expecting the changes to occur automatically is leaving too much to chance, but this is exactly what happens in many IT projects. In our work, we have found that management teams often struggle to construct the BDN, even after a project has started, yet it is these very changes that will ultimately deliver the benefits.

In addition, determining metrics to assess progress across the range of changes can prove very worthwhile and these can also be linked to staff compensation. One global pharmaceutical company we worked with developed a BDN for the implementation of its Shared Services Center across 13 European countries. All of the change activities identified in the BDN for the new enterprise resource planning (ERP) system were cascaded down to the level of the individual employee and built into their 6 monthly performance objectives.

Some organizations have used the BDN to help in scoping individual work packages on a large-scale project. Through identify all the necessary changes to deliver a particular benefit or set of benefits, one particular insurance company created a number of sub-projects, which were then implemented on a phased basis. Each sub-project focused on achieving particular 'benefit streams' and provided focus to what was a complex project. This is in contrast to the fragmented approach that organizations often adopt with IT projects, where phased implementation is based on technical components not business benefits.

Stakeholder analysis

Before the network and resulting benefits plan can be finalized a thorough *stakeholder analysis* is required to check the feasibility of achieving all the changes (and hence benefits) on the network. The purpose of stakeholder analysis is to understand those organizational (and possibly customer or supplier) factors that will affect the organization's ability to achieve the required improvements. The first task is to establish who all the stakeholders are with respect to the investment – this is often

seen simplistically as whoever is paying for it and the IT specialists! In reality, anyone affected by the system or the process of development is a stakeholder and the view they take of the investment may influence the outcomes. It may have been possible to identify all the relevant stakeholders at the start of the project and involve them in creating the BDN, but this is not always feasible and a thorough analysis of stakeholder issues is needed.

The main objective of this analysis is to address the “what's in it for me?” problem of IT investments. Often projects fail because of the lack of co-operation of parties who were not considered material to the system's success but whose ability or willingness to accept change or otherwise is essential, requiring their active co-operation in delivering the real business improvements required. At the same time, potential “disbenefits” of the system should be considered, i.e. what adverse impacts on the business, organization or particular stakeholder groups may result. Some of these may be deemed unacceptable, and the objectives or scope of the system should be revised or actions put in hand to ensure that these disbenefits are avoided. No one wants nasty surprises at the end of the implementation. So, as far as it is possible, these should be anticipated and avoided by action during the development process. The analysis should also enable stakeholder views, which might cause potential negative effects and hence risks, to be identified and dealt with through other actions. The additional actions identified become further “enabling changes” which should be added to the network.

Figure 5 illustrates a framework for conducting an analysis of stakeholders.¹² Each stakeholder, whether an individual or a whole business unit, is considered in terms of the extent to which they perceive the project producing benefits for them, relative to the amount of change they will have to undergo or endure before the benefits are likely to accrue. Some form of resistance can be expected if they perceive the changes outweigh the benefits or if stakeholders have to endure significant change for no benefit. That resistance could cause major project risks. Based on the current positioning of each stakeholder and the required level of resources or support they are needed to provide, an action plan to move their perceptions or deal with their concerns can usually be devised. However, in some cases the gap may be too great that the ambitions for the project should be reduced to enable at least some of the

benefits to be realized. Whether substantial additional action is justified or it is better to reduce the investment scope, depends on the number and value of the particular benefits that the stakeholder ‘resistance’ may affect.

The other reason for the analysis of stakeholder interests is to consider aspects of business change outside the particular project, and the possible implications on achieving the benefits. For instance, other business initiatives, reorganization and possible changes in key stakeholders may have a significant impact. The purpose of assessment is to obtain ownership and buy-in of relevant individuals and groups, and to identify organizational factors that will enable or disable the achievement of the benefits, or otherwise significantly affect the outcome.

In summary, the benefits management process seeks to provide a framework for maximizing the return from IT expenditure. It is not simply a cost/benefit technique nor is it an expenditure proposal methodology. Benefits management is a life-cycle approach to delivering positive return on an organization’s IT projects. It provides a framework and a toolkit for mapping the flow of achievable benefits as a result of investment. Of course, this benefits delivery plan is in addition to the traditional technology implementation plan, which will still be required to ensure that that technology is implemented.

Stakeholder Group	Perceived Benefits/ (Disbenefits)	Required Changes	Nature of Resistance (if any)	Readiness for change	Actions to take
Customers	Configuration tailored exactly to needs - no testing / reject	None	None	NA	
Sales and Marketing Managers	Improved customer service and product quality image	New incentives to get Sales Reps to use system with customers	Reluctance to change Reps reward systems	Medium	Must see productivity improvement tied to new reward structures.
Sales Reps	(Extra work in preparing requirements and quotes)	To use system and improve quality/accuracy of quotes	No time available to use/ learn system. Loss of autonomy	low	Give time to learn. Providing training. Show benefits to them
Manufacturing / Logistics	Removes need for configuration checking. Less returns/queries	Stop current checks to put onus on Reps to get it right	Do not trust Sales Reps' accuracy in requirements/ quote	High	None. Over time will trust accuracy
IT Developers	New advanced system - remove old difficult to maintain system	Skills in Expert System development	None	NA	

FIGURE 5 A framework for stakeholder analysis. Data based on a project to provide mobile sales staff with an expert system for product configuration.

Assessing the accuracy of benefits

A related question that invariably arises in discussions about the investment proposal, revolves around the listed benefits and their accuracy. The failure rates associated with IT projects has resulted in IT investment proposals often been seen as works of fiction. This is even more so today after the perceived unnecessary spend of 'Y2K' and the failure of 'e' to deliver on its over hyped promise. How for example, can the bank be certain that, because of the CRM system, customer defections will decrease by 50%? Or that the average number of products held by customers will increase from 1.1 to 1.6? Perhaps defects will only decrease by 35% and average number of product holdings increase to 1.4. Where do these figures actually come from? How can they be validated? Of course sensitivity analysis can be performed vis-à-vis the figures to identify the level of benefits required, given the level of investment, to generate a certain expected return. However, this does not get over the fact that the certainty of benefits is still an issue.

Industry averages can be used. Results from what competitors have achieved can also help in setting threshold levels. Yet it is likely that competing organizations will have competing strategies. Therefore, the CRM systems will be supporting the strategy in different ways, therefore industry averages only indicate, well, what is average in the industry. We're assuming that most firms wish to above industry average, although many would settle for being average if the alternative is below that.

Site visits should not just focus on 'what' was achieved but also 'how' achievements have occurred. Ascertaining lessons as well as identifying some of the pitfalls can prove valuable, and should be incorporated into the benefits management process. It is also important to remember that the value of any customer relationship is context specific. Just because a similar organization achieved a particular benefit does not necessarily mean that it is available to all who buy the technology they use.

Any ROI calculation must additionally be tempered by the fact that benefits may depend on customers changing their behavior. For example, developing a self-service Internet portal assumes that customers will actually use this new channel or that

implementing a call-center will automatically divert customers away from more expensive channels. Customers can be unpredictable. And, despite the “R” in CRM, due recognition must also be given to the fact that some customers may not want a relationship at all. One customer of a mobile telecommunications operator that we interviewed was adamant that he does not want a relationship with his provider but a dial tone whenever and wherever he wishes to make a call – as he put it, he wants “competency not intimacy”. However, even customers who don’t want a relationship do expect you to show that you remember them, that their custom matters to you, that your communication to them is relevant, and that you treat your best customers well. They will know that you have got it wrong if you are clearly trying to ‘buy’ new customers at their expense or they gets lost of email just because it is easy to send. Assumptions regarding customer behavior must therefore be surfaced and factored into any business case and investment proposal.

Lessons from the marketplace

A key characteristic of all enterprise systems, such as CRM, ERP, supply chain management (SCM) systems, and Electronic Patient Record systems, is that they affect a large number of organizational processes. However, their main differences from more traditional IT developments are the ambitious intentions, the application complexity and cross-functional scope, the range of different stakeholders involved and extent of business and organization changes needed to accommodate the new business models inherent in the application. Oh! and the possibility of bringing the business to a grinding halt if it fails!

Whilst ES implementations are, based on their scope and potential impact, major organizational change initiatives many default to become ‘software projects’. In a survey of the success criteria for ERP projects 89% were judged successful – the software worked and the project was delivered close to time and cost forecasts. But only 25% had achieved the intended business benefits.¹³ The example in Table 1 perhaps summarizes the main reasons for this from the experience of one organization. The organization concerned implemented the ES package twice! The

first time was unsuccessful, but they realized why and had the courage to try again and this time they succeeded in delivering the expected business benefits.

TABLE 1 Implementing enterprise systems – one company’s *experience*.

FIRST ATTEMPT - FAILURE	SECOND ATTEMPT - SUCCESS
Led by the IT function, with insufficient knowledge of the business function concerned	Business function led, by a newly recruited manager, experienced in the function, supported by IT function
Belief that the requirements were simple and already known - just use the package to automate the current process	Site visits and reviews of other companies’ procedures to establish best practice and system requirements
Belief that this was a low-risk and straightforward implementation	Knowledge that this would require some major changes
Lack of business buy-in led to both the new and old (mainly manual) system remaining in place, and little move by the business to adopt the new system	New procedures completely replaced the previous system and all staff were required to use them; facilities for the old system withdrawn
Little business or process change	Organizational and business process changes
Bespoke amendment of package. Longer and more complex system build, and difficulty applying upgrades	Minimal changes to the package, and innovative use of built-in facilities. Shorter delivery timescale and easy future upgrade paths
Costs, no benefits	Benefits have exceeded expectations

This company’s experience is not unusual – many organizations are re-implementing such systems to gain the benefits that were not achieved the first time. For example, a major pharmaceutical company implemented an ES worldwide in the 1990s across all its manufacturing units, but allowed considerable degrees of freedom to each unit in how it ‘customized’ and utilized the package. As a result the major supply chain benefits that were expected did not accrue. The re-implementation is more standardized and requires the units to change their practices to improve the performance and agility of the supply chains for all the main products.

Figure 6 illustrates 3 implementation modes that we observed during our research. The first is “the dream”, where implementation is seen as a relatively straightforward process (see Figure 6a). Research illustrates that this rarely is the case and is a rather naive view of what is a complex process.¹⁴ The second is “the nightmare” where business problems, constraints and management and organizational issues see the progress of the implementation spiraling out of control (see Figure 6b). The third mode, “the best hope,” is that followed by those that have been most successful with their ES implementations (see Figure 6c).

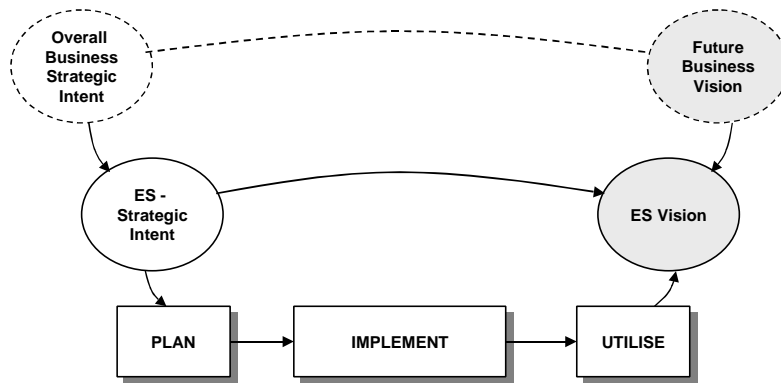
This third implementation mode reflects a recurring two-phase approach to implementation.¹⁵ The first phase involves creating a coherent link between the future business vision and how the ES either creates that vision or enables it to happen. Unfortunately that vision often ignores or minimizes the current problems and constraints that limit the organization's ability to implement the system successfully. Our research suggests that a more appropriate approach to the first phase is to establish an overall vision for how the business will operate once the full benefits of the system can be realized, but set an initial intent that delivers a 'new baseline' where problems and constraints have been removed. Phase I implementation should deliver this new baseline, often via a basic, even limited, standard (or 'vanilla') implementation of the software with associated essential business process and practice changes. Indeed, studies¹⁶ show that business performance often deteriorates immediately after implementation and contingencies to allow for this are needed – increased inventories, more resources and informing trading partners of expectations. A 'shakedown' phase normally follows in which an understanding of:

- how to optimize performance through further changes to business processes and practices and software re-configuration and
- how further benefits can now be achieved by using more capabilities of the software and by more radical or extensive business and organizational changes.

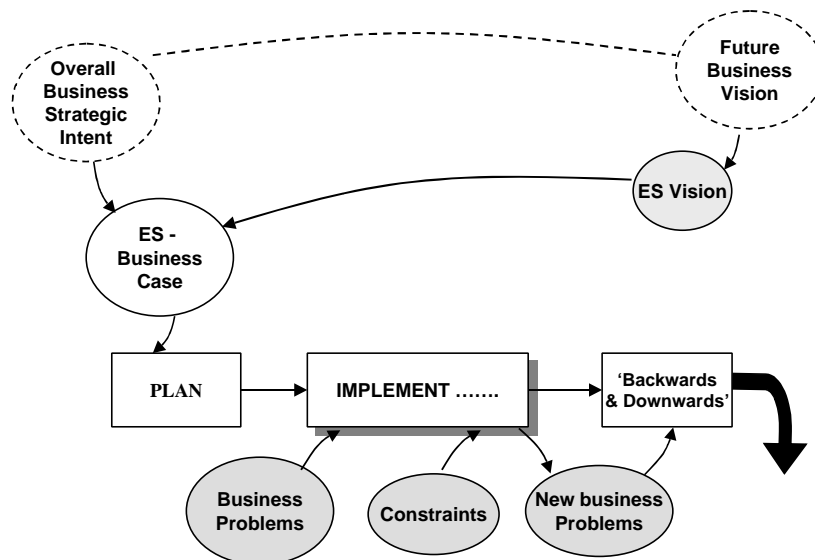
A new vision (hopefully not much reduced from the original!) is then needed to develop new objectives and plans to achieve innovations in business processes and practices based on the ES capability now available to the business. The two stages can be summarized as 'problem based' to achieve a new starting point from which 'innovation-based' development can be launched.

At the start of a large, ambitious IT project it can be difficult to get sufficient consensus on what the future will look like and how to get there, when a wide variety of current issues and problems are the focus of day to day management attention across the organization. Removing those problems releases the organizational ability to envisage and agree how new ways of conducting business can be created. One UK

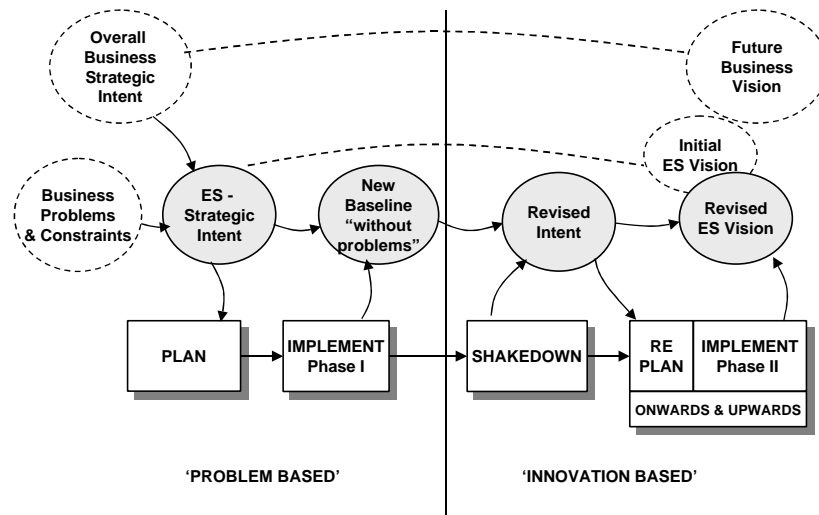
bank where we conducted research had difficulty in getting branch staff involved in defining requirements during the CRM project. Senior management’s vision of the project was built around retention and cross-selling. Branch staff, on the other hand, just wanted a system to process transactions speedily and to get the customer out of the branches as quickly as possible. Getting appropriate engagement and buy-in proved difficult and the progress of the project labored at times. Yet, after the system has been up-and-running for a year, staff begun to see what was possible and became very proactive in making suggesting for further development. The CRM program manager summed up their experience by noting that “it has been a learning experience for everyone involved.”



6a. The Dream



6.b The Nightmare



6c The Best Hope

FIGURE 6 Emerging ES implementation modes.

Implementing an ES is a business transformation program, not an IT project. Very few fail because of the inadequacies of the technology. When they do fail the reasons are organizational and in many cases due to different perceptions of the intent and benefits and extent of changes required, between senior executives and operational line management and amongst the line managers in different functions or units. Our research suggests that that successful implementations have been carefully, even slowly, planned to gain the understanding and commitment of the majority, if not all, the stakeholders to the benefits and establish how best to implement the changes in each area, followed by rapid implementation. Often two-thirds of the project duration was effectively 'planning' and one-third was implementation. Many failures resulted from a short planning phase, during which few of the differences in perceptions were addressed or reconciled, followed by an interminable implementation phase! Table 2 contains a summary of some of the particular key issues that need to be addressed in relation to ES.

TABLE 2 Key issues in ES implementation.

-
- To succeed business models will have to change and so will business and organizational relationships
 - It is the business changes enabled by the ES application that produce the major, and lasting business benefits
 - There must be explicitly identified benefits both to the corporation and to most, if not all, the units/functions involved, to enable the business changes to be made - *but* implementing a ES system will rarely deliver sufficient immediate benefits to justify the cost and effort. Exploiting the new capability will deliver further benefits
 - Corporate IT initiatives are often distrusted by the business units or functions due to increasing control and loss of autonomy
 - The technology is rarely the cause of failure, it is normally the result of organizational issues being unresolved or a poor implementation process
 - Poorly defined or ineffectively communicated business vision and strategy will reduce the ES project to a technology project only, owned by the IT function!
 - Most organizations realize (after the event!) that more resources and expertise should have been devolved to change management.
-

Plotting the ROI curve

Achieving success with ES is a journey. The benefits do not come all at once when the system goes “live” – we have already noted that performances often dips in the early days and months. The nature of the benefits available will vary over the life of the project. For example, our analysis indicates that the ROI curve for CRM shows little return in the early days of the investment. However, over a period of several years, through increasing customer insight and improving relationships, the payback can be significant. We recommend that this curve should be considered in putting together any investment proposal for CRM.

Figure 7 illustrates the generic profile of the curve – it will vary from organization to organization, influenced not least because of their differing starting position. In the early days and months of the program, benefits are likely to be as a result of solving current problems, generally improving efficiencies and improving information quality. For example, in one of the insurance company we studied, mobile sales agents were an important distribution channel but were acting as an information sieve. The sales agents, who had direct access to a rich source of customer details, neglected

to communicate much of this information to head-quarters, call center and other back-office functions. A promise from them to deliver more information on a product or fresh leads generated while out with a client were often forgotten as there was not a mechanism in place to capture and route this information to appropriate departments. However, through the implementation of sales force automation, the sales force could share information with others in the organization, solving a problem that had plagued them. They have now created a revised vision for CRM that is more innovation based and focusing more on the customer rather than on solving an organizational problem.

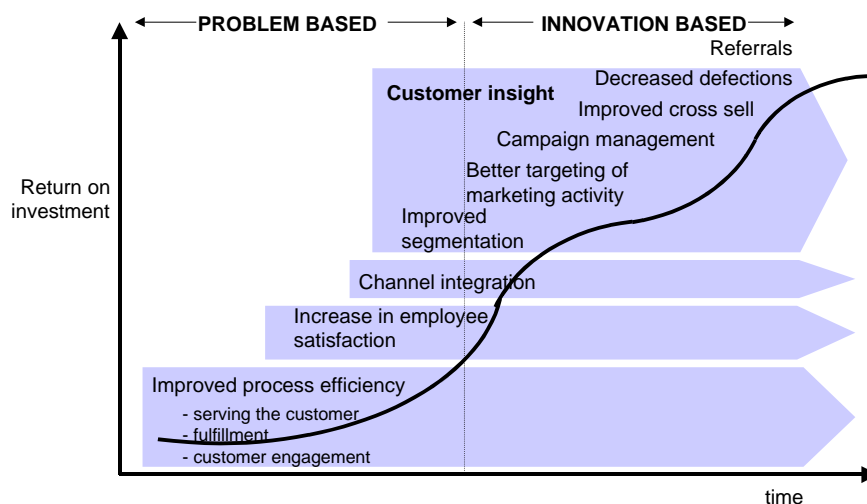


Figure 7 The return on investment curve: an example from CRM.

Once current problems have been addressed, innovation based activity can be undertaken and these can result in significant returns. For example, with improvements in customer information, market segmentation can be improved, propensity to purchasing modeling undertaken and marketing activity more focused. One UK bank saw its response rates for campaigns increase from 2% to more than 40% - but this was 3 years after it first begun its CRM initiative. It put this down to greater customer insight.

These arguments call into question the figures that are continually thrown around regarding the failure rate of CRM. For example, industry analysts Gartner calculate that 65% of CRM projects failed in 2001.¹⁷ In assessing such findings it is important to consider the timeframe over which the so-called “failed” projects are being assessed. It might just be that within a short time-scale that the expected benefits were not delivered – from the arguments above, the question is how could they be!

One particular life assurance company assessed its CRM implementation to be a moderate success when it first introduced it five years ago, and indeed at one stage considered replacing it. A post-implementation ROI analysis indicated that the investment was showing little return compared to the figures in the investment proposal. Recently, however, they were voted best company to deal with in a countrywide survey of brokers, its principal channel to market. Income has increased threefold over the last two years and the level of expense to service this business has also reduced dramatically. Further evidence is provided by the Britannia Building Society, who in 2002 scooped an award for best CRM implementation in financial services. While it is now receiving accolades, the Society in fact begun its CRM initiative back in 1995!

Realizing business benefits: a journey not a destination

We would be the first to admit that the unlocking of business value from IT is not rocket science. The process we have presented often leads managers to describe it as “common sense”. Yet, how many organizations do actively manage for benefits? Our research suggests that less than 10% of the largest UK companies actually have a formal benefits management process and anecdotal evidence would suggest that similar figures are to be found among European and US companies.¹⁸

Returning to the issues faced by the bank, as outlined in the beginning of this paper, they should recognize that CRM is a long-term investment in both business and technical terms. It is not only about building a knowledge base for the organization to exploit. It is also about building a listening and responding mechanism and providing some of the value of that information to the customer. Often, its success depends on customers changing their behaviors. In short, expecting a quick payback is inconsistent with the requirements necessary for successfully building relationships with customers. The investment must therefore be assessed in this light. In addition, organizations must continually work to achieve benefits and this requires the active involvement of business management. It may also be that conventional approaches to

calculating ROI are inappropriate in expressing expected returns and providing the justification for investments in IT, but that's another issue altogether.

Appendix 1: About the Research

This paper is based on three related research projects conducted at the Information Systems Research Centre at Cranfield School of Management.

The first is a longitudinal study that has explored how organizations can unlock business benefits and value from their investments in IT. The researchers worked with companies including Alliance & Leicester, Zeneca (now AstraZeneca), NatWest Bank, Glaxo (now GlaxoSmithKline), British Energy, and BT. The key findings of the study can be found in John Ward and Joe Peppard, *Strategic Planning for Information Systems*, 3rd Edition, John Wiley and Sons, Chichester, 2002.

The second is a study of CRM projects in a variety of different organizations. Case studies were undertaken in 15 companies: Canada Life, Orange, Derbyshire Building Society, Britannia Building Society, NatWest Bank, Friends First, Homebase, Reaal Particulier, RS Components, Siemens, Nortel Networks, Sears, Roebuck and Company, Aserta Homes, Wesleyan Assurance Society, and Sun Microsystems. The findings of this study have been published in Simon Knox, Stan Maklan, Adrian Payne, Joe Peppard and Lynette Ryals, *Customer Relationship Management: Marketplace Perspectives* (Butterworth-Heinemann, London, November 2002).

The third project is a study of the particular change and organizational issues associated with the successful deployment of enterprise systems. The scope of the project included all types of enterprise wide systems. In-depth case studies were undertaken in AstraZeneca, Qinetiq (formerly Defense Establishment Research Agency), Microsoft, GlaxoSmithKline, Electrocomponents, British Telecom, and Shell.

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