

EMGT 835 FIELD PROJECT:
Implementing an Employee Involvement Program
Through an Innovation Competition

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Abstract

In the entrepreneurial and corporate world of the twenty-first century, globalization has forced organizations to find ways to stay at the competitive edge by becoming more solid and strong. Organizations must understand that being globally recognized is not limited to standard logos and uniformity of corporate practices around the world. To stay competitive, the organization must be dynamic in getting into new markets, developing new products, processes or services and improving existent ones. It is on these areas that it must be especially innovative to get advantage over its competitors. Moving in this direction, many organizations have recognized that the clue to innovation is employee involvement; an involvement that translates into assertive corporate decisions, new products, services and is not limited to exclusive groups in R&D.

This paper intends to design an employee involvement program in the form of an employee idea competition with the intention of being implemented in an actual worksite. The model pursues to take employee involvement a step further from the traditional employee suggestion boxes, requiring employees not only to come forward with ideas but also to defend and demonstrate their feasibility. Beyond increased bottom-line employee involvement, the program also creates an atmosphere of involvement among interdisciplinary groups in management who will be in charge of evaluating and approving ideas. The design of such program is preceded by a literature overview of the reasons for supporting employee involvement programs, the main requirements for sustaining them and of the different forms of employee involvement used by organizations.

1. Introduction

In today's entrepreneurial world, innovation is increasingly becoming a current trend among companies in an equally rising worldwide competition for survival. Having exploited Total Quality Management (TQM), Six Sigma, and other value-enhancing trends that boomed throughout the 1980's and 1990's, globalization and the increased exposure to other markets and geographical regions through company mergers and acquisitions, has forced organizations around the world to turn to new ways of enhancing their value. Faced with this situation, both organizations and management literature, are increasingly acknowledging the need to turn to human capital as the source for sustained growth and competitiveness.

Stepping away from the once popular approaches of the aforementioned TQM and Six Sigma, organizations are migrating to "bottom-line" growth approaches like innovation management as a way to guarantee corporate survival. However, this search for innovation is not only limited to the traditional R&D efforts for new product developments. This quest for innovation is rather organization-wide. It goes all the way down to the individual contributor. It pursues innovation in any way possible, from new product development, to every-day cost saving ideas that, in turn, result in increased revenues for the organization and, most important of all, increased value in the public eye.

Despite the wide recognition of the need for a systematic approach to innovation management, it is surprising that only a fraction of organizations worldwide are actually using such an approach for guaranteed success. Somehow, it is still difficult for organizations to move away from the traditional "top-down" approaches, where strategies

are communicated and pursued throughout the organizational chain of command with little room for modifications or improvements, especially coming from lower hierarchical positions.

Innovation management is the main subject of this paper. The focus will be in the implementation of an innovation management program in an actual organization in the form of an employee idea competition as a tool to boost innovation, creativeness and companionship. The previous literature research done and the actual organizational environment observed while attempting to initiate such innovation management program will prove that this trend for the quest of innovation in any form, at all organizational levels, is not only a theoretical hypothesis of literates in the matter nor is it an intentional management effort of a few organizations which, fortunately, are effectively executing some form of innovation management. This enthusiasm for innovation comes also from bottom-line employees who day-in and day-out struggle with operational problems and are creative enough to devise ways to improve their working conditions. Unfortunately, they are most likely faced with an environment that almost forbids them from even suggesting such improvements.

This paper intends to end with the misconception that innovation must come only from exclusive groups within the organization. It also pretends to demonstrate that this quest for innovation emanates naturally from every individual and that organizations must take advantage of this in order to stay competitive.

2. Literature Review

Technological advancement has forced organizations all over the globe to keep up with technology by tailoring their products, services and processes to the unstoppable technological wave. The resulting entrepreneurial environment is one where ever-increasing competition, fueled by continuous improvement, is dictating the pace for organizational survival. This has forced managers to recognize that: 1) there is no chance for organizational survival unless their organizations keep up with technology; 2) organizations need to stay at the competitive edge by creating value for their clients, employees and, most importantly, their shareholders; 3) innovation from all directions, “top-down” or “bottom-up”, is the only way to guarantee continuous growth and improvement; 4) innovation of products is not enough to guarantee success, processes and services are equally important in the innovation cycle; 5) management of innovation becomes a monumental challenge, especially when managers need to be careful about scarce resource utilization and quality, not sacrificing the continuous growth they have recognized as essential to stay competitive.

Although quality and resource utilization have been, and still are, serious management considerations in the entrepreneurial world as dictated by the once popular movements of Total Quality Management (TQM) and Just-in-Time during the 1980's and 1990's, several resources recognize the declining popularity of these movements. “*Total quality management, just-in-time management, and concurrent engineering are already old news.*” (Kuczmarski, Middlebrooks and Swaddling 2001, 4). Robert B. Tucker (2004), consultant of *The Innovation Resource Consultant Group*, states:

“Companies have long favored interventions and initiatives that promise immediate returns: lean manufacturing, TQM, reengineering, Six Sigma and scores of others. These process improvements, none of which are easy to implement, have the benefit of showing short-term cost-savings, and elimination of inefficiency, the need for fewer staffers.”... “They only improve the bottom line, and after awhile you run out of places to cut.” (innovationresource.com)

In a case study book about Whirlpool, authors Tennant and Duarte (2003) declare the following about these previous movements at the company:

“In fact, Whirlpool too had used this business model to great success in the past. But at this point in our evolution, we realized that for true long-term sustainable growth, cost and quality alone would not produce the results we desired.”(p. 3)

Towards the turn of the twenty-first century, organizations started to realize that, given their new global scenario of competition, they needed to search for other ways of guaranteeing their continuous growth. The traditional quality-centered, cost-cutting management styles of the past were no longer producing the expected growth that companies needed. Top executives from companies all over the world started to recognize that their organizations needed to adopt a new entrepreneurial, risk-taking vision that translated into products and services that created value in the eyes of customers and shareholders. However, in order to get such results they needed to incorporate yet another component into the value-enhancing equation, the employee. This is how the concepts of empowerment, shared risk, idea management, innovation

management, all of which are part of yet an even greater philosophy, employee involvement, came to be.

Employee involvement, a subject extensively covered by numerous resources in the fields of Human Resources and Management, is a managerial philosophy that dictates that employees within an organization should have active participation in the decisions that directly affect their daily working conditions. At the same time, organizations that live by this philosophy benefit from a better-motivated employee workforce that, in turn, facilitates an environment of continuous improvement in organizational processes.

One of the most important pillars of the employee involvement philosophy is innovation. However, the contemporary vision of innovation in the new global organization is one where all contributions from anyone within the organization are valuable, as long as they translate into a variety of improved products, processes and services that enhance the value of the organization. In view of some scholars, innovation should be treated like a financial portfolio of products, services and processes that provide distinct benefits with varying degrees of risk and return. (Kuczarski, Middlebrooks and Swaddling 2001, 5)

This vision is radically different from the traditional view of innovation by organizations that still think this is a discipline only licensed to specialized groups in “R&D”; and that innovation only comes in the form of new products, exclusively developed by these “selected few” (Tucker 2001, innovationresource.com) (Lamont 2004, 14). This “erroneous” vision of innovation within the new global corporate environment is identified as “*The Innovation Paradox*” (Bessant 2003, 7). According to Bessant (2003):

“The majority of our organizations still throttle back their capabilities in this direction by only looking to a relatively small group of specialists to provide this. Individuals and groups are ‘licensed’ by virtue of their specialist training or position in the organization—as ‘R&D’, ‘engineering’, ‘market research’, ‘systems design’, etc. Although more extreme forms of hierarchical management have begun to fall away, there is still a sense in which many organizations assume that innovation comes from these special zones in the organization.” (p. 7).

Tucker (2001) puts it in yet another point of view:

“Today, the practice of innovation is generally similar to how companies approached quality in the early 1980’s. In those days, quality was a department – products were inspected before they were shipped. Now, quality is the responsibility of everyone in the organization.”... “Today innovation is still confined to a few departments – primarily R&D and marketing.”... “we are rapidly entering an era in which innovation, by necessity, must become everyone’s responsibility.” (innovationresource.com).

How do those organizations that have recognized the importance of employee involvement carry on with an effective program that truly brings the employee into the corporate playfield of decision-making? The approaches among different organizations are innumerable. Most organizations implement some form of employee suggestion or idea management program. Others establish employee rewards and recognition programs where employees can nominate each other freely for an exceptional achievement at work, be it project-related or a one-time contribution to corporate performance. The most employee-involvement-oriented environment is observed in organizations that tie their

employee suggestion or idea management programs to their own rewards and recognition programs. In these organizations, employees are more likely not only to come forward with ideas and innovations but also are given space and resources to prove their ideas right. They do it naturally, not because of the likelihood for a subsequent reward nomination and its related monetary compensation but just because of the fact that their ideas are being heard and given the chance to be proven right.

Those organizations with such structured idea management programs rely on written policies and rules that define every single detail of the program. From rules on the selection of idea evaluating committee members, to rules as to who is eligible for participation, to the definition of what types of ideas are eligible, to the definition of the monetary rewards to be granted for winning ideas, everything is defined in such programs. Most importantly, these programs even provide rules defining patent rights, and a tracking system to avoid plagiarism from previously submitted ideas. One of the most employee-conscious features found on the research of some programs is the requirement for timely feedback given to employees whose ideas have not been considered for participation.

Although some companies are taking these careful steps towards employee involvement, some other companies are lagging in this field, despite their recognition of the importance of employee involvement. For example, the concept of the idea/suggestion drop box has been around for a while in the organizational environment. Companies that have decided to take a step forward in employee involvement have moved from the idea/suggestion box to the types of programs described above. There is evidence about companies that have even implemented the use of specialized idea-

management softwares that are able to administer their whole idea suggestion programs (Boeddrich 2004, 277) (Caton 2004, 65) (Lamont 2004, 14). Others have eliminated their suggestion boxes and only stayed with employee recognition programs. An area of great opportunity for boosting an employee involvement environment is observed in companies that have recognized that employee involvement is needed for continuous growth and set forth a series of competencies, one of which is innovation, and intend to evaluate employee performance in total absence of tools given to both, the manager to measure and the employee to put them in practice.

The highly competitive environment of the twenty-first century, and the recognition by global organizations that sustained growth is guaranteed through effective management of their human resources, has led to an increased managerial focus on the individual. In this view, many organizations have changed the way in which individual employee performance is measured. They have made efforts in implementing more objective measuring tools that target the individual performance in relation to those values that are essential to the organization. This is how these organizations have come up with what is called “Core Competencies”.

Simply put, a core competency is a corporate value-adding feature that an organization identifies as medullar for its continued growth. By having core competencies included in the employee performance mechanisms, organizations intend to assure that individual performance is perfectly aligned in the direction of corporate vision and mission. The value of the existence of core competencies within an organization is a legitimate one. The true intention is to establish a series of values that are enforced throughout the organization which, eventually define a corporate culture that guarantees

unification and alignment of individuals' actions to corporate business strategies. However, in the same way as core competencies and corporate mission and vision become a corporate "credo", just as important should be the organization's commitment to provide means to effectively measure performance on these core competencies.

In an article by publishing company Houghton Mifflin Company, authors Stivers, Covin, Hall and Smalt (1998), discuss in detail how companies are increasingly using both financial and non-financial indicators in an effort to measure performance (<http://college.hmce.com>). The authors establish that, although most companies recognize the importance of both financial and non-financial measures of performance (competencies), most of them in reality tend to measure only the financial indicators, leaving the non-financial ones on a second place. This gives way to what the authors identify as a "measuring gap" between the importance given to a particular performance measure, the actual tools being used to measure it and the effective usage of these measuring tools in providing ways to improve performance in that particular area. (Stivers, Covin, Hall and others 1998, <http://college.hmce.com>).

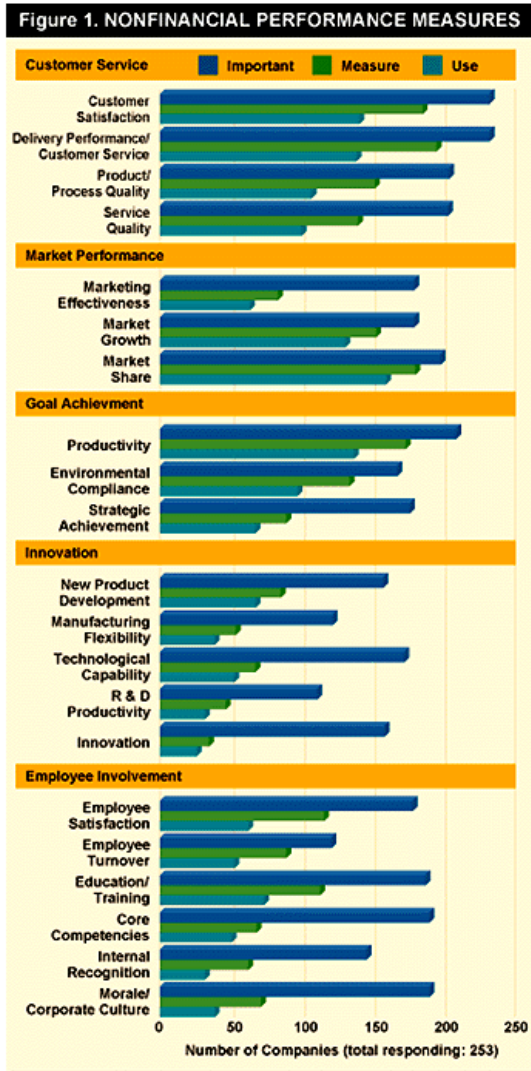
To illustrate this "measuring gap", the article mentions a survey conducted in 1998 among top executives in U.S. Fortune 500 firms and Canadian Post 300 companies.

The survey pursued three main objectives:

- 1) Identify those non-financial factors that are most commonly considered as "important" for performance measurement.
- 2) Determine if companies are, in practice, measuring these performance factors.
- 3) Determine if the feedback obtained from these measurements is indeed influencing the corporate planning processes.

The survey results revealed an astonishing reality about this “measuring gap”. As observed on *Exhibit 1*, the survey listed five major non-financial performance measures,

Exhibit 1: NONFINANCIAL PERFORMANCE MEASURES
 (Excerpt from Houghton Mifflin Company, website: <http://college.hmce.com/accounting/resources/students/readings/stivers.htm>)



each containing areas of interest that were addressed through questionnaires. The five main areas surveyed were: customer service, market performance, goal achievement, innovation, and employee involvement. All areas within each main performance measure were submitted to the same criteria, a ranking of importance for the company, a ranking for degree of measurement, and a ranking for influence of the performance measure in corporate planning. *Exhibit 1* graphically shows an increasingly marked measuring gap among the importance of the performance measure, the ability of measuring it, and actual use of its measurement to influence corporate strategy.

Although all five main areas surveyed on this study were identified as non-financial performance measures, survey results showed that some of them had indeed some way of being measured. This is observed in the performance areas of customer service, market performance and goal achievement. Survey results indicated that, in general, these three

areas showed a lower “measuring gap”. However, the remaining areas of innovation and employee involvement have the greatest measuring gaps of all. This is clearly seen on the graph in *Exhibit 1*, which lists all five areas of evaluation in order of increasing measuring gap.

The lower measuring gaps observed in customer service, market performance and goal achievement could be attributed to the existence of widely known business indicators that allow companies to objectively and effectively assess, to some extent, these performance measures. On the other hand, the remaining performance measures of innovation and employee involvement clearly lack of effective means to objectively assess them, as seen by the obvious increased measuring gap on all areas of these performance measures, clearly illustrated on *Exhibit 1*.

The results of this survey confirm the previous hypothesis that, although some companies recognize employee involvement and the need to boost innovation, they actually lack the tools to effectively measure both; and, much less, possess the necessary tools to feedback their experiences about both into future strategic planning. This is clearly a paradoxical view of reality when compared to the current trends of increased importance of innovation and human capital management, as recognized by literature and organizations worldwide ever since the turn of the twenty-first century.

Given this reality, what could then be missing among those organizations that, in spite of acknowledging the importance of innovation management at present times, still are not able of effectively measuring and using it in their benefit? If CEOs and managers were to pay attention to management literates about effectively managing human capital as the only way to establish a competitive advantage in the global environment of the

new century, then they should recognize the need to implement real human capital assessment tools.

The problem among organizations that exhibit this behavior is not a deliberate negation of the importance of innovation. Rather, the root cause of it seems to point towards a remote vestige of the industrial revolution and the associated specialization of labor and, the eventual consideration of innovation as a scientific activity of a small few; all of this influenced by the school of thought of Frederick Taylor and the management style of industrialists like Henry Ford. As a result, not much was done about effective employee involvement throughout most of the twentieth century (Bessant 2003, 8). Management styles throughout much of this era encouraged mass production, profit-oriented environments whose main driving force was standardization.

Therefore, managers would not allow changes to existing, proven processes that produced the same results over and over, for this was the medullar ingredient that guaranteed massive production outputs. The general conception was that once a well-designed process was established, nothing needed to be done on it unless experts carefully re-designed it. That is how the conception of innovation as an exclusive “R&D”-related task started to emerge.

What does it take for an organization to start moving away from the misconception of innovation as an exclusive science of a few? How could organizations create an environment that fosters innovation as a participative activity for which everyone in the organization is accountable? Literature review reveals several basic concepts needed to transform the organization’s environment from a “state of being” to a

“state of becoming” (Tucker 2001, innovationresource.com). According to Tucker (2001) there are four basic principles of this transformation (innovationresource.com):

1. The approach to innovation must be comprehensive. – Organizations are so concentrated in having their innovation streams being managed by specialized groups that they seldom take the time to study if the next “breakthrough” will be as successful as previous ones.

For example, in 1998 Gillette Company became so enthusiastic about the tremendous success of its previous “Sensor” razor family during the 1990’s that it immediately started development and marketing of the new razor line “Mach 3”. However, while being a hit in America, it did not count on poor sales on Asian countries, which had been financially depressed. As a result, the company rapidly lost value in Wall Street.

2. Innovation must occur in the form of an organized, systematic and continuous search for new opportunities – Organizations that identify innovation as a core competency must have systems and practices in place “*that promote a deeper understanding of social, demographic and technological change*” (Tucker 2001, innovationresource.com). Organizations must continuously be at the outlook for trends in these areas for these are indicators that could drive future efforts. Some organizations dedicate teams to the only mission of proactively spotting opportunities based on trends. Membership to these teams is usually voluntary and from various areas within the organization. The dynamics of such teams usually revolve around three main questions: What do new developments mean to the organization? How could the organization take advantage of them? Are

there any threats in the future that might impede the organization from taking advantage of an opportunity?

3. The innovation process must involve everyone within the organization – Most organizations today don't pay their employees to innovate. The irony is that many of these organizations include innovation as an integral part of their employees' performance. Moreover, in moments of crisis, employees are suddenly asked to be creative and innovative. But their creativity and innovation are cut short right there. The remaining part of the year there is no time or resources to carry on with new, fresh ideas.

Most companies don't have an organized system, besides the traditional suggestion box, designed to stimulate freethinking and innovation among employees.

4. The climate for innovation must be continually improved – Most organizations have developed a culture revolving around a set of values that are mostly targeted towards customer satisfaction, quality and loyalty to the organization. As a result, they become so obsessed with doing things “the company way” that they leave little room for innovation, continuous improvement and, of course, mistakes. A climate that truly promotes innovation is one where there is an acceptance of two accompanying elements along the process: risk-taking and mistakes. An innovative organization is one that learns from its mistakes. There is no chance for innovation and continuous improvement, and it would be naïve to pretend so, unless there is a conscious acceptance of these two elements.

An organization must never lose its conception as a production center. After all, that's the main purpose for its survival in business. However, if it wants to guarantee its continued existence it must transform itself into one where innovation flourishes. So, it must start conceiving itself also as a learning center where there is space to improve, to incorporate fresh ideas, to take calculated risks, to make mistakes and learn from these.

In an article published in the website for the consultant company Team Building Inc. (Teambuildinginc.com), Peter Grazier (1995) identifies the following three key learning points taken from personal experience to promote an innovative climate (Teambuildinginc.com):

1. *“Everyone has something to contribute ... and will if the environment is right.”* – The most common mistake of people trained in technical careers, when taking decisional roles, is to assume that their solutions to problems are always the most appropriate. The author declares a change in personal opinion in regards to innovation based on previous experiences of bottom-line employees coming up with the most simple, economical and effective solutions to critical operational problems. The author further states that there is a hidden creative potential behind most employees and that it is only a matter of management recognizing it in order to benefit from it.
2. *“The human element of performance is more important than the technical element”* – Organizations have become too specialized, to the point that there is always a technical and systematized approach to every discipline of business.

This technicality syndrome has absorbed even Human Resources. More than managing resources in fields of motivation, creativity, empowerment and recognition, Human Resources are too busy specializing in fields like recruiting, benefits, compensation, health and safety. The first fields are usually delegated to the manager when, actually, the whole organization should be sponsoring an environment where employee involvement is encouraged.

3. *“Most decisions can be significantly improved through collaboration”* – This is a principle simple to understand but difficult to put in practice. According to the author, American business culture is backed by a whole educational system that encourages individual thinking and decision-making. Therefore, professionals who eventually get to decisional positions find it difficult to incorporate others into the decision-making process, which has created a traditional business culture where little participation has been given to people outside of management staff.

As further stated by the author, in the business environment, even the rewards and recognition systems are designed to “discourage” collaboration. Why then should managers change if they’ve been rewarded in the past for performing according to the “individualistic” philosophy?

The author declares that once a manager is forced to include others in decision-making and problem solving, there is eventually a conviction that the resulting ideas and solutions are better than those that would have been arrived to by thinking individually.

In another article, published by Harvard Business Review, authors Pascale and Sternin (2005) identify the following six elements of change management (p. 74-81):

1. *“Make the group the guru”* – Organizations need to start moving away from the concept of “champions” and leaders in subject matters. This concept moves the organization away from collective ownership of solutions on important matters and creates difficulties in the acceptance of solutions coming from a “selected” group. Better cohesion is achieved in organizations that incorporate groups of people in the search for alternatives that provide solutions to their situations.
2. *“Reframe through facts”* – Problems should be re-stated, re-defined, as opposed to applying “out-of-the-box” analyses to “out-of-the-box” situations. *“Restating the problem shifts attention to fertile new ground and opens minds to new possibilities”* (Pascale and Sternin 2005, 76). Situations should be analyzed objectively by collecting data and observing whether the situation deviates from “the norm” and, if so, defining what exceptions make the situation different from others. That way, attention could be given to resolving the exceptions that brought about the new situation.
3. *“Make it safe to learn”* – Detach people from “status quo”-oriented solutions. Solutions to problems involve taking new routes and assuming some risks. Avoid an environment where those who voluntarily take the challenge of looking for new ways are ridiculed or subjected to retaliation.
4. *“Make the problem concrete”* – When discussing important matters, don’t hide important issues within the complexity of the discussion. Individuals within corporations usually behave according to an unwritten social code whose purpose

is avoiding being put “on the spot”, to be asked about complex matters that they don’t necessarily have the expertise to discuss. Rather, they tend to avoid discussing these matters in detail or hide them within the discussion of other matters that are not conflicting. The authors of the article offer an example of recent times.

“Before NASA’s devastating loss of the Columbia space shuttle, engineers from Martin Marietta and Boeing buried the imminent risks of the spacecraft’s protective ceramic tiles within the complicated, nested, ten-point-font bullet points of their PowerPoint presentation.” (Pascale and Sternin 2005, 78).

5. *“Leverage social proof”* – Whenever possible, present examples of situations where proposed new changes have worked. Show the outcomes of these changes in other organizations and use them as examples. The authors compare this approach to the one used by Alcoholics Anonymous since the 1930’s, when two individuals came up with the idea of holding weekly get-togethers in an effort to help them stay sober.
6. *“Confound the immune defense response”* – Big organizations tend to reject and resist changes. Changes are better introduced into the organization by going around this natural organizational rejection process. The key to do this is to first implement solutions through small groups within the organization. Solutions that are internally developed are better accepted among members of small groups because they feel closer to their proponents. That way, the process of change feels natural. So, once the organization sees that the proposed changes work, then it is ready to assimilate the newly developed solutions as organizational policy.

Pascale and Sternin (2005) introduce in their article a concept called “positive deviance” as a driving mechanism that facilitates change management within organizations that are truly interested in changing the way they manage and introduce innovations (p. 81). According to the authors, the “positive deviance” approach requires that “*experts become learners, teachers become students, and leaders become followers*”(Pascale and Sternin 2005, 81). This is not to say that those in leadership positions must renounce to their managerial responsibilities. What it means is that they should set aside their ego and let their subordinates become agents of change instead of themselves.

This is a radical change in itself for those who traditionally think that being in a managerial position means an entitlement to be a discoverer. Under “positive deviance” the manager becomes a facilitator but still maintains the responsibilities of resource management and driving towards goal achievements. Positive deviance calls for an inversion of the traditional sequential driving forces of change: knowledge, attitude, and practice. If people are rather allowed to work their way towards new solutions and approaches, through practice, this eventually triggers a change in attitudes all across the organization. In turn, the organization will start experiencing a growth in knowledge precisely because of the increased experience gained through practice. According to the authors, the positive deviance method works best once the organization is ready to discard the practice of adopting “out-of-the-box” solutions and leave those exclusively for exceptional situations.

The examples discussed above show common traits about the essential elements of employee involvement. Although referred to differently on each example, positive

deviance, change management, innovative climate, innovation management, all form part of the same general principle, employee involvement. These examples show no recipe for the implementation of an effective employee involvement program. In fact, the methodology, systems and procedures through which each organization devises such programs are unique and respond to the particular interests and corporate cultures of each. The discussed examples are merely the bare essentials needed to define an environment in which innovation can flow naturally from all corners of the organization.

Management literature has extensively discussed the mistake most commonly made by organizations that try to carbon-copy employee involvement programs that have been successful in other organizations. The majority of cases, if not all, end in the abandonment of the original concept and the return to the old vertical and, even stiffer structure. To embark in the process of implementing a successful employee involvement program, organizations first have to internalize the concepts presented before and adopt them as an integral part of their culture. Once adopted, the organization's culture starts to show traits of an environment appropriate for the creation of an enduring employee involvement program. These traits reveal themselves in the form of abilities that start showing up naturally as part of the organizational culture. As explained by Bessant (2003), *Exhibit 2* shows a list of these "abilities" and the typical organizational "constituent behaviors" that characterize them (p. 65-67).

As stated before, developing a model for employee involvement is as unique as the organizational culture where it is going to be implemented. It has to satisfy the main values and principles through which it operates. Despite this difficulty, Bessant (2003) found a way to describe the general steps in developing such a program in what is called

“the reference model” (p. 68). In Bessant’s view, the development of a successful employee involvement program is seen as a series of overlapping phases or levels through which the organization must go on its way towards successful implementation. A summarized example of such view is seen on *Exhibit 3*.

Exhibit 2: Key abilities in developing high-involvement innovation capability
(Excerpt from: High involvement innovation: Building and sustaining competitive advantage through continuous change; Bessant, 2003)

<i>Ability</i>	<i>Constituent behaviours</i>
'Understanding'—the ability to articulate the basic values of continuous high-involvement innovation (HII)	<p>People demonstrate a shared belief in the value of small steps and that everyone can contribute, by themselves being actively involved in making and recognizing improvements</p> <p>When something goes wrong the natural reaction of people at all levels is to look for reasons why etc., rather than to blame individual(s)</p>
'Getting the HII habit'—the ability to generate sustained involvement in HII	<p>People make use of some formal problem finding and solving cycle</p> <p>People use appropriate tools and techniques to support HII</p> <p>People use measurement to guide the improvement process</p> <p>People (as individuals and/or groups) initiate and carry through HII activities—they participate in the process</p> <p>Closing the loop—ideas are responded to in a clearly defined and timely fashion—either implemented or otherwise dealt with</p>
'Focusing HII'—the ability to link HII activities to the strategic goals of the company	<p>Individuals and groups use the organization's strategic goals and objectives to focus and prioritize improvements</p> <p>Everyone understands (i.e. is able to explain) what the company's or department's strategy, goals and objectives are</p> <p>Individuals and groups (e.g. departments, HII teams) assess their proposed changes (before embarking on initial investigation and before implementing a solution) against departmental or company objectives to ensure that they are consistent with them</p> <p>Individuals and groups monitor/measure the results of their improvement activity and the impact it has on strategic or departmental objectives</p> <p>HII activities are an integral part of the work of individuals or groups, not a parallel activity</p>
'Leading HII'—the ability to lead, direct and support the creation and sustaining of HII behaviours	<p>Managers support the HII process through allocation of time, money, space and other resources</p> <p>Managers recognize in formal (but not necessarily financial) ways the contribution of employees to HII</p> <p>Managers lead by example, becoming actively involved in design and implementation of HII</p> <p>Managers support experiment by not punishing mistakes but by encouraging learning from them</p>
'Aligning HII'—the ability to create consistency between HII values and behaviour and the organizational context (structures, procedures, etc.)	<p>Ongoing assessment ensures that the organization's structure and infrastructure and the HII system consistently support and reinforce each other</p> <p>The individual/group responsible for designing the HII system designs it to fit within the current structure and infrastructure</p> <p>Individuals with responsibility for particular company processes/systems hold ongoing reviews to assess whether these processes/systems and the HII system remain compatible</p> <p>People with responsibility for the HII system ensure that, when a major organizational change is planned, its potential impact on the HII system is assessed and adjustments are made as necessary</p>
'Shared problem-solving'—the ability to move HII activity across organizational boundaries	<p>People co-operate across internal divisions (e.g. cross-functional groups) in HII as well as working in their own areas. This is also extended to inter-organizational relationships</p> <p>People understand and share a holistic view (process understanding and ownership)</p> <p>People are oriented towards internal and external customers in their HII activity</p> <p>Specific HII projects with outside agencies—customers, suppliers, etc.—are taking place</p> <p>Relevant HII activities involve representatives from different organizational levels</p>

Exhibit 2 (Continued): Key abilities in developing high-involvement innovation capability
 (Excerpt from: *High involvement innovation: Building and sustaining competitive advantage through continuous change*; Bessant, 2003)

<i>Ability</i>	<i>Constituent behaviours</i>
'Continuous improvement of continuous improvement'—the ability to strategically manage the development of HII	The HII system is continually monitored and developed; a designated individual or group monitors the HII system and measures the incidence (i.e. frequency and location) of HII activity and the results of HII activity There is a cyclical planning process whereby the HII system is regularly reviewed and, if necessary, amended (single-loop learning) There is periodic review of the HII system in relation to the organization as a whole, which may lead to a major regeneration (double-loop learning) Senior management make available sufficient resources (time, money, personnel) to support the ongoing development of the HII system
'The learning organization'—generating the ability to enable learning to take place and be captured at all levels	People learn from their experiences, both positive and negative Individuals seek out opportunities for learning/personal development (e.g. actively experiment, set their own learning objectives) Individuals and groups at all levels share (make available) their learning from <i>all</i> work experiences The organization articulates and consolidates (captures and shares) the learning of individuals and groups Managers accept and, where necessary, act on all the learning that takes place People and teams ensure that their learning is captured by making use of the mechanisms provided for doing so Designated individual(s) use organizational mechanisms to deploy the learning that is captured across the organization

Exhibit 3: An explanation of the different levels in the reference model
 (Excerpt from: *High involvement innovation: Building and sustaining competitive advantage through continuous change*; Bessant, 2003)

<i>Level</i>	<i>Performance</i>	<i>Practice</i>
0 = No high-involvement innovation activity	No impact from high-involvement innovation	Problem solving random No formal efforts or structure Occasional bursts punctuated by inactivity and non-participation Dominant mode of problem solving is by specialists Short-term benefits No strategic impact
1 = Trying out the ideas	Minimal and local effects only Some improvements in morale and motivation	High-involvement innovation happens as a result of learning-curve effects associated with a particular new product or process—and then fades out again. Or it results from a short-term input—a training intervention, for example—and leads to a small impact around those immediately concerned with it. These effects are often short-lived and very localized
2 = Structured and systematic high-involvement innovation	Local-level effects Measurable high-involvement innovation activity, e.g. number of participants, ideas produced, etc. Measurable performance effects confined to projects Little or no 'bottom line' impact	Formal attempts to create and sustain high-involvement innovation Use of a formal problem-solving process Use of participation Training in basic high-involvement innovation tools Structured idea management system Recognition system, often parallel system to operations Can extend to cross-functional work but on an <i>ad hoc</i> basis
3 = Strategic high-involvement innovation	Policy deployment links local and project-level activity to broader strategic goals Monitoring and measurement drives improvement on these issues, which can be measured in terms of impact on 'bottom line'—for example, cost reductions, quality improvements, time savings, etc.	All of the above, plus formal deployment of strategic goals Monitoring and measurement of high-involvement innovation against these goals In-line system
4 = Autonomous innovation	Strategic benefits, including those from discontinuous, major innovations, as well as incremental problem solving	All of the above, plus responsibility for mechanisms, timing, etc., devolved to problem-solving unit High levels of experimentation
5 = Strong high-involvement innovation capability	Strategic innovation Ability to deploy competence base to competitive advantage	High-involvement innovation as the dominant way of life Automatic capture and sharing of learning Everyone actively involved in innovation process Incremental and radical innovation

Despite its recent increase in popularity, employee involvement and idea management programs had been adopted some time ago by many organizations around the world, even before experts in management started writing about it in recent times. In fact, the earliest record of utilization of such a program goes back to eighteenth-century Japan, implemented by the eighth shogun Yoshimune Tokugawa (Bessant 2003, 23) (Schroeder and Robinson 1991, 71).

Different studies have reached almost identical conclusions as to why Japanese companies have traditionally been more successful than western companies, even though the latter have used more automated and technologically advanced methods of manufacturing. The main differences found between Japanese and western companies lie on three areas: design of the product for manufacturability, work organization, and the approach towards human resources (Bessant 2003, 21).

On this last aspect of human resources, researchers have also found that there are more Japanese companies with longer tradition of employee involvement than anywhere else in the world. Research has shown some very good examples of long established employee involvement programs, mostly in Japanese companies like Toyota, Canon, Bridgestone, and Nissan. In the U.S., there is a good example of a company with a long tradition of employee involvement and innovation, 3M. (Kuczarski, Middlebrooks and Swaddling 2001, 43) (Jones 2002, 6) (Bessant 2003, 24)

Researchers have explained that there is a historical reason for the Japanese's success in all three aspects previously mentioned. Before World War II, Japanese industry had traditionally been considered as one of poor quality. Along postwar years during the American occupation of the country, in an effort to re-build the country's

devastated industrial resources, Japanese industrialists had been under the influence and intensive training of major experts in management like Dr. W. Edwards Deming. Dr. Deming and other management experts of that period provided Japanese industrialists with important teachings in quality and resource management. The Japanese took advantage of these teachings and saw an opportunity to apply them, in view of the biggest problem faced by their industry at the time, scarce resources (Schroeder and Robinson 1991, 71-73) (Jones 2002, 37).

Faced with these challenges, Japanese firms have perfected resource utilization and work organization, backed by intensive employee involvement. The Japanese have been successful in recognizing that their most precious resource is human capital and have put in practice the necessary tools to benefit from it. In other words, they were forced to be creative and innovative, and had the tools to effectively manage creativity and innovation. There is no surprise then, according to experts, that more Japanese firms have longer traditions of employee involvement than western firms.

But there are examples of many other companies that have endured some serious transformations in their culture in order to set the basis for an environment where ideas are accepted from every member of the organization. The case of General Electric is a classic one, written about over and over in management literature. It is widely known the enormous transformation that the company went through to the latter part of the 1980's to create an environment of openness and employee involvement, elements that the company estimated necessary for the success of its world-famous Six-Sigma discipline.

Other examples of drastic transformations include Semco, a Brazilian metalworking firm; Oticon, a Danish company in the business of hearing aids; Southwest

Airlines in the U.S.; Milliken, in the textile industry; Capital One, a U.S.-based financial services provider; Chevron-Texaco; and Kumba Resources, a mining company in South Africa (Bessant 2003, 18-28). All of these companies have successfully implemented programs of employee involvement and have experienced consistent growth through continuous improvement. The key factor for their success is that all have implemented innovation management programs tailored to their individual cultures.

Therefore, if there were such a thing as a generic formula to establish an effective employee involvement program, it would be not to copy other programs but rather to create one that adapts to organizational culture and values. And, independently of the particular structure of the program, the organization must be ready to live by the general principles of openness to ideas and acceptance of change if it wants its employees to sense that their contributions to organizational growth are really being appreciated.

3. Area to be Investigated

3.1 Problem Definition

This field project is conducted at a manufacturing facility in Puerto Rico, which is part of a branch of a multi-national organization involved in the business of healthcare product manufacturing for human consumption. Having over forty years of presence in the Puerto Rico manufacturing site, “Company X”, as it will be referred to for the purpose of this study has base operations in the United States. Like many other organizations in the healthcare business, Company X has spread its presence around the world over the course of time.

Over the years, the Puerto Rico manufacturing site of Company X, although having its own management and staff, has responded to central corporate management’s policies and procedures. Like many other companies in the same business, Company X (and its Puerto Rico manufacturing site included) has followed the different trends that others have followed to stay competitive. It was very common to hear about Total Quality Management (TQM) and Just-In-Time manufacturing to the latter 1980’s and early 1990’s respectively. Throughout this time, Company X’s workforce and, especially the Puerto Rico site’s workforce, had always distinguished for being one of the most capable, cooperative and successful in the whole organization in moving along with these trends.

Paradoxically along this time, and even before, there is not much evidence of Company X’s position towards management of its human capital in the form of programs targeting the enhancement of employee morale. There is some evidence of formerly

existing employee recognition programs and even of the typical idea/suggestion drop box that have come and gone, and re-tried again, but no solid corporate position that aligned such programs with human resource management. In fact, interviews with long-time employees have confirmed repeated times that the company had traditionally followed a rigid “top-down” management style with little room for new ideas to actually get implemented, especially those coming from bottom-line employees.

All this started to change towards the beginning of the present decade (Year 2000). Following the most recent trend in the entrepreneurial world, Company X had started going global. Joint ventures and acquisitions expanded the company’s already global presence. Company X recognized that, in order to stay at the competitive edge, it needed to develop strategies that relied more on its human capital. As a result, Company X re-designed its employee performance evaluation system and its related yearly employee merit compensation scheme. Company X adopted an evaluation system that concentrated on three areas of interest: job responsibilities, annual goals, and core competencies. The set of core competencies selected for measuring are: adaptability, integrity, teamwork, innovation and initiative; of which, the latter two are of particular interest for the purpose of this study.

Although providing management with an improved, organization-aligned way to measure employee performance, Company X’s new employee performance evaluation system lacks of defining effective means to measure these competencies, especially those of innovation and initiative. Just how innovative or entrepreneurial an employee needs to be in order to be ranked above all other employees on these competencies? Isn’t this leaving too much subjectivity to the supervisor? Do all supervisors and managers have a

standard perception of what is innovation or initiative? What if there are managers and supervisors who still think that innovation and creativity is only limited to R&D and that these people are at a superior intellectual level? Isn't this underestimating the true potential of employees who, by the way, are becoming more and more educated as new generations enter the working environment?

Interviews with employees of the most recent generations that have become part of Company X reveal that they have a solid educational background and a disposition to contribute, in any way possible, with their ideas and knowledge to the improvement of processes and services. However, the lack of a systematic approach for handling these ideas prevents them from finding sponsorship. Clearly, this demonstrates that the need for better ways for measuring and rewarding innovation and initiative is not only a movement advocated by recent management literature but also a need claimed by employees themselves.

Company X needs to incorporate a program to manage/reward ideas and innovation and align it with its existing employee performance measuring tools and employee rewards programs. Failure to do so could eventually force Company X to ask itself if it is worthwhile to consider innovation as a core competency. Core competencies for an organization are supposed to be medullar, part of its values, and as such should be measured and monitored. Otherwise, they should not be core competencies at all.

3.2 Proposal

The present section is a description of an original proposal, as presented to Company X in June, 2005 for an employee involvement program in the form of an idea competition for employees in the manufacturing areas. The proposal was first presented before plant's manufacturing upper and middle management. Later during 2005, it was further shown to plant's manufacturing supervisors, coordinators and operators.

The proposal discussed below consists of a full description of the program, as described through different sections like: scope, Company X's background on similar programs, program structure, milestones, and expected outcomes.

Scope

This project can be implemented at any enterprise or company and has the intention of boosting employee morale through an employee involvement program that targets the enhancement of the creative abilities of employees, while promoting continuous improvement and providing effective means to seek for and measure innovation from all sectors of the organization.

The project pursues to attract the best of the employees' creative talents to the workplace through the implementation of an innovation competition. The competition will consist of a challenge, presented to employees once a year, for which they are to come up with solutions. One of the main requirements of the competition will be that employees, individually or in teams, will not only propose their ideas but also develop them, defend them in front of a committee and prove their ideas through the creation of prototypes.

One of the main objectives of this project is that it will be tested on an actual working environment. The testing site for this project will be referred to as “Company X”. This company has the need for an innovation program, different from other program attempts done in the past. Company X represents a magnificent test ground for this project due to a general, long-time need perceived among employees for an opportunity to express their ideas; an opportunity of having their ideas taken in consideration in favor of the improvement of processes that affect their daily working conditions.

Company Background on Employee Involvement

- Management’s experience at Company X reveals a general perception that the majority of employees are very creative in their personal lives.
- Previous employee surveys conducted at Company X show that employees need to know that management cares about their ideas. They need to feel they are considered part of the solution to their work opportunities.
- Few employees have been self-motivated in the past to use their creative and innovative traits in the development of solutions to their daily work problems.
- Company X has had previous attempts of “idea” programs, but with the wrong focus. A past “idea” program was based on the “drop-box” concept. Employees would come up with ideas and drop them in a box. From that point on, they never knew what happened with their idea, unless they were lucky enough to have their idea selected as the “best” idea.

- Company X has made a further attempt to incorporate employee involvement as part of its culture in the form of a new system for employee performance evaluation. The new system targets three main areas of performance: job responsibilities, annual goals, and core competencies. The set of core competencies to be measured are: adaptability, integrity, teamwork, innovation and initiative. However, while incorporating this system, the organization has not provided effective means and systems to particularly measure these competencies, especially innovation. The responsibility of measuring performance against competencies has been solely relied upon managers and supervisors. They have no general guide or corporate guidelines and systems in place to support and guarantee that employees know before hand what is expected in relation to their performance on these competencies.

Program Structure

The following program structure design is explained using the “Seven S’s” model. The “Seven S’s” approach pretends to explain a concept in terms of seven areas of interest, which are: strategy, structure, systems, style (culture), staff, skills, and shared values (Kotelnikov 2006, 1000ventures.com). Since the program is to be implemented at Company X, the proposed program structure is custom-designed for the company. The model could be adapted to be used at other organizations.

- Strategy – Start implementation of the program with the manufacturing area. This area conceals the gross part of the working population at Company X. This

proposal was presented to plant management, who provided the following further recommendations related to strategy:

1. Implementation must be presented to employees as a “pilot” plan. Being a new approach to employee involvement at the company, a pilot plan will allow the administering committee of the program to learn from the experience.
 2. Program must be rolled out first in only one part of the manufacturing area, preferably an area whose manager is more receptive to the program. Plant management recognized that some area managers are followers of the old-style management, not giving too much room for innovation to take place.
 3. Despite the increased allowance for employee involvement that the program will bring, rules need to be in place to control the scope of newly proposed ideas to keep them within compliance of the typical regulations of the healthcare business, of which Company X forms part.
- Structure - No major changes to company’s structure are needed. No department needs to be created, at least for the first few cycles of the program. Instead, a steering committee needs to be in place to administer the program.
 - Systems –
 1. The program could be organized as a periodic idea competition carried out once a year, where participants are presented with a challenge for which they propose solution ideas, either individually or in teams, and are sponsored by the company to actually demonstrate their idea in action.

The program should allow idea-generators to come forward with a preliminary idea to obtain company sponsorship for their project. If pre-approved, participants are eligible to get limited funding, if needed, to carry out their project, assignment of in-house resources to assist them in their project and a mentor who will offer technical guidance to the participant(s). The participants will be given a three-month period from pre-approval date to develop and complete their project, after which it will be submitted for final evaluation.

2. During the first cycles of the program, no electronic systems need to be created. A whole procedural and ruling system needs to be in place to establish the guidelines for the program. If the program is successful, future consideration should be given to commercially available software platforms specifically designed for the management of ideas in organizations. (Boeddrich 2004, 277) (Caton 2004, 65) (Lamont 2004, 14) These software packages have been successfully used by several organizations having employee involvement programs.
3. An attractive advertising campaign should be in place to attract potential participants. A proposed idea for advertising is to conduct a preliminary competition before the yearly competition. This competition, which is to be carried out for “fun”, is designed to create enthusiasm among employees by presenting them with a challenge and letting them organize in teams or individually to overcome the challenge. The competition will require employees to build prototypes that meet the challenge and putting

them to test on a single activity. This activity could be carried out outside the company's facilities. An example challenge could be: "how to throw an egg from a 20ft elevation without breaking it." People would be motivated by these "uncommon" challenges just because of their "uncommonness". The environment that will permeate the competition activity would be one of joy and companionship.

- Style / culture –
 1. A preliminary investigation of the company could be performed to find if its corporate culture in relation to innovation varies over time or even, over geographical area or ethnic group. Company X has global coverage and it might be natural to expect that its corporate culture, though being unique, might be adapted to the culture of each country where it has operating facilities.
 2. In order for the project to be successful, the company's culture needs to be enthusiastic about the program. Enthusiasm from management, at all levels, must exist in order to encourage participants to come forward naturally with their ideas.
- Staff - A steering committee to administer the program could be composed of a directive group, which will be in charge of pre-evaluating ideas being submitted, of assigning resources to participants and of evaluating ideas at a later date, once developed by the participants.

A manager must head the committee and its members could be employees from all levels and from areas of different disciplines. The number of persons in

the committee should be limited, but could expand or contract depending on the level of participation for each competition cycle. Therefore, participants of the committee must renew their membership to it with every competition cycle. Membership to this committee could be voluntary and formally solicited by any person by submitting a resume to the manager in charge of the committee. The head of the committee will appoint membership of the applicant to the committee based on the applicant's experience and expertise developed through his/her work trajectory.

Other resources should be available, outside of this committee, as part of the innovation program's staff. These resources are to be assigned by the steering committee to participating individuals or teams on every competition cycle. Resources could be experts on any area, whose assistance is needed to support the development of each particular idea. Their assignment is based on the applicability of their area of expertise for each idea project.

Another component of this innovation program's staff is mentors. Mentors could participate voluntarily by formally submitting their participation request in the same way as steering committee members do. The head of the steering committee will appoint the mentor based on expertise and work trajectory. Mentors get assigned to innovation projects with each competition cycle and must be committed to assist the participating individual or team to successfully complete their project until its evaluation day.

Upper plant management should sponsor the staff of the whole idea program.

- Skills: Skills needed for participation in the program either by idea submitters or by committee members are:
 1. entrepreneurial attitude
 2. ability to relate with others
 3. ability to convey ideas orally, in writing or by visual demonstration
 4. ability to self-criticize or to accept constructive criticism
 5. positive attitude when faced with obstacles

- Shared values: Shared values in Company X to support this program could be:
 1. Enthusiasm
 2. Encouragement of innovation
 3. Openness of communication among all levels
 4. Acceptance of innovation coming from every possible realm of the working organization, from bottom-line employees, to R&D, to upper management.

Milestones

1. Signature of a Confidentiality Agreement between Company X and a representative of the Engineering Management program at the University of Kansas.
2. Present project proposal to new Plant Manager. Due to recent management changes, proposal has to be presented to new staff.
3. Conduct internal short surveys among employees to test their creative abilities. The company could use a simple survey to get a sense of the ground on which it

- will be laying the foundations for this project. This will serve as a confirmation of the previous employee survey results referred to before and, at the same time, create expectation and curiosity among employees as to why the company is suddenly interested in their creative traits. This way, they will be prepared for the time when the company announces the “pilot” innovation program to them.
4. Develop program rules and advertising campaign. Create synergy with other departments from which support will be needed in terms of support staff and mentorship during competition cycle.

Expected Outcomes

The expected outcomes of this project are:

- Development of a corporate culture that encourages individuals to be part of the solution to problems
- Enhancement of employee morale
- Employee empowerment – Make employees feel like owners of their working environment
- Provide a real tool to measure innovation and initiative among employees.
Company X evaluates employees for these competencies but doesn't provide them with the necessary tools to express themselves in relation to them.
- Fortified companionship and cooperation among employees and supervisors
- Reduced training time when incorporating changes that came out of ideas developed by employees. There is a greater chance that more employees are familiarized with ideas that have been created by their peers before they even get

implemented. This facilitates training of all personnel when the idea gets implemented because all employees have known the idea from its conception.

- Identify leaders among the company's workforce
- Letting employees prove to themselves that they have creative potential and that the company is willing to take their ideas seriously

3.3 Methodology

In reaction to the recommendations given by Company X's upper management and, recognizing the magnitude of such a program as presented on the preceding proposal, the strategy followed in taking the first steps towards its implementation have revolved around one main subject, changing the corporate culture. As recognized by upper management, Company X's culture responds to a long tradition of hierarchical management, where degrees of freedom of action grow smaller further down the chain of command.

This narrowness grows even stiffer given the strict controls to which Company X, and any other company in the healthcare business, is subject to. Therefore, the implementation of any program that pursues sources of innovation through high employee involvement will require changes in attitudes among both employees and management, especially management.

Company X's upper management recognized that some of the management staff members are still attached to the rigid management styles of past times; where little room is left for employees to come forward with ideas that could result in both their jobs being carried out more efficiently and the company benefiting from less waste of resources.

Management recognized though, that this “rigid” attitude from staff members could sometimes be attributed to the fact that daily work schedules and pressures are so demanding that little time and willingness is left in them to listen to employees’ ideas and suggestions, many of them falling on “deaf ears”.

As a result, employees have increasingly become more reluctant and pessimistic about contributing with ideas, in fear of retaliation or, worst of all, having a perception that their ideas are not worth hearing. This apparent apathy towards employee involvement has to be fought in two fronts, the employee and the manager; the first because of their distrust in any effort made in favor of increased involvement, and the second because of their lack of acknowledgement about the importance of employee involvement.

The following are the principal components of the methodology followed to create the foundations of a high employee involvement environment at Company X:

- Focus upon on a small “focal group” within the area where the program will be implemented.
- Develop a “Creativity Questionnaire” which will be used for research purposes to evaluate the current environment on which the proposed program will be established. The questionnaire will intend to measure how creative and innovation-oriented employees perceive both, themselves personally and their working environment.
- Design a simple “Innovation and Creativity Exercise” which will be used to test employees’ reaction to a working situation where, given a process and an infrastructure, they are asked to be innovative in finding alternative ways of

performing the required job, with a limited number of resources. The purpose of the exercise is to let people re-define themselves the true meaning of innovation. Through the exercise, employees will part themselves from the misconception of innovation as an act of creating or constructing big things, limited to a selected few within the organization. Rather, employees will realize that innovation is also finding new ways to perform a required job efficiently with limited resources. People will learn, first hand, that in a highly employee involvement-oriented environment, employees are allowed to put their creative abilities to work freely in favor of innovation.

- Meet with middle management, explain the program and activities that will be taking place and obtain their feedback.
- Meet with the “focal group”, explain the company’s intention to implement this project and obtain their feedback. Hand out the “Creativity Questionnaire” and “Innovation and Creativity Exercise” to the group.
- Allow some time to go by, so that employees from the “focal group” spread the word among other manufacturing employees about the company’s intention to carry on with this project. This will create expectation and enthusiasm among employees.
- Conduct meetings with all manufacturing area supervisors, explain the program and obtain their feedback. Supervisors are extremely important in the implementation of the proposed program. Supervisors are the management representatives closest to the people who will be mostly impacted by the program. They will be provided with the “Creativity

Questionnaire” which they will administer to their subordinate employees after explaining to them the innovation program to be implemented.

- Coordinate with area supervisors a common date to administer the “Creativity Questionnaire” to employees. Agreeing upon a common date will catch employees unprepared and reduce the probability of survey results being biased by their previous knowledge about it.

Creativity Questionnaire

The “Creativity Questionnaire” used for research purposes of this project was derived from an un-copyrighted version published through the Internet by *Trans4mation*[®] (www.trans4mation.com), a UK-based management consultant company dedicated to the transformation of organizational attitudes and behaviors. Company X’s management adapted the questionnaire to match the company’s particular environment. It consists of ten statements to which employees must mark an answer ranging from zero (0) to four (4), depending upon their degree of agreement with the proposed statement. The answer score is distributed as follows: 0 – totally disagree, 4 – totally agree.

The statements within the questionnaire are strategically divided so that half of the statements relate to the employee’s perception of personal creative traits and how he/she uses them. The remaining half of the statements in the questionnaire pursues to measure the employee’s vision of himself/herself within the organization, in relation to the organization’s usage of employees’ innovative capabilities.

The questionnaire was administered in Spanish, being the language spoken by employees at Company X. A copy of the original version downloaded from the *Trans4mation*[®]'s website is shown on *Appendix A*. Copies of the adapted questionnaire for Company X's use in English and Spanish are shown on *Appendices B* and *C*, respectively.

Innovation and Creativity Exercise

Faced with the concern that a pilot program of this project should be in place early the next calendar year, Company X's management decided that the focal group where it is to be piloted be exposed to some type of exercise that would awaken their interest into the project towards year-end, 2005.

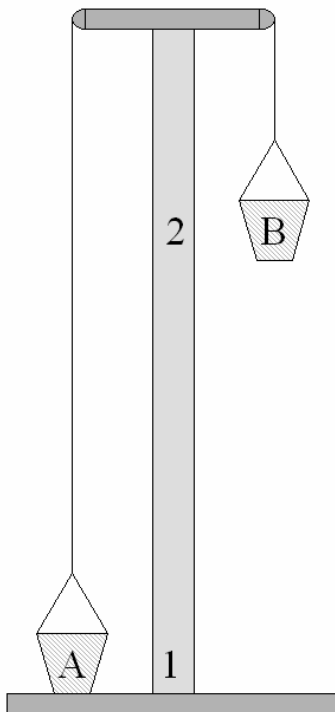
Management thought that the idea presented on the original project proposal about carrying out an activity, for "fun", where employees were taken out of the working area and being asked to solve a challenge and compete among each other, was a magnificent way to promote the program. Given the time constraints and the complexity of organizing an activity of such scale, management proposed to design a single exercise where employees were faced with a similar challenge but simple enough to fit in a twenty-minute's worth of meeting time.

Management's idea consisted in meeting with employees from all three work shifts of the focal group, explaining the company's intention of implementing the program, obtain their feedback, distribute the aforementioned

“Creativity Questionnaire” and, finally, conducting the “Innovation and Creativity Exercise”; all in an hour and a half of meeting time.

The innovation exercise’s design was a simple one where employees were to be divided in two teams of three each and presented with a recreation of a manufacturing operation. Both teams would be given a wooden mockup of the process being recreated, a sheet of instructions titled “Innovation and Creativity Exercise” with a description of the challenge to be overcome, and a limited amount of materials to solve the challenge. The innovation exercise and the instructions to be provided were designed in such a way that employees would

Exhibit 4: *Wooden mockup presented to employees through the “Innovation and Creativity Exercise”.*



feel they were actually trying to improve a real manufacturing process to which they are daily exposed.

The wooden mockup, shown on *Exhibit 4*, and the accompanying instructions to be presented to employees describe a situation where, on a given manufacturing operation, two operators at positions “1” and “2” each, continuously need materials from each other in order to continue both with their normal operating tasks. Operator at “position 2” needs a new, empty container and operator at “position 1” needs three nuts to carry out their respective jobs. The main constraint presented, however, is that both

employees need these materials from each other in intervals of no less than three minutes.

To carry out this challenge, employees are provided with a recreation of the actual infrastructure that the imaginary operators are using; in this case, represented by the model on *Exhibit 4*. This model is a representation of a plant section where an operator on a second floor and an operator on a first floor are both carrying out different tasks. Since both need materials from each other in order to continue with their normal duties, “the plant” has provided them with a pulley system running between both floors that, at any given time, will have containers at both ends of the system. These are depicted on *Exhibit 4* as containers “A” and “B” and physically represented on the model through the use of paper cups.

Employees to whom this exercise is administered will be provided with a set of materials with which they are to overcome the challenge posed in front of them; how to make both imaginary operators obtain their respective materials in no less than three minutes. Employees will be given the following materials in order to overcome this challenge: water, nails, nuts and paper cups. They must solely rely on the written instructions and description of the challenge given to them and no questions will be answered. Fifteen minutes will be granted to experiment and try out the best team solution to the challenge, after which, the teams will demonstrate their corresponding solution in action.

Copies of the original English and Spanish versions of the “Innovation and Creativity Exercise” are shown on *Appendices D* and *E*, respectively.

4. Findings

This section shows a detailed description of the findings of some of the previously identified events that needed to be executed for the implementation of the employee involvement program proposed by this paper. The execution of these preliminary steps had taken place over the course of a five-month period during which a major milestone had been achieved, spreading the word out among employees that Company X is at last interested in formally establishing a program to seriously take in consideration their ideas.

After these events had taken place, whose results are discussed below, there had been a later event that could change the implementation of the proposal presented on this paper. At the same time that these events had been taking place, new company directors commissioned a separate group to study the implementation of some form of employee involvement program. This group had submitted some recommendations for the implementation of an idea management program in the form of an “idea suggestion box”. A brief discussion of this event and of the proposal offered by this commissioned group is presented towards the end of this section.

4.1 Results of meeting with middle management

Company X's upper management met with middle staff management towards the end of year 2005. On this meeting, the proposed employee involvement program was presented and discussed on its essence to the group of managers, exactly as it was originally presented to upper management.

Just as the company's upper management had predicted, half of the middle management's staff was skeptical and doubtful about the success of such an effort. Most of them expressed their grief for the ever increasing burden upon their shoulders driven by marketing and scheduling pressures; not to mention ever increasing quality responsibilities being delegated upon their respective process areas as part of the company's effort to incorporate principles of "lean manufacturing" on its daily processes.

The main concern for middle management was not necessarily lack of willingness to go along with any strategy adopted by the company in relation to improving employee morale and involvement. Rather, their uneasiness relied on the possibility that their early commitment to the program would lead to lack of consistency and eventual abandonment, when faced with the ever-increasing work pressures. This reaction is consistent with previous literature research, which has identified hesitation towards employee involvement programs by management due to day-to-day work pressures (Bessant 2003, 33-41) (Reade 2004, 1). In their opinion, the program would demand too much of either their own time or of the already tightened production time. According to them, given this scenario they would eventually be forced to abort the program, leading to more employee discontent.

Upper management refuted these arguments stating that recent employee surveys demonstrate that the company's workforce is increasingly becoming concerned about the limited level of participation they are allowed in decision-making. It was also pointed out that over the years, prospective candidates for employment, even to hourly manufacturing positions, have at the least a higher degree education in their curriculum. It was also reminded to them that this is why the company raised the minimum requirements for such positions in recent years.

Therefore, if the company is prepared to hire new employees with higher-degree education to bottom-line positions, it should also be prepared to accept the fact that they will also be willing to apply their knowledge at work. For this reason, the company should have the mechanisms at hand to allow these people to come forward with new, fresh ideas that would improve the way things "have always been done". Upper management stressed that, to incorporate a program of this kind, there should be commitment from all management levels in moving away from the misconception that processes must stay the way they "have always been done". Management staff must be prepared to accept innovation from any possible source and distance itself from the paradigm that improvements can only come from a selected few within the organization.

In the end, upper management obtained middle management's commitment to the program after a detailed explanation of the program's dynamics and a large discussion with the managers' group about the eventual benefits in quality that could be obtained from it. It was argued by upper management that improvements to processes coming from those executing the work itself is the best source to alleviate the increasing quality responsibilities being given to manufacturing areas, which managers themselves have

been so ardently regretting. This is the point at which middle managers saw an opportunity for commitment amid all the scheduling pressures from day to day.

4.2 Results of meeting with the “focal group”

During the last days of 2005, Company X’s upper management coordinated a meeting with a “focal group” that was identified as the control group with whom the innovation competition program would be piloted. Employees of all three working shifts from one particular manufacturing area composed this “focal group”. The area was previously selected based on recommendations of the company’s upper management when the program was originally presented. According to the original recommendation, the program should be piloted in an area whose manager shows the most sympathy for employee involvement.

The meetings, two one hour and a half time allocations, were coordinated with employees of two work shifts each from the “focal group” (third-shift employees could not be allocated to these meetings at the time). The meeting agenda was a simple one. At first, upper management explained the company’s intention to implement an employee involvement program, based on an innovation competition, different from the traditional suggestion box programs that had been tried in the past. The agenda allocated some time to gather and discuss the employees’ feedback on the idea. Next, the “Creativity Questionnaire” (*Appendix C*) was given to and discussed with employees. Finally, employees were presented with the “Innovation and Creativity Exercise” (*Appendix E*), which was executed towards the latter portion of the meeting.

The results of both of these meetings were surprisingly positive. In general, both groups reacted at first with skepticism and reluctance, explaining that this is more of the same old promises that have been done in the past and eventually died out. They expressed their concern that, over the years, the organization has kept them aside whenever new ideas had been suggested for improvements in their working areas.

The most common complaint heard between both groups was that every time improvements had been successfully implemented in their area, someone from the Engineering department gets all the credits and awards for ideas that had been suggested over and over by different employees. They were just afraid that this innovation program would still leave them aside in the process of generating improvements that would ease their daily work and obtain greater efficiency.

The company's upper management explained in detail what was to be expected from employees under this new program. At the same time, management made a commitment that this program would be responsible for providing the means through which employees not only would suggest ideas but also execute them and prove them right. This assurance re-animated the employees' morale instantly and, at that moment, they became more interested in the details of the program.

An interesting point about the discussion held with these employees is that, in general, they expressed that during the last year they had sensed an improvement in the way their ideas are being heard and taken in consideration. When asked about the root cause to this general feeling, they all agreed in that their new manager has brought about new styles they had never experienced before in relation to involving them in the decision-making process. They declared feeling with more liberty to express their

concerns and suggest their ideas because they know that their manager would take them seriously. This confirmed the rightfulness of selecting this group as the ideal one for piloting the innovation program. This is clearly a group that would easily spread the enthusiasm among the remaining part of the employee population.

4.3 Results of the Creativity Questionnaire

The “Creativity Questionnaire” was distributed among members of the “focal group” and, at a later date, among the remaining part of the Manufacturing department’s population, totaling a quantity of sixty-three (63) answered questionnaires. The results of the questionnaire yielded some interesting numerical results that will be discussed as follows.

Questionnaire total scores offered four possible score rankings. (Score ranking descriptions detailed on *Appendix B*). The ranking distribution and the corresponding results are:

- Below 20 (27%)
- 20 – 24 (25%)
- 25 – 29 (29%)
- 30 – 34 (11%)
- 35 – 40 (8%)

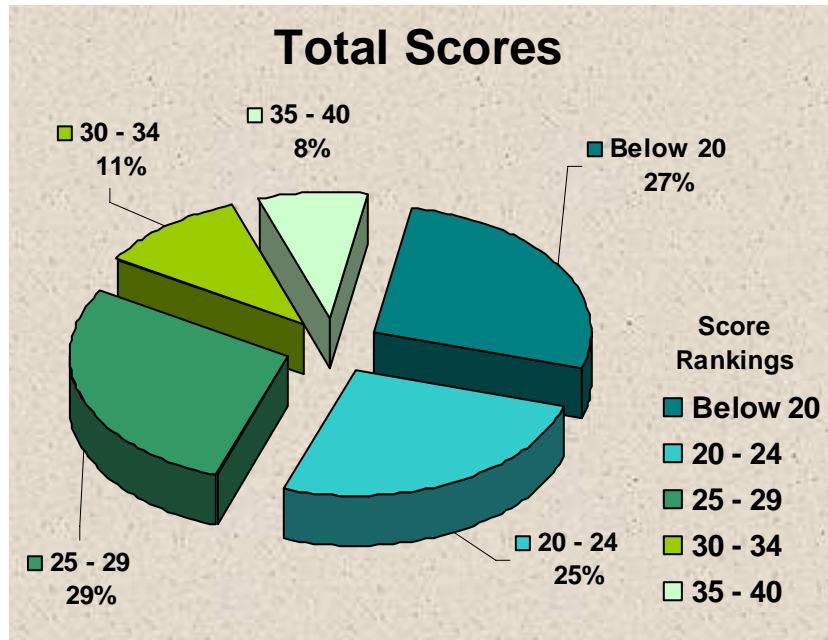
The distribution of total scores among all answered questionnaires is shown on *Exhibit 5*. As can be seen from the total score distribution, the major portions of the surveyed population yielded score rankings of 20 or less (27%), 20 – 24 (25%), and 25 – 29 (29%).

The closeness of the percentages of all three major rankings clearly shows that there is general agreement in that Company X does not have an environment with the necessary tools to promote the acceptance of new ideas coming from employees.

At the same time, it is interesting to note that, out of these three rankings with greatest percentage, the middle one 25 – 29 (29%) is the highest. This ranking defines that employees do recognize the existence of some form of idea recognition program within the company. Yet, the program needs to be transformed to a more competitive one. This confirms the fact previously declared on this paper in relation to Company X's existing reward and recognition program. The current program is one on which employee recognition solely depends upon willingness and initiative from any employee to recognize a peer or subordinate for an exceptional execution. There is total absence of a program that systematically leads towards a final submission for employee recognition through the existent rewards and recognition program.

The remaining two score ranking options of 30 – 34 and 35 – 40 received significantly lower percentages than the upper three, 11% and 8% respectively. These show rare exceptions to the answers provided by the majority of employees. Based on the distribution of statements in the questionnaire, focusing the first half towards the employee's perception of personal creative traits and the latter one towards the employee's opinion about the working environment in relation to creativity, those who answered in these ranking ranges might consider themselves highly creative and innovative and are either pleased with or indifferent to the organization's policies for handling employee creativity.

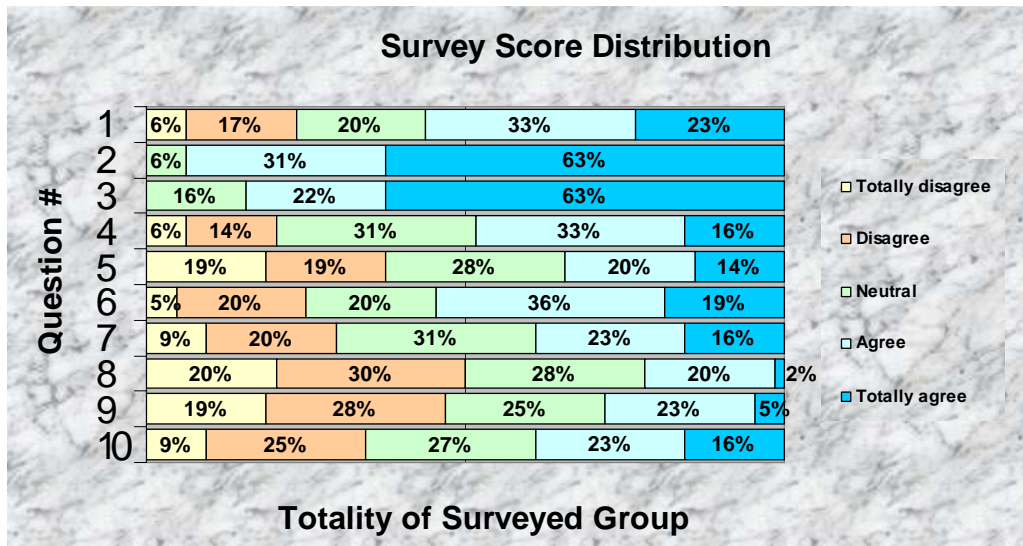
Exhibit 5: “Creativity Questionnaire” Total Scores



Another interesting set of results is observed on *Exhibit 6*. The graph shown on *Exhibit 6* is a representation of the distribution of employee answers per statement within the questionnaire. Due to the strategic division of focus on the questionnaire statements, it is almost predictable that user answers would lean more towards the “totally-agree” side on statements that address their personal view of their own creative abilities. Likewise, it could be predicted that users would most likely tend to answer towards the “totally-disagree” side on statements that address employees’ perception of the working environment.

This is precisely the general tendency observed from the graph on *Exhibit 6*. Statements “1” through “6” generally show a greater answering percentage towards the “totally-agree” side than statements “7” through “10”. Similarly, the latter statements show an increasing percentage of answers towards the “disagree” side.

Exhibit 6: “Creativity Questionnaire” Survey Score Distribution



4.4 Results of the Innovation and Creativity Exercise

The “Innovation and Creativity Exercise”, conducted in the “focal group” through the same meeting at which the program proposal was presented to them, was an instant success. An instantaneous mood change was noted among the participants, who immediately grew curious about the wooden mockup of *Exhibit 4*, presented before them. Although an optimistic attitude permeated the environment among participants, the mood among them grew to enthusiasm and excitement when presented with the exercise. They were thrilled about being presented with a game recreating a situation that could easily be compared to those they are faced with in their daily tasks, the kind of situations about which they, and those before them, had been suggesting ideas in the past.

Although tempted to ask questions throughout the exercise, the participants followed the written instructions given to them, part of which was to limit exclusively to

Exhibit 7: Employee photographs during the “Innovation and Creativity Exercise”



the written instructions. As seen on *Exhibit 7*, they carefully studied and discussed the exercise among themselves and did every imaginable thing to solve the challenge.

Participants utilized all materials given to them at all times.

Perhaps, the most exciting part of the exercise was to see participants come up with different ways of solving the problem throughout the experimental time given to them to try out the best solution. What was even more interesting was that all of the participant groups, except one, missed

***Exhibit 7(Continued): Employee photographs
During the “Innovation and Creativity Exercise”***



Result: Approach adopted by the majority of teams.

one important part of the instructions. The instructions given were very specific about the fact that, whatever the solution to the problem, it should be one that requires as little human intervention as possible.

When originally designed, much thought was given to every imaginable solution participants could possibly come up with. A list of the several possible solutions that were thought about and the actual exercise result in relation to each follows:

1. The team could consume all of the competition time balancing out both containers in the model with the provided materials until both containers reached their final position.

2. The team could wait until the required three-minute interval was almost consumed and then physically drop three nuts on the container in the highest position, causing it to immediately go down, pulling up the container in the lowest position. *Result: Only one group came up with this solution.*
3. The team could load both containers in the model with water, loading the container in the highest position also with the three nuts required by the exercise. Then it could experiment by pre-drilling holes at different levels in the paper containers with the provided nails, leaving them inserted in the water-loaded containers. Next, they could remove the inserted nails and let the containers empty themselves until simple mass balance would eventually carry the container in the highest position to the bottom, pulling the other container up.
Result: No group attempted this solution.

Although originally thought of as a possibility, only one participant team came up with the simplest solution there could ever be for the challenge at hand; to drop three nuts into the upper container when the required three minutes were consumed. After all, this solution complied with the requirement of little human intervention, as defined on the exercise's instructions. In fact, during the design of the experiment, it was speculated that the majority of groups would either opt for the solution possibilities 1 and 3, listed above.

Surprisingly, no group opted for solution No. 3 which seems to comply with the little human intervention requirement. Instead, most groups consumed most of the granted experimental time balancing out both containers until they both reached their

final positions. At the point of carrying out the three-minute competition, they not only consumed but also exceeded the required time interval.

Independently of the best solution that could ever be found for the challenge posed by this exercise, its most important contribution is that it turned out to be a learning and mind-opening activity. The exercise fulfilled its mission, to create an environment of excitement that would allow people to see simple problems from another perspective, allowing them to think of different solutions for the same simple problem. Participant feedback was highly positive and enthusiastic. They even asked if another similar exercise could be carried out some time in the future.

Out of this experience, four conclusions could be drawn from the exercise:

1. Experimentation is powerful. It is much easier to find solutions to problems by practice than by theory alone.
2. An environment of excitement is created by the mere fact of modeling solutions. People feel more positive about finding solutions to their problems because they can be tested right away.
3. Simple problems surprisingly have many solutions.
4. Scale-modeling situations and solutions allow people to see the “whole picture” from another perspective. More solution ideas are conceived when situations are taken off their original environment.

4.5 Results of meeting with manufacturing area supervisors

Having concluded the year with the focal group's meeting and the accompanying "Creativity Questionnaire" and "Innovation and Creativity Exercise" conducted on them, a full month was allowed to go by. This elapsed time was no accident. It was actually planned for, as part of the previously defined methodology to conduct this research. When originally conceived, the idea of allowing this time to go by was expected to be a positive contribution in and of itself to the purposes of the employee involvement program that had been proposed. This extra time would allow the "focal group" to spread the word out to both their supervisors and to the remaining part of the population about the experience they had to the latter part of the previous year.

The idea had paid off. A full month after the meeting with the "focal group" a meeting was conducted with manufacturing area supervisors. The meeting had two purposes. One was to explain the proposed employee involvement program and innovation competition to them. The other was to provide them with the "Creativity Questionnaire" so that they could distribute it among their subordinate employees. Amazingly, some supervisors had an idea of the program or, of at least, the exercise that had been conducted recently. Evidently, members of the "focal group" had done as expected. They had spread the word out among their peers and supervisors.

When presented with the idea, supervisors seemed as excited as the "focal group" when the program was explained to them a month earlier. Supervisors commented that employees had long wished for this type of program. They themselves had wished that the company made an effort to create a system that would provide the tools, not only to

effectively manage and channel employees' ideas to reality, but also to reward them for their contributions to innovation.

The supervisor group was clearly much more excited about the program proposal than middle managers had ever been before. Different from middle management, who had been very skeptic when presented with the proposal, supervisors adopted an enthusiastic and optimistic attitude. This attitude is explainable. These are the people who are constantly in contact with the group of people who actually perform and see opportunities for improvement in their daily work processes. Therefore, it is understandable that they identify and ally themselves with operators, who are the ultimate target of this project proposal.

As a result of this meeting, commitment was obtained from supervisors to support and sponsor any effort made by the company to implement an employee involvement program of this kind. They offered any possible help they could contribute with and, even suggested ideas they had seen on similar programs from previous working experiences. Also, supervisors were crucial in obtaining real survey data through the "Creativity Questionnaire" discussed before.

4.6 New events

Up to the moment of closure of this paper, Company X had not been able yet to conduct the first competition phase of the program with the “focal group” as originally planned. Throughout the months spent in the development and implementation of the project proposal, Company X had undergone a major re-organization with new higher management staff. New management had been focused in addressing other priorities within the company and not necessarily those related to employee morale. These situations had contributed to a loss of the original momentum acquired by this proposal. In spite of these situations, the company’s upper management that originally committed to the efforts of this proposal had been enthusiastic and optimistic about its possibilities for success.

Surprisingly, at the closing stage of this paper it had been discovered that the new company’s higher management staff, those above the management staff who had served as sponsors for the proposal on this paper, had commissioned a task force to create an idea management program to be tied to the company’s existing recognition program. Curiously, this is the same management staff to which the program on this paper had been presented months before. The commissioned group produced recommendations for the implementation of an idea suggestion box. The old suggestion box, which had been tried time and time again and eventually abandoned at Company X, had been revived.

The proposal presented by this task force identified the following important traits:

- 1) the creation of an official form for idea submission;
- 2) the definition of rules for proper, timely feedback to every employee submitting ideas in no more than a month’s time frame;
- 3) the creation of a committee that will evaluate ideas and provide

recommendations; 4) allowance for employees could submit ideas about any subject; 5) availability of the suggestion box at all times for employees to drop their documented ideas; 6) monthly evaluation of ideas by a dedicated committee; and 7) establishment of rules to determine which types of winning ideas will be eligible for nomination on which types of rewards through the already existing recognition program.

Similarities and differences could be identified by comparing the characteristics of the newly proposed program, shown above, to the program proposed by this paper. In regards to similarities, several could be listed as follows: 1) quest for innovation coming from employees at all levels; 2) tying of the programs to the already existing recognition program at Company X; 3) requirement for the definition of rules going from the submission of ideas to the rewards that would be recommended for winning ideas; 4) requirement of an idea-evaluating committee; 5) requirement of some type of system for tracking ideas; and 6) requirement of timely feedback to employees who submit ideas.

Likewise, several differences can be pointed out from both programs like, for example:

1. The “innovation competition” proposed through this paper defines an interdisciplinary committee for evaluating ideas. The idea “suggestion box” program proposed by the commissioned task force does not define the area of expertise of those in the idea-evaluating committee.
2. The “innovation competition” program is a seasonal event whereas the “suggestion box” is an ongoing process.

3. The “innovation competition” pursues total employee involvement from idea conception to final realization. The employee’s involvement in the “suggestion box” program ends precisely there, at the suggestion box.
4. The “innovation competition” pre-defines the challenges against which ideas will be submitted. The “suggestion box” allows for submission of any type of idea concerning any field of expertise.
5. The “suggestion box” approach is likely to be more costly to the company since it has to maintain an infrastructure of resources dedicated to evaluate ideas monthly. Some of these ideas might not even be aligned with company interests, which gives way to more costs for time lost in evaluating them.

5. Summary and Conclusions

This paper has treated the topic of innovation management with a special focus on employee involvement, a movement successfully used by many global companies to seek for innovation from any possible source within the organization as a means to stay competitive. Literature research has shown that there are many good examples of global organizations using and benefiting from some form of employee involvement program. In these organizations, employees are the most important source for discoveries and innovations, almost as important as R&D groups, traditionally being considered as the only ones entitled to innovate.

In comparing the literature review to the findings of the research conducted at Company X on the topic of employee involvement, it can be pointed out that such innovation management programs are as unique as the organizations they are implemented in. That is, companies tend to mold such programs to their particular corporate cultures. Following this line of thought, just as other companies have used different forms of employee involvement programs, many approaches to some form of such a program have been tried out at Company X itself.

Several examples of such efforts at Company X could be mentioned. Employee suggestion box programs have been in place and failed in the past because of lack of commitment and consistency from management to sustain its supporting infrastructure; not to mention employee disbelief in such programs because of the absence of timely feedback on submitted ideas. Employee recognition programs have always been present but have suffered detrimental transformations. They had gone from the kind where recognitions were made public through big, organized events, to the kind where the

supervisor gives the award privately to the employee with no public recognition whatsoever, which turns out to be more de-moralizing to the employee than the award itself. Employee performance evaluation systems have incorporated core competencies that include initiative and innovation as medullar elements for employee performance, yet no tools are provided for supervisors to measure them evenly across the company.

Previous surveys conducted at Company X have shown that employees have a principal need for being heard and recognized by management. The employee survey conducted for the purpose of this research confirmed these results. Employees find themselves to be highly innovative in their personal lives but think that the organization does not encourage a competitive environment where their ideas are transformed to innovations.

All of the facts previously mentioned about Company X have one common denominator. There is an underlying belief at Company X, one that is not spoken about or recognized and which seems to have become part of its culture; that initiative and innovation are actually excluded from the expected competencies that the employee is being evaluated for. Otherwise, there would be appropriate mechanisms in place to measure them. The company lacks of a systematic approach to handle and reward employee ideas in such a way that they are transformed to innovations that benefit the company.

Although listing them as core competencies, initiative and innovation are not truly measurable by any means at Company X. This puts the company in a paradoxical position, one for which there are two possible solutions. Either it recognizes that there are no current means to measure employee initiative and innovation and exclude them

from its performance evaluation system, or make an effort to devise ways that truly measure them. If the latter is the selected option, then Company X first has to recognize this “hidden” negation of initiative and innovation, and be ready to undergo a cultural transformation that converts these competencies into philosophies it is willing to live by.

The outcome of the events executed as initial steps in the implementation of the program proposed through this paper show that there is fertile ground at Company X to set the foundations of an environment of increased employee involvement. The findings of the discussions held with bottom-line employees and their direct supervisors demonstrate a very important fact. The gross of the population is willing to “move-on” from the frustration of failed employee involvement attempts of the past. They are willing to give way to management’s good intentions of providing the opportunity to take their ideas seriously and transforming them into realities they can be a part of.

6. Recommendations for Additional Work

The new events that have developed at Company X, the commissioning of a group to develop some kind of idea management program, show that the company is willing to move in the direction of increased employee involvement. This is clearly a parallel effort to the “innovation competition” program described on this paper. Despite this, the “idea suggestion box” recommended by the commissioned group is still one kind of employee involvement program. In fact, it is a good kind of employee involvement practice that has been successfully implemented by many organizations.

However, if Company X decides to implement the “idea suggestion box” concept, it has to demonstrate that it has learned from the mistakes of previously tried and failed suggestion box systems. The latter statement is not a premonition of failure, but rather a word of precaution that would avoid even bigger morale problems, if employees sense that commitment to support the suggestion box system has failed. A general advice to the company, if such a system is used is summarized in one word, consistency. There has to be consistency in providing timely feedback for ideas submitted, in tracking ideas to avoid their duplicity, and of criteria used to accept or reject ideas.

Faced with the possibility to adopt either the “innovation competition” or the “suggestion box” options some general advices could be offered. The following is a list of recommendations that would equally apply to either model adopted by the company:

- The idea-evaluating committee should be interdisciplinary, allowing for broader evaluation of ideas from all aspects of applicability to the business.
- The greater the allowance for idea submission both in time and subject, the greater the idea tracking system that the company must maintain in order to give

credit to original creators of repeating ideas or to avoid situations in which acceptance is granted for certain ideas but denied for similar ideas. Some companies use specialized software packages developed just for this purpose. Company X is not even near to consider this possibility, so it will rely on a manual tracking system.

- Narrowing down both the subject area of coverage and the time frame through which new ideas are accepted is more cost efficient for the company. In the first case, the idea-evaluating committee members do not have to employ much of their already scarce time evaluating ideas that don't necessarily align with business needs at a particular moment. In the second case, the longer the company allows employees to submit ideas, the greater the infrastructure and the time needed to evaluate them and the greater the pressure to provide timely feedback to employees. Also, the shorter the area of coverage and time allowance for submitting ideas the easier it is to keep track of ideas, which ties in with the previous recommendation bullet. Some of the previous literature research for this paper offers points in favor of this recommendation (Lamont 2004, 14-15).
- Employee involvement should not end at the "suggestion box". The employee should be given active participation in the final realization of the suggested ideas.
- Whichever employee involvement program is finally adopted, management should consider applying the Pareto "80/20" statistical rule in favor of boosting employee performance and, in turn, benefiting the company, through innovation. Companies commonly use the Pareto rule to monitor and explain that eighty percent of errors are caused by twenty percent of all possible causes. Other

companies have extended this concept and changed its applicability towards areas from which it could truly benefit. It all starts by the company changing its perception of employee performance in such a way that it realizes that eighty percent of an individual's performance is attributable to twenty percent of the employee's efforts. If further, the company decides that this twenty percent effort should be employed in innovation, then the company has a good possibility of boosting employee morale and performance and, better yet, promoting an environment of innovation. Applying this concept should be as simple as allowing employees to freely use twenty percent of their weekly time to work on personally conceived ideas in benefit of the company.

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Appendix A: The Trans4mation Creativity Questionnaire

The Trans4mation Creativity Questionnaire
(abbreviated)

Creativity questionnaire					
Individual creativity					
Rate how far these statements are true of you, using the nought-four scale on the right. Four points means the statement typifies the way you are. No points means you do not agree at all.	Out of the question				That's absolutely me
	0	1	2	3	4
1. I'm not bothered when people contradict me – challenge is good, because it opens up new thinking.	0	1	2	3	4
2. I have learned a set of techniques to help me be more creative.	0	1	2	3	4
3. I see rules as a temporary guideline – I'm happy to throw them out.	0	1	2	3	4
4. When a meeting is called to find new ideas, they usually end with lots of possibilities.	0	1	2	3	4
5. There is an atmosphere of acceptance of ideas from everybody.	0	1	2	3	4
6. My organisation accepts that some new ideas will fall flat.	0	1	2	3	4
7. When we discuss ideas, we don't just skim the surface – we get to the crux of the matter.	0	1	2	3	4
8. I'm known as the one who'll come up with lots of ideas.	0	1	2	3	4
9. There are systems in place that actively encourage new ideas.	0	1	2	3	4
10. I work for an organisation that recognises creativity as an essential part of progress.	0	1	2	3	4
<i>Add up your total points.</i>	Totals				
Overall total					

Source: Trans4mation® (www.trans4mation.com)

Appendix A (Continued): The Trans4mation Creativity Questionnaire

Scoring

35-40	You are highly creative and practising your creativity. You need to look for ways to ensure that this continues, so that your whole team operates to the maximum creativity.
30-34	You are a creative person. There are some areas where you could be more so. Look at the You are sometimes creative and sometimes not. You can improve this by looking at the statements where you scored 2 or less, and focus on those.
25-29	You are sometimes creative and sometimes not. You can improve this by looking at the statements where you scored low. There are probably several of these, so decide where to focus your attention.
20-24	You need to be more creative, and there are several areas you can seek to do this. It may well be that the atmosphere doesn't particularly encourage new ideas, so there may be issues here, as well as in your particular skills.
Below 20	There are serious blocks in your creativity, and you need to address this. Look at the main areas where you scored low, and start with these.

Source: Trans4mation[®] (www.trans4mation.com)

Appendix B: Creativity Questionnaire for Company X (English version)

The following is a creativity questionnaire that is being administered for the purposes of a study being conducted on our plant. **It is not necessary to write your name on it for the information contained is completely confidential and of internal use.** Your most sincere answers will be of great importance for the completion of this study. **The compiled data will be exclusively used for this study, and will not form part of any employee file.**

Instructions:

Evaluate statements 1 – 10 shown below, as they apply to you, assigning a score to each using the scale at the right-hand side. A score of “4” means that you are totally in agreement that the statement describes you. A score of “0” means that you are in total disagreement.

Creativity questionnaire					
Individual Creativity					
	Totally Disagree			Totally Agree	
	0	1	2	3	4
1. I don't get mad when people contradict me or criticize my ideas.	0	1	2	3	4
2. In my personal life, I have learned some techniques that have helped me on being more creative.	0	1	2	3	4
3. I see procedures as guides to follow, but I think I can contribute with ideas to improve them.	0	1	2	3	4
4. At my workplace, I usually contribute with ideas, whenever a meeting is called upon to collect them.	0	1	2	3	4
5. I feel that my ideas are listened to on my working environment.	0	1	2	3	4
6. I think that my organization has implemented ideas given by employees.	0	1	2	3	4
7. When we discuss ideas in my working area, we don't just overview them, we look at them in detail.	0	1	2	3	4
8. On the working environment I am recognized as the one who always contributes more ideas.	0	1	2	3	4
9. There are systems in place to actively encourage the generation of ideas at my workplace.	0	1	2	3	4
10. I work for an organization that recognizes creativity as an essential part of progress.	0	1	2	3	4
Add your total scores	SUBTOTAL				
					TOTAL

Appendix B (Continued): Creativity Questionnaire for Company X (English version)

Key

35 - 40	You are a highly creative person who puts in practice your creativity. You need to find ways to assure this goes on in such a way that your whole working team operates at its maximum creativity level. Probably you are in a working environment that promotes creativity.
30 - 34	You are a creative person. But there are some areas on which you can be more creative. You can improve this putting more attention to those statements where you answered “2” or less.
25 - 29	You are sometimes creative and sometimes not. You can improve this placing more attention to those statements with low scores. Probably there are various, so decide which to focus on first. It is possible that the existent idea recognition program in your organization is good but could be improved to be a more competitive one. Place more attention to those statements where you answered “1” or “2”.
20 – 24	You need to be more creative and there are various areas where you can try to be. It could be that the environment around you does not promote new ideas. Place more attention to those statements where you answered “0” or “1”.
Below 20	There are factors that affect your creativity. You need to put attention into these factors. Look at those statements scored with “0” and prioritize them.

Appendix C: Creativity Questionnaire for Company X (Spanish version)

El siguiente es un cuestionario de creatividad que estamos administrando para propósitos de un estudio de nuestra planta. **No es necesario escribir su nombre en el mismo debido a que la información es completamente confidencial y será de uso interno.** Su sincera contestación será de gran importancia para completar este estudio. **Los datos recopilados serán utilizados para este estudio únicamente, y no formará parte de ningún expediente de empleado.**

Instrucciones:

Evalúe las expresiones 1 – 10 mostradas a continuación, según le apliquen, asignándoles una puntuación usando la escala a mano derecha. Una puntuación de “4” significa que usted esta totalmente de acuerdo que la oración lo describe a usted. Una puntuación de “0” indica que usted está en total desacuerdo.

Cuestionario de creatividad					
Creatividad individual					
	En Desacuerdo			Totalmente de acuerdo	
1. No me molesta cuando la gente me contradice o me critica una idea.	0	1	2	3	4
2. En mi vida personal he aprendido una serie de técnicas que me ayudan a ser más creativo.	0	1	2	3	4
3. Veo los procedimientos como guías a seguir, pero pienso que puedo aportar ideas para mejorarlos.	0	1	2	3	4
4. En mi trabajo, cuando se cita a una reunión para recoger ideas, usualmente apporto ideas.	0	1	2	3	4
5. Siento que en mi ambiente de trabajo mis ideas son escuchadas.	0	1	2	3	4
6. Pienso que en mi organización se han implementado ideas dadas por los empleados.	0	1	2	3	4
7. Cuando discutimos ideas en mi área de trabajo, no las vemos por encima, sino que las vemos en detalle.	0	1	2	3	4
8. En el ambiente de trabajo soy reconocido como el que siempre sale con muchas ideas.	0	1	2	3	4
9. En mi lugar de trabajo existen sistemas implantados para fomentar activamente la generación de ideas.	0	1	2	3	4
10. Trabajo para una organización que reconoce la creatividad como parte esencial de progreso.	0	1	2	3	4
Sume su total de puntos	SUBTOTAL				
					TOTAL

Appendix C (Continued): Creativity Questionnaire for Company X (Spanish version)

Clave

35 - 40	Usted es una persona altamente creativa y pone en práctica su creatividad. Necesita buscar maneras de asegurar que esto continúe, de tal forma que todo su equipo de trabajo opere en su máximo nivel de creatividad. Probablemente usted está en un ambiente de trabajo que promueve la creatividad.
30 - 34	Usted es una persona creativa. Pero hay algunas áreas en las que usted puede ser más creativo. Usted puede mejorar en este aspecto, dándole más atención a aquellas oraciones en las que marcó “2” ó menos.
25 - 29	Usted es a veces creativo y a veces no. Usted puede mejorar este aspecto poniendo atención a aquellas oraciones donde su puntuación fue baja. Probablemente haya varias de estas, así que decida en cuales enfocar su atención primero. Es posible que el sistema existente de reconocimiento de ideas en su organización es bueno, pero tiene oportunidad para ser mejorado a uno más competitivo. Préstele atención a aquellas oraciones en las que marcó “1” ó “2”.
20 – 24	Usted necesita ser más creativo, y hay varias áreas en las que usted puede buscar serlo. Puede ser que el ambiente que lo rodea no promueve las ideas nuevas. Préstele atención a aquellas oraciones en las que marcó “0” ó “1”.
Por debajo de 20	Hay factores que afectan su creatividad. Usted necesita prestarles atención. Vea las oraciones de puntuación “0” y déle prioridad a estas.

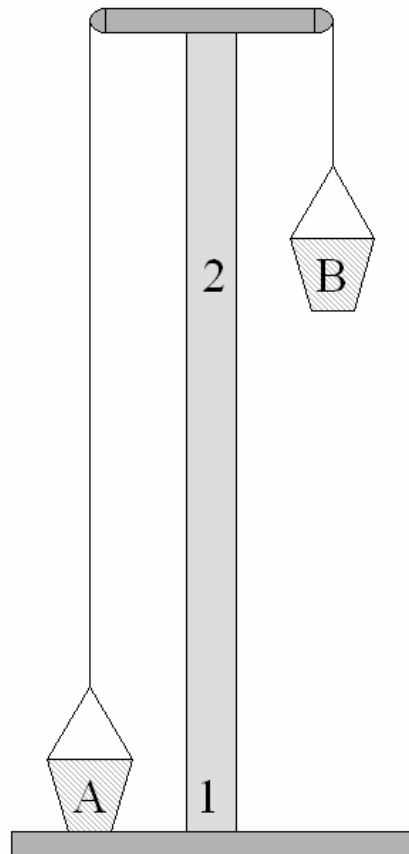
Innovation and Creativity Exercise

Instructions:

Consider the following situation:

In a manufacturing process, there is an operator on a first floor and an operator in a second floor. To carry out his/her work, operator on floor 2 needs a clean container available every three minutes. At the same time, operator on floor 1 needs three nuts in order to carry out his/her job; also every three minutes.

1. Use the model in front of you, as shown on the figure, to find a way in which operator at floor 2 could have a new container and operator in floor 1 could have three nuts in no less than three minutes.
2. You have 15 minutes to experiment and find the best way to execute the task.
3. While you experiment, you may use as much as needed of any of the provided materials, which are:
 - a. water
 - b. nails
 - c. nuts
 - d. paper cups
4. Whatever method you use to carry out the task, it should be one that requires as little human intervention as possible.
5. Cup **A** has to come up completely until cup **B** touches floor 1.
6. Cup **A** cannot come up in less than three minutes.
7. The winner team of this exercise will be the one that gets cup **A** to move up completely more closely to three minutes, after the three-minute period has been consumed.



Ejercicio de Innovación y Creatividad

Instrucciones:

Considere la siguiente situación:

En un proceso de manufactura trabaja un operador en el piso 1 y un operador en el piso 2. Para realizar su trabajo, el operador en el piso 2 necesita un contenedor limpio disponible cada tres minutos. A la misma vez, el operador en el piso 1 necesita tres tuercas para realizar su trabajo también cada tres minutos.

1. Utilice el modelo que tiene frente a usted, según mostrado en la figura para encontrar la manera de que el operador en el piso 2 pueda tener un contenedor nuevo y el operador en el piso 1 pueda tener tres tuercas en no menos de tres minutos.
2. Tiene 15 minutos para experimentar y encontrar la mejor manera de realizar la tarea.
3. Mientras experimente, puede utilizar cualquiera de los materiales provistos en las cantidades necesarias, que son:
 - a. agua
 - b. clavos
 - c. tuercas
 - d. vasos
4. Cualquiera que sea el método que utilice para realizar la tarea, debe requerir la menor intervención humana posible.
5. El vaso **A** tiene que subir completamente hasta que el vaso **B** toque el piso 1.
6. El vaso **A** no puede subir en menos de tres minutos.
7. El equipo ganador de este ejercicio será el que logre que el vaso **A** suba completamente más cerca de tres minutos después de haber transcurrido este tiempo.

