Enterprise Idea Management
for Industrial Business

Ilie Taucean[1], Matei Tamasila[1]

Abstract **This paper analyses idea management (IM) concept, reviewing idea management systems related to business-to-business type. A good idea management system should improve innovation process in enterprise. The paper looks at the history, benefits of IM, and at an idea manager role.**
Keywords **- Idea Management, Business-to-business, Knowledge Management, Innovation.**

I. INTRODUCTION

Idea Management is a disciplined approach to generate, capture, and analyze ideas within an organization [5]. For a company with a culture that values creativity and encourage employee participation, a formal idea management process should improve a company's ability to innovate, and especially to maintain a steady flow of innovation.

II. ENTERPRISE IDEA MANAGEMENT SYSTEM

Today, more than ever, innovation is critical to competitiveness. Most enterprises have great innovative potential: their own human resources. It is simply a matter of creating an environment conducive to ideas and implementing a structured idea management system to collect and manage ideas [4].

Idea management is the practice of gathering and evaluating ideas in a structured fashion, with a goal of selecting the best ideas with the greatest bottom-line potential for implementation that lead to innovation.

Many companies have begun to implement partial idea management initiatives, often based on brainstorming sessions, e-mails and regular innovation meetings. This is a step in the right direction, but to really maximize innovation potential, a proper, structured enterprise idea management system is necessary.
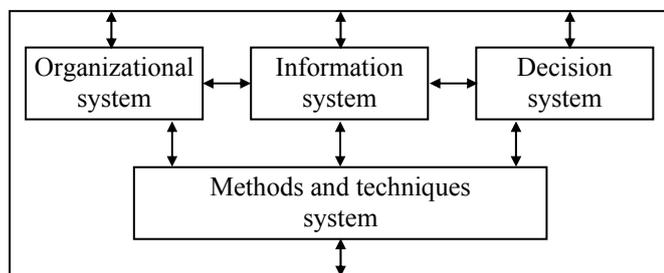

Fig. 1. Idea Management System

[1]Ilie Taucean and Matei Tamasila is with the Faculty of Management in Production and Transportation, Department of Management, "Politehnica" University of Timisoara, 2, Piata Victoriei, Romania

Management system is classically composed from the following subsystems as seen in fig. 1 [7]: organizational, informational, decisional and methodological (methods and techniques for management). In an idea management system, all these systems process ideas and implement them, leading to innovation, improving and development.

In idea management system, the organizational subsystem should organize all the means by which ideas are collected and distributed.

Informational system deal with all information and ideas that should be collected, processed, stored and distributed. Decision system is constituted from all decisions regarding ideas that are evaluated based on specific methods and techniques from methodological system.

It is known that management functions are classically the following five [7]: prevision (or planning), organize, decision, coordination and control. An idea manager should manage using these functions inter-correlated (Fig. 2).
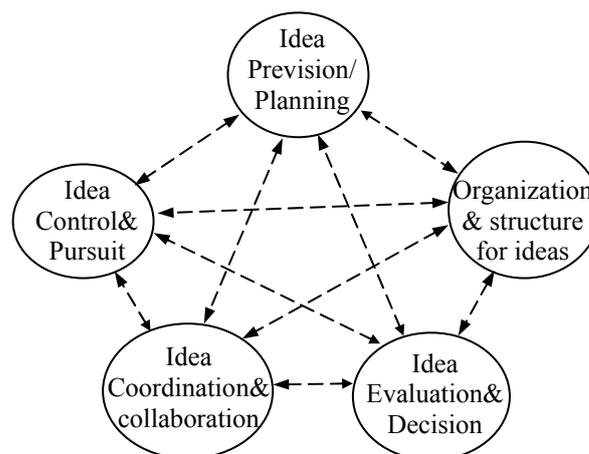

Fig. 2. Idea Management Functions

III. INTEGRATED IDEA MANAGEMENT SYSTEM

Sometimes great ideas appear at once and in different units of an enterprise. But more often they are the result of collaboration. However, if the enterprise has an idea management system that permits collaboration on ideas, discussion can take place before the idea is implemented. As a result, the idea is more likely to be effectively implemented from the beginning.

Enterprise idea management, which allows enterprise-wide idea contribution and collaboration, maximizes the number and quality of ideas an enterprise can expect.

Of course customers certainly have ideas about how businesses can serve them better and, as business partners become more integrated, they too have ideas. In many cases, it can be extremely effective to get customers and partners involved in the idea development process.

Business-to-business or "B2B" is a term commonly used to describe the transaction of goods, services and/or information between businesses. It is a term that originated in electronic commerce and usually takes the form of automated processes between trading partners. It is typically performed in much higher volumes than in business to individual consumers (B2C) transactions, is generally considered to be more complex, as there is often more than one decision-maker involved. The term can also mean all transactions made in an industry value chain before the finished product is sold to the end-consumer for final consumption.

Business to Business markets refer to large platforms that facilitate interaction, collaboration and/or transactions between buyers and suppliers at organizational or institutional rather than individual levels.

So for B2B involvement, Idea Management system must be simple and must combine the best aspects of creativity, brainstorming, and collaboration.

Any idea management system must have a means of evaluating ideas, to determine whether or not they would meet the enterprise's specific needs. This is the process of idea management: vision, client, assignment, information, strategy, creative brief, idea finding, description, evaluation, presentation, idea protection, production [3].
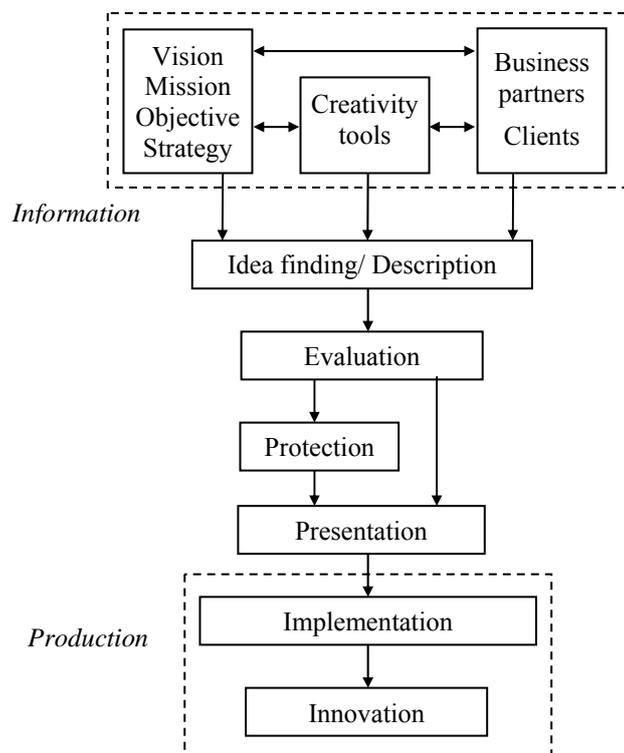

Fig. 3. Idea Management Process

Actually, evaluation should be a two part process. The first part should be a structured evaluation comparing an idea to a set of criteria that reflects the enterprise's needs for the particular idea.

Determining how well the idea meets these criteria is a very good indicator of the value the idea will add to the firm.

For ideas which will affect strategic decision, it should take into account a strategic analysis. Alternatively other traditional evaluation methods, such as market surveys, preparation of a business case, cost-benefit analysis.

IV. HISTORY OF IDEA MANAGEMENT

The concept of "Idea Management" was created in 1974 by the Austrian Engineer Siegfried Spahl who at that time was Suggestions Manager at Semperit AG Wien [8].

There were some generations of idea management forms in history [6] as it presented in table 1.

TABLE 1
GENERATIONS OF IDEA MANAGEMENT

No.	Generation	Forms	Period
1	**Zero**	Suggestion box	→ 1995
2	**One**	Web-based suggestion box	1995 - 2000
3	**Two**	Automated review process	2000 - 2003
4	**Three**	IM process incorporating creativity tools	2003 →

A. Generation Zero

The suggestion box was aimed primarily at cost savings, and was a passive system that collected ideas (often complaints), which were occasionally reviewed by a committee. While suggestion systems were often successful initially, most eventually fell into disuse through apathy or the fact that submitters often received no feedback on their ideas and therefore stopped providing them. Most of these systems were paper-based and unwieldy.

B. Generation One

Companies recognized the value of using the Internet to post a suggestion form that could be modified from time-to-time and tied into a database. Most of these systems were home-built by IT departments with no understanding of what was needed for long-term success.

While suggestion technology took a leap with the web form, the other problems remained. Complaints were frequent, review and feedback were slow or non-existent, and many of the ideas were inconsequential.

C. Generation Two

By the late 1990s, employee involvement groups and human resource departments began looking for an automated suggestion process. Some tried to do it themselves, with varying success. Several fledgling software companies took up the challenge. Over the next several years, companies introduced software that overcame some of the problems of the suggestion box and web form.

The idea campaign was born (also called event, challenge, or drive). An automated review process was established.

Rewards were added. And most importantly, through email, immediate feedback to the idea submitter was available.

Most of these second-generation systems were developed specifically for cost savings and process improvement.

Along the way, however, Idea Management became increasingly complex and difficult to use.

D. Generation Three

Generation Two was all too often a complex technology solution, not a people solution. If people do not submit ideas, cannot understand how to input an idea and collaborate on it, do not submit well-thought-out ideas, or if they submit ideas, then stop, technology alone is not going to resolve those problems.

The solution was seen by companies that developed software for brainstorming. Here, creativity drove technology, rather than the other way around. Brainstorming and other creative processes make people think, and people that think develop more and better ideas.

Creativity companies saw an opportunity, and sought out a new Idea Management process incorporating creativity tools, and Generation Three became a reality. The goals of Generation Three are to increase employee participation by helping them become creative.

Because today's idea management systems are powered by databases, setting up and managing a closed-loop evaluation process is much easier to set up and manage.

There are also idea banks (I-Banks) that not only helps companies to capture, evaluate and manage ideas, it also helps users to generate larger quantities of high quality ideas for the innovation process. An ideas bank is a platform where people post, exchange, discuss, and polish new ideas. Many corporations have installed internal ideas banks to gather the input from their employees. Some ideas banks employ a voting system to estimate an idea's value. The theory of an ideas bank is that if a large group of people collaborate on a project or the development of an idea, it will reach perfection.

V. Knowledge management

Idea management systems share some common roots with knowledge management systems - web-based technologies that help organizations to capture, share and leverage their collective knowledge, expertise and wisdom. But many companies that have implemented knowledge management systems are finding it hard to measure their bottom-line impact.

Because they track ideas from inception to implementation, idea management systems make it much easier to track key metrics, including the percentage of ideas submitted vs. those that have been implemented, and the estimated cost savings or new revenues generated by ideas that the company has implemented.

Knowledge Management (KM) comprises a range of practices used by organizations to identify, create, represent, and distribute knowledge for reuse, awareness and learning [2]. It has been an established discipline since 1995 with a body of university courses and both professional and academic journals dedicated to it. Most large companies have resources dedicated to Knowledge Management, often as a part of Information Technology or Human Resource Management departments, and sometimes reporting directly to the head of the organization.

Knowledge Management programs are intended to achieve specific outcomes, such as shared intelligence, improved performance, competitive advantage, or higher levels of innovation.

One aspect of Knowledge Management, knowledge transfer, has always existed in one form or another (apprenticeship, training and mentoring programs, and more actual expert systems, help desks, corporate intranets and extranets, Document Management).

The emergence of Knowledge Management has also generated new roles and responsibilities in organizations, an early example of which was the Chief Knowledge Officer. In recent years, Personal knowledge management (PKM) practice has arisen in which individuals apply KM practice to themselves, their roles and their career development [2].

Knowledge mapping is commonly used to cover functions such as a knowledge audit, a network survey (mapping the relationships between communities involved in knowledge creation and sharing) and creating a map of the relationship of knowledge assets to core business process.

A mind map [1] is a diagram used to represent words, ideas, tasks or other items linked to and arranged radially around a central key word or idea. It is used to generate, visualize, structure and classify ideas, and as an aid in study, organization, problem solving, decision making. The mind map continues to be used in various forms, and for various applications including planning and in engineering diagramming.

VI. Features of idea management systems

The leading idea management systems typically offer these features and capabilities [4]:

Campaign focused: Organizations can set up specific "campaigns" or projects within the software, each one tailored to address a specific business objective – such as reducing costs in a division, or coming up with new ideas for a particular product line. Focused ideation around specific business objectives tends to result in a larger number of high quality ideas.

Customizable forms for capturing ideas: Organizations can customize idea input forms by campaign or project to meet their specific needs.

Customizable evaluation criteria: Leading idea management systems also enable companies to create customized numeric scales for evaluating ideas for each campaign. This increases the likelihood that all ideas will be rated consistently.

Powerful evaluation workflow processes: Idea management systems typically have workflow processes set up to ensure that all ideas are reviewed and evaluated promptly by a team of evaluators; automated workflow "checks and balances" can be set up to remind evaluators at pre-set intervals of any ideas that they have not reviewed yet.

Collaboration and idea sharing: The IM systems make it possible for employees to view the disposition of their own

ideas, as well as add comments to others' ideas, using peer review processes that help to shape raw ideas into more complete, compelling solutions.

Regardless of their features, all idea management systems share one common goal: To quickly locate the veritable "killer" ideas, to shepherd them through evaluation and onto implementation. Speed to market is critical to building competitive advantage.

VII. BENEFITS OF IDEA MANAGEMENT SYSTEMS

Idea management tools offer a number of compelling benefits to companies of all sizes [2]:

They focus employees' creative efforts around specific organizational goals and objectives. So, the quantity and quality of ideas tends to increase significantly.

They encourage employees to capture all of their ideas. Employees can quickly jot down the germ of an idea, and then return to the system later to add details to their new creation. In addition, many idea management tools help employees to share ideas, comment on, add to and further improve each others ideas, and acquire knowledge by viewing others' ideas.

Idea management systems collect ideas from all areas of the organization, not just specialized departments like R&D and marketing.

By placing ideas in a shared repository, idea management systems promote greater transparency. Employees can see the outcome of all of the ideas they have submitted, which increases their enthusiasm for and participation in idea campaigns. Also, these database-driven tools make it easier to measure how much each implemented idea has contributed to the firm's bottom line. This makes it easier, in turn, to reward employees who have contributed winning ideas.

Idea management systems help companies to share best practices. For companies that have multiple offices or locations, idea management systems enable them to quickly and cost-effectively share ideas and best practices that have been used successfully at one location with other locations.

They help companies to increase their speed to market. Idea management systems help companies to capitalize on their best ideas faster. They do so by providing a structured process for evaluating ideas and selecting the best for implementation, and by providing a set of checks and balances to make sure the all ideas are promptly reviewed and evaluated.

They can be used in many types of common corporate applications. Idea management systems not only provide a valuable toolset for developing new product and service ideas, but can also catalyze greater results from corporate cost-reduction initiatives. You can also invite outside partners, such as suppliers, dealers and joint venture partners, to contribute ideas on a secure extranet site.

There are also the following specific benefits [5]:

Strategic benefits: gain a competitive advantage, improve service and product quality, strengthen customer relationships.

Cost Reduction Benefits: eliminate inefficiencies, save resources, money and time, improve productivity.

Revenue generating benefits: develop new products and services, enhance existing products and services, increase sales resulting in top line growth.
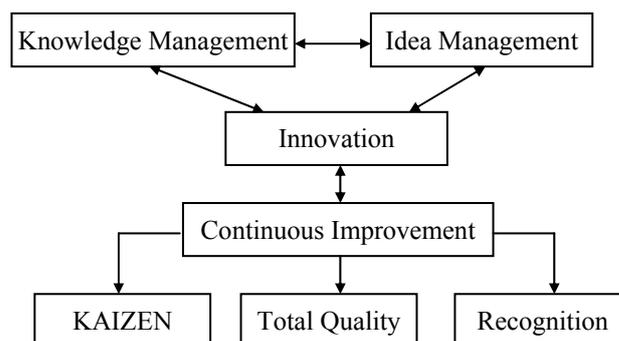

Fig. 4. Idea and Knowledge Management

VIII. CONCLUSION

Idea management systems enable managers to measure the bottom-line impact of ideas collected and implemented, making it easier than ever before to determine the "return on ideas" that these idea management systems provide. Because they are Web-based, they enable organizations to gather, share and evaluate ideas with a speed and flexibility never before possible.

Idea Management system must be simple, yet thorough, and must combine the best aspects of creativity, brainstorming, and collaboration. It should improve innovation process in enterprise by improving processes, generating revenue and/or cut costs. Also idea management is considering alternately as a subset of knowledge management (KM), but it seems that it comes to validate and rescue KM.

There are many benefits of idea management, and idea manager should take his deserved place in organization chart.

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