Idea Management Systems: Build Versus Buy

By Mark Turrell

1. Introduction

Idea management is rapidly becoming an accepted, proven tool for businesses to improve the rate of innovation and generate top-line revenue growth and bottom-line cost reduction. Advances in technology and the spread of computers, mean that idea management systems are able to do a lot more than the classic suggestion box, tapping into a huge pool of idea contributors, such as employees, suppliers and business customers [1]. Ultimately this enhances the number and quality of ideas in the innovation pipeline, for process improvements, cost reductions or new product development.

Whilst there is an established process and method for manual suggestion boxes - the classic 'box with a hole' – we are only now seeing emergent standards for software-based idea management. Prior to the 1990s, the majority of systems were physical suggestion boxes made of wood, plastic or metal. The advent of corporate intranets meant that the process could be de-materialized. Companies turned to electronic 'idea boxes' to make the up-front process of idea collection more efficient, and these systems were often built by in-house IT departments. The emergence of specialized commercial software though is relatively recent. In 1999, just 10% of firms used software from a specialized idea management vendor, compared to 66% with custom-built systems[2].

The ever-changing business environment has placed increasing importance on innovation as a driver of business growth. This has encouraged a number of software vendors, such as Imaginatik, to enter the market for idea management software. As the market becomes more mature, it is likely that idea management will follow a similar trend to other types of corporate software, and companies will change their preference from in-house to off-the-shelf.

In the meantime, companies embarking on projects today face a choice on how they execute their plans to implement idea management. In this paper we shall explore the decision of 'Build versus Buy': should companies develop their own software in-house, or should they purchase software from a specialized vendor.

[1] WP-0802-1 "Idea Management and the Suggestion Box", Turrell, M. C., Imaginatik Research (August 2002).

[2] Source: Employee Involvement Association, EIA Statistical Report (2000).

2. Understanding the Requirements

It is relatively straightforward to build a basic idea management application. The front-end of the application – what the user sees – is superficially quite simple:

- A web page to promote the initiative and provide guidance on the submission process
- A form to collect ideas, including author name, and some form of categorization for the idea
- A view to provide access to everyone's ideas
- A view for contributors to check on the status of their ideas
- A method of searching ideas

The back-end of the application, managing the review and selection process, and the administration of the system, requires more effort. At the most basic level the requirements include:

- A form to collect opinions and / or scores from reviewers and evaluators
- A method of providing feedback to idea contributors, typically by e-mail
- A method of rewarding participants for their contributions
- E-mail reminders for reviewers to let them know there are new ideas for them to evaluate
- A reporting tool to demonstrate the success of the system

The majority of companies start with the relatively easy task of idea collection, the front-end of the process. Many corporate intranets already contain an electronic suggestion box and it is frequently cited as one of the most popular intranet applications[3]. However, most suggestion programs lack a back-end process. Although this is a necessary and

[3] A 1999 Business Week Europe study showed that 61% of employees thought that a suggestion program was the most important application for a corporate intranet.

logical part of an idea management system, it is much more difficult to build and is therefore usually omitted from initial development efforts.

Companies can 'survive' with a minimal system so long as:

- Management has low expectations of the output (i.e. "No good ideas come from the system, so who cares")
- The team running the system lowers the expectations of contributors and reviewers (i.e. "No one in management is interested in doing anything with the ideas, so don't get your hopes up")

However, if management becomes more receptive to the innovation imperative, and users do get their hopes up, a basic system is quickly overwhelmed, leading to demand for major improvements.

> A well-known credit card firm implemented a simple web-based application to collect ideas from their 3,000 person workforce. In the first four months they collected over 100 ideas – considered a great success for the organization. However, the ideas were unfocused making them difficult to review, and the lack of back-end review tools meant that almost none of the ideas had been formally reviewed in the four-month period. The first signs of dissent were beginning to show as contributors waited to hear what was happening to their ideas…

3. The Build Decision: In-House Development

Typically, there are some standard considerations for companies who are deciding whether to build or buy any software application, considerations such as cost, control, and knowledge of internal processes. For idea management, additional factors include:

Ability to customize	Companies wish to develop solutions that fit their specific needs, today and into the future.
Control over the development process	Some companies wish to have more control over the functionality of the application and the underlying business process, both from a business and IT development perspective.

Fear of lock-in — Some companies are reluctant to be 'trapped' into a vendor's development path, especially if the customer's needs develop over time.

Ease of getting started — In many cases it is relatively easy to build a basic suggestion program that meets the current identified business requirements, although the system is unlikely to be able to keep up over time.

Cost savings — In-house development teams often have a cost advantage as they may be charged at cost, or even at no internal cost for the department sponsoring the project. In-house teams also do not have to write manuals, support multiple IT environments, or conduct extensive end user testing, thus reducing the development cost significantly.

For each of these advantages, there are drawbacks, such as:

Poorly designed systems — Systems are often developed without any thought to future needs, and often build in constraints that make later developments prohibitively expensive.

Poor results — Research has shown that the vast majority of in-house systems are poorly used. The primary reason is lack of consideration by in-house staff for the critical people and management issues. This is extremely important as idea management is primarily a people process supported by technology, and a pure systems approach rarely yields good participation rates, and often produces few tangible results.

A global consumer goods company designed and built an in-house prototype system to collect front-end ideas for their idea management process. There were three competing views on the design of the system, and to prevent arguments they settled on one style of functionality, focusing on marketing, under the promise that the other needs would be incorporated at a later date. The pilot phase of the system worked well enough for people to think that it was a success, but the pilot application lacked functional richness and contained significant design flaws. The company embarked on another in-house project to rebuild the system, planning to spend many man months and delaying the launch of the project by more than one year.

Cost is often perceived as the major advantage of in-house development. The PDMA Toolbook recommends that companies should expect to spend $75,000 to $300,000 for the IT component of a workable system[4]. Whilst basic applications may be developed for less, most in-house systems lack the features necessary to make a successful, workable idea management system, such as a structured review process.

The build cost of the system plays an important role in the up-front decision, but there are a number of aspects that should be taken into account when determining the real long-term costs:

Cost of Functional Design

IT departments do not have the business skills nor the research tools to accurately determine the functional requirements of the solution, thus they can not cater for the end users' business needs. The failure to satisfy initial and long-term business needs, often necessitates significant rework, and in extreme cases building a completely new system.

Cost of improvements

Over time, business users understand and clarify their needs, leading to a demand for new and more complex functionality. No one expects IT departments to be experts in the idea management processes, which makes it difficult for them to envisage future requirements, and estimate the real time required to build and support the application. However, companies still need to anticipate the incremental cost of adding

[4] The PDMA ToolBook for New Product Development: Expert Techniques and Effective Practices in Product Development, 1st edition (March 2002), John Wiley & Sons.

functionality, and potentially having to re-build the entire system.

Administrative overhead

Most in-house systems lack automatic workflow capabilities. Systems without e-mail workflow create a need for manual processes to handle contributor feedback and reviewer task management. These manual processes are extremely time-intensive. It is quite normal for companies to deal with this by employing full-time administrators for their program at significant cost[5].

Unmanageable review process

In-house systems tend to provide little support for the review process. In the worst case, all ideas are managed through e-mail, leading to chains of e-mail comments that are completely unmanageable.

A financial services firm took four months to design and build a system to collect business improvement ideas. The system was launched by a mid-level innovation team with great fanfare, but without top level support. A process was established to review ideas and 'pass them on' to the right executives for action. However, the lack of top level support meant that the ideas effectively became orphaned in the company, and the company began to enter the vicious cycle of idea generation (i.e. the first participants eagerly submit their ideas, few ideas are reviewed, there is no feedback, nothing happens anyway, people find out and contribute fewer ideas, leading to an eventual demise of the system). The innovation team determined that 'lack of executive support' was the only reason for failure and decided to address that specific problem before relaunch. In fact many aspects of their overall approach, and the system they had built to manage the process, contained fundamental flaws (such as a poorly thought-through reward policy), and the ongoing over-focus on a single problem meant that the project was perpetually considered a failure.

[5] By 2001, the American Airlines idea program, 'IdeAAs in Action', employed over 100 people to collect, evaluate and manage the ideas from their suggestion program.

4. Common Failings of In-House Idea Management Systems

In addition to the cost and customization implications, there are a number of performance problems with in-house systems, due primarily to the lack of knowledge and expertise with the subject area. Common problems include:

Low participation rate

The system does not attract enough people to make contributions, limiting the talent pool and the scope of the ideas.

Lack of focus

Ideas are collected on any topic, making them hard to evaluate and effectively creating 'idea orphans' – ideas without a home.

Low quality ideas

It is always a challenge to attract high quality submissions. However, the amateur nature of many systems, lacking in features such as identity control and idea building, means that in-house systems rarely produce a high yield of top quality ideas.

No idea building

Many systems are built to allow idea input but not idea building. As idea building is a major factor in improving the quality of ideas, this lack of functionality limits the success of the entire project.

No review process

The majority of in-house systems lack a structured review process. A robust evaluation process is essential to idea management, and applications that lack such a feature tend to produce negligible results.

High administrative overhead

Companies who wish to properly communicate with their workforce find that they need to employ administrators to send out e-mails and manage the follow up with contributors. This is time consuming, costly, adds time delays to the process, and increases the likelihood of human error (i.e. "Oops, we sent a 'winner' e-mail to someone who got fifth place").

Raised expectations

The mere launch of a new system raises people's expectations that they are going to be taken seriously. The lack of follow-through can be extremely damaging for morale.[6]

No management support

In-house systems are often built as the result of mid-level initiatives. Sometimes they appear as an add-on to a technology-driven portal project, usually with no business involvement in any way.

Major implementation misjudgments

Companies who lack experience in this area risk serious failure through mistaken choices in implementation, albeit through the best of intent. Mistakes are made in the reward process, internal marketing, the selection of reviewers, and the positioning of the approach. These mistakes are avoidable through the use of specialist knowledge.

> A major oil company launched a six-week event to collect focused ideas within one of their overseas divisions. The event was jointly organized by an innovation manager and a local PR agency, which developed a marketing campaign to support the initiative. The program offered awards up to $1,000 for the top idea – a huge amount for that particular country – in a 'winner takes all' approach. The company received almost 100 ideas during the period, including a number of excellent ideas. The problems arose later in trying to replicate the event. The previous prize was so valuable that it was hard to motivate employees for events that offered lower prizes, thereby causing a huge motivational problem.

Many of these issues can be solved through the use of an outside vendor with specialist expertise in the area. This does not guarantee success as idea management is a complex human process. However, the use of outside experts significantly increases the likelihood of success.

[6] Employee Surveys share the same problem as morale tends to decline noticeably if there is no obvious action following a survey.

5. The Buy Decision: Software Vendors

There are two main alternatives when investigating vendors. Some vendors, such as Imaginatik, are specialists in the area of idea management, both the software and the business method, and as such provide specialized software that can ideally be configured to a client's needs. Another approach is to use a more generic software package, such as a discussion forum or community of practice application, and adapt the system to the needs of idea management.

The advantage of the **specialized approach** is that the software, and in some cases the implementation methodology, is designed to solve some of the unique problems associated with idea generation and evaluation. The disadvantages may be that the software vendor is new to the client's organization and therefore needs time to establish trust and credibility. Occasionally an idea management vendor may enforce an approach that is ill-suited to the company's culture and desired way of working.

The advantage of the **adapt approach** is that the software may already be in use inside the company and so the cost of additional licenses may be zero. End users may have been trained on the application, thus making it easier to deploy. On the other hand, a generalized tool is unlikely to solve the specific problems of idea management, particularly for idea evaluation and the associated administrative workflows, and addressing these issues may require costly upgrades, or may not be possible with the vendor software.

6. The Decision Point

There are two principal decision points for companies embarking on an idea management:

1. Proof of Concept

2. Enhance and Extend

Initially a company may wish to pilot a system to prove the approach. This first step is considered the **Proof of Concept** decision point. Many companies build their prototype systems in-house, although this is not always the best idea. Unfortunately companies lack expertise in the process and this can lead to poorly designed systems, and badly implemented programs. It is not uncommon for these pilots to fail, with the company

halting further development, and the primary reason for this is lack of knowledge, rather than any inherent weaknesses in the company's culture or management style. Some vendors, such as Imaginatik, have tried to address this issue by providing a number of attractive options to facilitate trials[7].

The next step is the **Enhance and Extend** decision point. The company has decided to invest in improving the existing approach and system following a successful pilot, or as the result of a strategic decision to go ahead with a major system without conducting a pilot. Almost all companies use outside advice at this point to assess their current performance and suggest next steps.

At this point there are a number of important questions that must be addressed:

- Will the requirements grow over time and can the internal project team anticipate the direction they will take?
- How long will it take to deliver the application and how soon is it expected in the business?
- What technical hurdles exist that may not have been initially foreseen?
- Does the organization have the right process for collecting and managing ideas?
- Will people actually use the system once it is launched?
- What non-technical work is needed to make the project a success?

The project team gathers user needs from various stakeholders, such as management, reviewers, administrators and potential idea contributors. This information is used to develop a specification for a system, which can be given to in-house IT or an outsourced contractor to evaluate costs, or be used as the basis for a Request for Proposal (RFP) from software vendors.

[7] See the Idea Central Event Package information at www.imaginatik.com for details on the event-based approach to licensing the software.

The build versus buy decision can then be made on a number of factors, including:

Up-front cost	The cost of purchasing a system, even including paying for customizations, may be less than in-house development as the vendor usually defrays their development cost over many installations.
Speed to deliver	Working software can be installed and in use within days or weeks, compared to many months for bespoke software. Companies with demanding project deadlines are almost always forced to go with a 'buy' decision.
Rapid response	In-house resources are often subject to multiple and conflicting demands, and therefore there is a need to prioritize the workload. An in-house team may have resources to build the initial version of an application, but are frequently unable to commit to working on a revised version. The best software vendors make it their business to be responsive to customer needs.
Quality software	Software with bugs can damage the success of an implementation as users see the bugs rather than the overall goal of the software. Moreover, as web browser software changes over time, the development team needs to invest a significant effort to maintain the application. Companies must ensure that, whichever method they choose, they deliver high quality, working software to their end users.
High quality user interface	The user interface impacts how people use the system and get most from the application. Poorly thought-through applications, in terms of functionality and user interface design, can negatively impact an implementation. Specialist software vendors usually have more experience in this area.

Aligning process with software	Successful idea management projects align leadership, culture and process[8]. The approach of building an application in-house still leaves the company with a need for consulting and methodology development to run a project. Some vendors, like Imaginatik, have developed software and processes that have proved successful in many companies, giving the client a head-start and reducing the risk of failure.
Project risk	An expert vendor is more likely to understand the inherent risks in idea management projects and help the client steer away from them. In-house teams usually lack this knowledge, thereby increasing the risk of failure.
Best practice	Specialized software vendors gain insight from multiple implementations. This knowledge is not available to an in-house team who may end up with a sub-optimal process, though built with the best of intent.
Future needs	As idea management is an emergent business area, there is no clear roadmap defining current and future needs. A specialized software vendor has an interest in pushing the boundaries of knowledge, and the best firms proactively incorporate experience into their software and business methods. An in-house team lacks the experience base and is frequently reactive to growing user demands.

7. Conclusion

As awareness grows of the benefits of idea management, more and more companies are planning to implement a system, and are therefore faced with a decision whether to design and build a system in-house, or to purchase commercially available software. The main decision points are 'Proof of Concept', and 'Enhance and Extend'. Whilst there may be some up-front cost advantages for in-house development, mainly in the pilot stage, there are a number of significant of risks, such as poor performance and lack of best practice knowledge.

[8] Source: PricewaterhouseCoopers Innovation Survey 2001.

Over time, companies who understand the true nature and scope of idea management are most likely to purchase commercial software, working with specialist vendors who ideally offer versatile methodologies, which in turn incorporate best practice. This pattern is in line with industry trends to purchase commercial software with little customization, rather than building and supporting bespoke systems.

Idea management offers tremendous potential for business success and, with thought and due diligence, companies can produce rapid, tangible return on investment from these systems. It is in everyone's interest that idea management works for a corporation, from the executive sponsor to the individual contributor.

8. Contact Details

For more information on this topic, and for information on Imaginatik's Idea Management products, please visit the Imaginatik web site at www.imaginatik.com or contact:

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