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THE FIVE PILLARS OF ORGANIZATIONAL EXCELLENCE

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ABSTRACT

Good is no longer good enough. To survive in today’s competitive environment, you need to excel. To excel, an organization needs to focus on all parts of the organization, optimizing the use of all of its resources and their effectiveness. This paper discusses the five elements that need to be managed for an organization to excel.

INTRODUCTION

The world is different today than it was yesterday and it will be still more different tomorrow than it is today. We live in a business environment that is traveling at near-light speed. The things that were impossible yesterday are being done today and will be obsolete tomorrow. The science fiction writers are having a difficult time dreaming up something that is outside the reach of our abilities to accomplish. Pages from science fiction novels are being cut and pasted into science textbooks. For example,

- Colonization of Mars

The most comprehensive plans to date have been created by the University of Houston’s Sasakawa International Center for Space Architecture (SICSA), whose director is Larry Bell. To create a foundation for sustainable Mars
program growth, Bell’s program has gone beyond developing a roadmap for creating the first colony and has set up a formal training program for the first generation of space architects. Bell feels that colonizing Mars will be relatively easy. The major problem he has is convincing NASA that chemical propulsion is obsolete. He told the *Popular Mechanics Magazine*, “We need a launch vehicle about eight times bigger than the shuttle. I happen to believe the systems we are using are dinosaurs. We have to move beyond chemical propulsion.”

- **Creating Dinosaurs**

Until recently we believed that, over the centuries, critical genes would be damaged or missing due to deterioration to the point that it would be impossible to reconstruct the original animal. Recently Belinda S. W. Chang, a professor at The Rockefeller University in New York City, solved the missing DNA problem by building an artificial gene. It is believed to be identical to one that existed in the eye of an archosaurus, the “ruling lizard” of 240 million years ago. The statistical analysis methods that she used in determining the DNA sequence of the ancient rhodopsin gene opens a whole new frontier in reconstructing ancient genes.

- **Synthetic Humans**

- Synthetic Humans
Within the next few years biomedical engineers will clear their final technological hurdle and hardwire sensors directly to the nerves. A typical example of the work going on in this area is at Sandia National Laboratories in Albuquerque, N.M., where a chip has been developed that will synthesize the eye's retina. This holds the promise of restoring sight to thousands of people.

- **Altering Gravity**

For years, “antigravity and gravity shielding” has been a favorite subject of the science fiction writer, but the professional physicists have turned their back on the concept, feeling it is impractical. The first step in tearing down these beliefs was accomplished by Ning Li, a former University of Alabama researcher, who was the first to successfully construct a super-conducting disc, which is essential in creating a gravity-altering force.

- **Teleportation**

James Kirk’s instruction to Scottie, “Beam me aboard, Scottie”, may be a reality in the future. Teleporting massless photons is now a reality. Transporting a single atom is the next exchange. Last summer Ping Koy Lam at the Australian National University reached a major milestone in this objective. He successfully transported a beam of light.

We need to start thinking differently. The word *impossible* needs to be stricken from our vocabulary. Thinking outside of the box is not good enough; we need to tear down the walls of the box and build a wall-less culture.

Our workforce is becoming more mobile. Organizations are cutting back by outsourcing all but their core capabilities and competencies. Business offices are shrinking as increasingly large numbers of people are working out of their homes.

Times have changed and our thinking about the way we manage our improvement activities has to change. Good is not good enough. Only are very best will attract customers in today’s competitive environment. Producing excellent products will not “cut the mustard” today. We have to excel in all parts of our organization. Piecemeal approaches like TQM, Six Sigma, CRM, etc., have to give way to a holistic view of the organization and its improvement efforts. You have to have an organization that "wows" the
customer, not just satisfies them. Customers remember your company’s name under two conditions and under two conditions only.

- First, if you produce extremely poor product or service
- Second, when you produce exceptional product or service that really sets them back on their heels and makes them say, “Wow! That was a great experience”.

If you meet their requirements, you do not build loyalty. Your customers can be attracted away from you if your competition undercuts you by a few cents. You have to have an organization that radiates excellence in everything they do. For the last fifty years, the quality professional has tried largely unsuccessfully to impose quality systems on business, government, and academia.

- Quality Control Failed
- Total Quality Control Failed
- Zero Defects Failed
- Total Quality Management Failed, and
- Six Sigma is failing

The question is, “Why do we have great spurts of success and then these sound quality systems slink back into oblivion?” They are a lot like the old doll that gets put back in the dark corner of the closet when the new doll is found under the Christmas tree.

This exercise in futility stems from applying quality initiatives like bandages to an organization when what’s really needed is fundamental organizational change. Treating symptoms usually doesn’t affect a cure.

I believe that the problem was caused because we made the initiatives separate activities, which were applied to the organization, and what was really needed was organizational change.

It was a lot like going on a 1,200 calorie diet to lose 20 pounds and then going back to your old eating habits, where you quickly gain back 30 pounds. (Take it from me, I know.) Organizational Excellence is designed to permanently change the organization by focusing on managing the five key elements of the organization. Each of these five organizational elements is not new by itself. The key to Organizational Excellence is combining and managing them together. We call the methodology that provides a holistic approach to improving the organization’s performance, “Organizational Excellence”, which is supported by five pillars that must be managed:

- Process Management
- Project Management
- Change Management
- Knowledge Management
- Resource Management

We need to manage our processes and continuously improve them for they are the way we do business. We need to manage our projects for that is the way we obtain major improvements in our processes and today, most organizations are doing a very poor job of project management as demonstrated by the high failure rate of projects. We need to manage the organization so that it is prepared for the chaos that it is being subjected to due to the magnitude and quantity of changes that must be implemented. We need to manage the organization’s knowledge that is the organization’s most valuable asset. It is the organization’s knowledge that gives an organization its competitive advantage. We need to manage our resources and assets for they drive our business results.
By effectively managing these five key elements and leveraging their interdependencies and reactions, an organization can bring about a marvelous transformation within itself. An organization will come out of its cocoon, which had been restricting its potential, and become a butterfly that will float on the breeze of success and organizational-wide self-fulfillment.

"If you don’t have your process controlled, its output is a matter of luck."

Organizational excellence is designed to permanently change a company by focusing on five important business elements. Learning to manage them together is the key to success in the endless pursuit of improved performance. In this section I’ll discuss the first key business element: process management.

The process management concept certainly isn’t new to quality professionals; it’s the basis of most improvement methodologies. A process is a series of interconnected activities that take input, add value to it and produce output. It’s how organizations do their day-to-day routines. Your organization’s processes define how it operates. The following is a simple process model. (See figure 1.)

![The Process Model](image)

**Figure 1. The Process Model**

In order to manage a process, the following must be defined and agreed upon:
An output requirement statement between process owners and customers
An input requirement statement between process owners and suppliers
A process that's capable of transforming the suppliers' input into output
that meets the customers' performance and quality requirements
Feedback measurement systems between process and customers, and
between process and suppliers
The process must be understood
A measurement system within the process

These six key factors should be addressed when designing a process. However, the problem facing most organizations is that many of their support processes were never designed in the first place. They were created in response to a need without really understanding what a process is.

**The Two Approaches to Process Management**

There are two basic approaches to managing processes. They are:

1. The **Micro-level Approach** that is directed at managing processes within a natural work team or an individual department.
2. The **Macro-level Approach** that is directed at managing processes that flow across departments and/or functions within the organization.

Both of these approaches are good and a combination of both of these approaches should be used in most organizations.

The micro-level approach provides a very personal understanding of the process; it focuses on the key measurements that the employees are involved in, down to the task level. It is a very comprehensive approach and builds process ownership throughout the organization. It is an excellent approach when you are focusing on continuous improvement within the process. The disadvantages of the micro-level approach are it is directed at the sub-processes within an area and can lead to sub-optimization within the overall process.

The macro-level approach looks at a process from the total organization’s standpoint. It usually focuses just on the key business process that flows across different functions within the organization. A typical organization will have between 20 to 40 macro processes. Process management of these macro processes is a degree harder than for micro processes, not only due to their increased complexity but also because in most organizations no one person is responsible for the overall performance of the macro process.

**The Micro-level Approach to Process Management**

The micro-level approach to process management is the most universally used approach. It is based upon the belief that the employee, who is doing the job, has the best understanding of the job, and as such, is in the best position to improve the process. The micro-level approach is directed at how the people, who work in a natural work team (NWT) or in a single department, interface with each other, their customers, and their suppliers to conduct the duties assigned to the group. It is an approach that brings together a group of people into a tightly knit team. It has the advantage of acquainting everyone with the work that the group is performing and the problems that the group is facing. Too often, organizations have trained people to do problem-solving approaches like,

- Brainstorming
- Checksheets
- Error-proofing
- Flowcharting
- Function Diagrams
Then, when the training was through, they turned the individuals loose to find problems to solve. Often this approach led to extensive effort being expended on items that had little or no impact on how the organization performs. The advantage of the micro-level approach is that it establishes a set of measurements and performance standards that allow the natural work team to focus its continuous improvement effort on real problems that have a positive impact upon the organization’s overall performance.

The best methodology I know to overcome these problems is called Area Activity Analysis (AAA). The AAA methodology is an effective approach used by natural work teams to define the key processes they’re using. AAA defines:

- The natural work team’s mission
- The natural work team’s major processes
- The customers for each major process and agreed-upon output specifications
- The suppliers for each major process and agreed-upon input specifications
- The internal process that converts input into output
- Efficiency measurements for the process
- The measurement system

Dividing these elements among the natural work teams reduces the effort required by any one group and puts the process understanding in the hands of those who work with it.

The Macro-level Approach to Process Management

The macro-level approach focuses on the major processes that drive the organization and the ones that are considered core capabilities and/or competencies. Usually, most of the manufacturing processes are included in this category, but it is not limited to manufacturing processes only. In fact, in today’s knowledge era the processes that involve and support the knowledge worker are often more important than the manufacturing processes.

The approach to managing the macro-level processes is called the “Fine Methodology”; it contains three phases:

- Phase I - Define the process
- Phase II - Confine the Process
- Phase III - Refine the Process

Phase I - Define the Process

During Phase I the organization needs to identify the processes that are going to be managed at the macro-level and understand how they fit into the organization’s structure. Phase I contains eight steps. They are:

- Step 1—Identify the macro-level processes.
- Step 2—Identify the process owners.
- Step 3—Identify the process analysis team.
- Step 4—Prepare a process mission statement.
- Step 5—Boxing in the process.
- Step 6—Define the process customer and related measurements.
- Step 7—Define the process supplier and related measurements.
- Step 8—Define the process efficiency measurements.

Phase II - Confine the Process

In this phase the process team will qualify the process. They will gain a detailed understanding of the process and what it is capable of performing. It involves the following steps:

1. Prepare flowcharts of the process.
2. Perform a process walkthrough.
3. Evaluate the process paperwork.
4. Characterize the process activities.
5. Install the measurement systems.
6. Qualify the process.

So, what's required to manage macro-level processes? You must:

- Prevent errors. A process must be designed to make it difficult, if not impossible, to create mistakes.
- Understand the capabilities of each activity within the process to produce acceptable output on schedule. This can be accomplished through process capability studies.
- Identify negative changes in the process so they can be corrected before the process goes out of control. Control charts do this well.
- Ensure that new people are trained before they become involved in the process.
- Ensure that the documentation is being followed.
- Detect errors resulting from activities that are incapable of producing acceptable quality levels.
- Report detected errors.
- Define the root cause of errors and initiate a process to eliminate them.
- Obtain customer feedback that defines process errors so that the process can be improved.
- Develop ongoing feedback to your suppliers about their output’s acceptability and obtain their plan for eliminating unacceptable input to the process.

As you can see, when it comes to managing it, a process is almost like a small business. All processes should be designed, documented, measured and controlled. This is as true of a chip-manufacturing process as it is of hiring or accounts payable processes.

Phase III - Refine the Process

Now that the process is qualified, it is time to start refining the process, continuously improving it from good to excellent. During Phase II most process teams have collected a parking board (list of items that need to be addressed at a later date) full of good ideas and improvement opportunities that are now ripe for harvesting. Most of the work that quality professionals do is related to continuously improving our processes. Some of the tools we use include design of experiments, process capability studies, root cause analysis, document control, quality circles, suggestions, Six Sigma, Shewhart’s circles, ISO 9000, just-in-time manufacturing and supplier qualification, among many others.
Refining the process is an ongoing activity. If the refinement process is working as it should, the total processes’ efficiency and effectiveness should be improving at a rate of 10 to 15 percent a year. In most cases the process team focuses on the broad problems that reflect across departments and reap this harvest within two to three months. At that time the process team can be disbanded and the process refinement activities turned over to the natural work teams that are involved in the process. The AAA methodology that was discussed earlier in this paper related nicely the NWT’s approach to process refinement.

Because the NWT’s efforts are focused on sub-processes, there is some exposure to sub-optimization occurring. For this reason, the process owner should still monitor the total process, using the established measurement system. If sub-optimization, new cross-functional improvement opportunities occur, or the process stops improving at an acceptable rate, the process owner should step in to get the situation addressed.

IBM reported that by focusing on their processes and working with their suppliers, “Between 1997 and 2001, the hardware reliability of our high-end servers improved by more than 200% while computing power increased by a factor of four.”

PROJECT MANAGEMENT

“Processes define how we operate.

Projects are the way we improve our processes.”

Processes define how organizations function and projects are the means by which organizations improve those processes. A project is defined as a “temporary endeavor undertaken to create a unique product or service”. Project management is defined as the “application of knowledge, skills, tools, and technology to project activities in order to meet or exceed stakeholders needs and expectations from a project.”

Well, that seems simple enough, it can’t be so simple or we would be having better results from the projects that we are funding. The Standish Group International reports,

“Corporate America spends more than $275 billion/year on Application Software Development Projects, many of which will fail due to lack of skilled project management.

- Only 26% of projects were successful (on-time/on-budget)
- 40% of all IT projects fail or are cancelled
- $75 billion spent by US firms on cancelled projects each year
- 26% of projects will cost 189% of their original estimate
- Over 60% of the projects do not produce the projected R.O.I.”

The Wall Street Journal reports, “…the average cycle time for IT projects are 27 weeks. The ones that are cancelled are cancelled after 14 weeks; at that point in time they are 52% complete. Many of the project teams know that the project is likely to fail 6 weeks before it is cancelled.”

The Gartner Group reports, “In a 4-year period an application development organization of 100 developers can expect to spend more than $10 million on cancelled contracts”.

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Let’s look at an example, the Hubble Telescope - the $1.5 billion blunder. During its first six months of operation, four tons of repair parts costing $100’s of millions were sent into space.

Is this one of a kind? No. NASA’s Space Station Freedom originally was budgeted for $8 billion; it is now up to $32 billion and climbing.

Projects in most organizations are mission-critical activities and delivering quality products on time is non-negotiable. Even in IT projects, things have changed. The old paradigm was, “Get it out fast and fix the bugs as the customer finds them” - the Microsoft approach. The new paradigm is, “Get them out at web speed/error-free.” The benchmark organizations are completing 90% of their projects within 10% of budget and on schedule. Information Systems organizations that establish standards for project management, including a project office, cuts their major project cost overruns, delays, and cancellations by 50%. Carol Wright, head of IBM’s Project Management Center of Excellence reports, “IBM has seen its project success rate improve since it implemented more structured project management training seven years ago.”

Process Redesign and Process Reengineering are two of the most important projects that organizations undertake. These types of projects have a failure rate estimated to be as high as 60%. There are two main causes for these high cost failures: poor project management and poor change management. IBM launched eleven reengineering projects that started from the way they manage internal information systems, to the way they developed products and serve customers. IBM reported, “We have reduced IT spending by 31 percent for a total savings of more than $2 billion. Since 1993, cycle time for large systems development has been slashed from 56 months to 16 months today. For low-end systems, it’s seven months - down from two years.”

**Why Projects Fail**

Let’s look at why projects fail.

1. Failure to adhere to committed schedule caused by:
   - Variances
   - Exceptions
   - Poor planning
   - Delays
   - Scope Creep

2. Causes of poor resource utilization:
   - Proper skills not available
   - Poor time utilization
   - Misalignment of skills and assignments

3. The portfolio of projects were not managed correctly:
   - The wrong projects selected
   - High risk projects were not identified
   - Poor control over interdependencies between projects

4. Loss of intellectual capital/knowledge capital:
   - Lack of the means to transfer knowledge
   - People leave the organization
5. Not preparing the people who will use the output from the project (change management)

Poor project management is one of the biggest problems most organizations face today. It is, therefore, surprising that the quality professional has not addressed what can be done to improve the quality of the project management process. Even ISO 9000 ignores this critical issue. The quality of an organization’s project management process is key to the organization’s success in our knowledge-driven economy.

The Professional Project Manager

I liken project management to quality management; everyone thinks they know what quality is so anyone can manage quality. This same thought pattern applies to project management, but just as a quality manager is a special type of professional with very special skills and training, so is a project manager. Project managers require skill, training, and effective leadership specifically related to project management. It is no longer enough to be able to manage a project; the organization needs to manage its portfolio of projects, selecting the ones that will succeed and have the biggest return on investments. This requires an effective on line reporting system that brings together all of the project status at least once a week, if not daily. The executive team also needs a history warehouse that allows them to compare each project that is proposed to actual costs and cycle time data from completed projects in order to define how accurate the estimates are. Management would not approve one third of the projects if they knew how long it was going to take and how much it was going to cost. As John Carrow, CEO of Unisys Corporation, stated, “The best time to stop a project that you don’t know is going to be successful is when you start it.”

Far too often a quality department will undertake a major project like Six Sigma, TQM, or Reengineering without having the necessary skills to manage a project. Basic tools like Work Breakdown Structure are not used. There is no risk analysis, let alone good mitigation plans. Is it any wonder that the failure rate in quality programs is so high?

The Project Management Body of Knowledge (PMBOK) defines 69 different tools that a project manager needs to master. Few of the project managers that I have come in contact with over the past fifty years have mastered all of these tools. Today there are a few --- very few project managers that are certified as project managers by their peers. As the American Express slogan says, “Don’t leave home without it.” As you start your next project, my suggestion is, “Don’t start it without a certified project manager.”
“Handling change is the biggest problem that most organizations face.”

Change, change, change - we are all for change. We want to see him change, her change, them change. We want to see the organization change. We want to see everyone else change. Yes, we are all for change as long as we don’t have to change, but it is a fact of life; we all are changing everyday. Our environment is changing, our culture is changing, and the way we work is changing.

Change is Hard

In Price Pritchett’s book entitled The Employee Handbook for Organizational Change, it states:

“It is pretty obvious to people that the stress of a rapidly changing organization can be difficult and unpleasant. What’s not so clear to us sometimes is how much trouble we’re in for if the organization fails to change.”

- Through 2005, 40 percent of global enterprises will wrestle with change initiative portfolios that exceed their capacity for change, resulting in failure rates in excess of 60 percent (0.7 probability).
- Through 2005, 75 percent of enterprises contemplating widespread change will fail to adequately consider their organizational ability and willingness to adapt, ignoring the root cause behind over sixty percent of initiative failures (0.8 probability).

As the Gartner Group states,

- “Research confirms that as much as 60 percent of change initiatives and other projects fail as a direct result of a fundamental inability to manage their social implications.
- This lack of understanding typically manifests itself in dysfunctional behaviors which, taken to an extreme, causes a downward spiral in organizational vitality and competitiveness - a spiral the organization can’t pull out of because it does not understand the cause.

The Change Management System

There are three processes that make up the change management system. They are:

- Defining what will change
- Defining how to change
- Making the change happen

In order to limit the size of this paper, we will only focus on the last process, “making the change happen”.

Human beings are extremely control-oriented. We feel the most comfortable when our environment is controlled, stable, and predictable and when our expectations are being met. In fact, the definition of the term status quo is “when expectations are being met”. We may not like the environment we are in, but we know it, we understand it, and we have adjusted to it. Change occurs when this balance shifts and expectations are disrupted. So change can be defined as “a disruption in your expectation”. When this happens, the four Cs take place. They are:

- Competence - You question whether you will be competent to exist in the
new changed environment.
- Comfort - You no longer feel comfortable because you do not understand what is going to happen to you.
- Confidence - You lose your confidence because someone else is defining what is going to happen to you.
- Control - You have lost control of the situation.

To minimize the disruptive impact that change has on the organization, a methodology called change management is used. Change management is defined as a “comprehensive set of structured procedures for the decision-making, planning, execution, and evaluation phases of the change process”. It should be used whenever a major project is undertaken by an organization.

Making the Change Happen

We can think of change truly as a process, just like any of the processes that goes on within the organization. It is the process of moving from a present state or as-is state through a transitional period that is extremely disruptive to the organization to a future desired state that someone believes is better than the as-is state. (See Figure 2.)

**Change is a Process**

**Pain Management** - One of the tools used in change management is called pain management and applies to the change process. It is easy to understand that an individual is not going to move out of the present state towards the future desired state unless, from his/her standpoint, there is more pain associated with the present state than the pain that he/she will be subjected to during the transitional period and the pain that will remain with him/her during the future state.

The other part of helping employees make the decision to accept change is related to painting a very clear vision of the future desired state. This vision has to address items like: What would the business processes look like? What are the technology, process, and the people enablers? People need to have answers to questions like,

- Why is this change necessary?
What’s in it for me?
Why is it important to my organization?
What is the downside to the change?

**Change Management Risk Factors** - There are eight risk factors that have to be managed during any major change initiative. They are:

1. Defining the cost of the status quo
2. Developing a clear vision
3. Obtaining sponsored commitment
4. Developing change agents and change advocacy skills
5. Understanding targeted responses
6. Aligning the change with the culture of the organization
7. Anticipating internal and external organizational events
8. Developing a sound implementation architecture.

The Gartner Group estimates that inexperience, overextension, or under-committed executive sponsorship will account for 50% of the enterprise change initiative failures. They also state that 75% of change leaders will employ one or more levers to help drive change without possessing even a rudimentary understanding of the implications, directly causing destructive organizational behaviors.

**Change Management Tools** - The change management methodology includes almost 50 unique tools. Some of them are:

1. Cultural Assessment
2. Landscape Surveys
3. Change Agent Evaluation
4. Change History Survey
5. Change Resistance Scale
6. Overload Index
7. Predicting the Impact of Change
8. Role Map Application Tool
9. When to Apply Implementation Architecture

Daryl R. Conner, author, lecturer, and the world’s leading authority on organizational change, states, “It is inadequate to manage just project cost, schedule, and quality. Without managing the project’s social impact, most projects will fail to reach their full potential.” And you will not reach your full potential.

In the report, “We Rewired the Enterprise”, IBM reported, “We came to realize that important organizational change also has to happen in a company’s social structure - in how people understand what is expected of them, in how they are rewarded and managed, in the way that ideas are shared. In order to deliver on our value proposition, we had to change the very nature of work.”

**KNOWLEDGE MANAGEMENT**

“When a person dies, a library is lost.”

We are living in a knowledge economy. The value of most organizations is defined by its intellectual capital, rather than by its physical assets, often by over 200%. The Mecca of organizations today is located in Northern California (Silicon Valley). Yes, knowledge is king. As Valery Kanavsky of HP states, “The fundamental building material of a modern corporation is knowledge”. All organizations have it, but most of them don’t know what they know, don’t use what they do know, and do not reuse the knowledge that they do have. In
today’s knowledge economy, knowledge is power and power brings success. The difference between failure, survival, and success is the way the organization uses its knowledge.

The Knowledge Era

Knowledge management (KM) is not new. Peter Drucker was talking about the “knowledge worker” forty years ago. He points out in “post-capitalist society” that the knowledge evolution has been divided into three eras:

- **Era One - Enlightenment**
  
  During this era knowledge was pursued for the sake of learning, to gain wisdom, and to obtain understanding. This was the period before the Industrial Revolution.

- **Era Two - Industrial**
  
  Knowledge was applied to invention of technology; it led to systematic and organized knowledge being applied to products.

- **Era Three - Knowledge**
  
  This era started about 1880 when Frederick Taylor introduced the scientific approach to organizing work.

In the 20th Century knowledge importance has expanded exponentially. Winston Churchill, sixty years ago stated, “The empires of the future are empires of the mind.”

The information published in the *New York Times* today is more information than the average individual would accumulate over a lifetime in the 17th Century. There is 1,000 times more information in that little 15” screen on my desk than there is the twelve bookcases filled with books in my library. In the 1950s organizations were searching for information. The amount of information available to the individual doubles every five years. Today organizations and their employees are drowning in information. No one has the time to sponge up the information relevant to their interests, let alone sort through the mountains of information that is available to find the relevant information. Successful organizations have made learning and applying it a core competency.

What is Knowledge?

*Knowledge* is defined as a mixture of experiences, practices, traditions, values, contextual information, expert insight, and a sound intuition that provides an environment and framework for evaluation and incorporating new experiences and information.

Knowledge is not like a tangible product. If you have five apples and you sell one, you have four left. Knowledge can be sold, given away, or traded and you still have the knowledge. In fact, the more you use knowledge, the more valuable it becomes, but it is also perishable. If it is not renewed and replenished, it becomes worthless. Yes, knowledge has a shelf life. An MBA who does nothing to renew his/her knowledge becomes obsolete within four years. Knowledge is always changing and this requires every organization to become a learning organization or become an obsolete organization.

There are two types of knowledge: explicit and tacit.
Explicit knowledge is defined as knowledge that is stored in a semi-structured content such as documents, e-mail, voicemail, or video media. I like to call this hard or tangible knowledge. It is conveyed from one person to another in a systematic way.

Tacit knowledge is defined as knowledge that is formed around intangible factors embedded in individual’s experience. It is personal, content-specific knowledge that resides in an individual. It is knowledge that an individual gains from experience or skills that he or she develops. It often takes the form of beliefs, values, principles, and morals. It guides the individual’s actions. I like to call this soft knowledge. It is embedded in the individual’s ideas, insights, values, and judgment. It is only accessible through the direct corroboration and communication with the individual that has the knowledge.

The Value of Knowledge

Knowledge management is defined as a proactive, systematic process by which value is generated from intellectual or knowledge-based assets and disseminated to the stakeholders.

The knowledge management methodology was developed so that intellectual capital can be managed as an organizational asset. Knowledge management is designed to capture and flow the organization’s data, information, and knowledge and deliver it to the knowledge worker that uses it on a day-to-day basis.

In one of Paul A. Strassmann’s regular columns in Knowledge Management Magazine, he provides a good insight to what the knowledge capital per employee runs in five well-known organizations.

<table>
<thead>
<tr>
<th>Company</th>
<th>Employees</th>
<th>Knowledge Capital/Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merck &amp; Co.</td>
<td>57,300</td>
<td>$1,423,916</td>
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<td>41,000</td>
<td>$261,847</td>
</tr>
</tbody>
</table>

In the past fifty years the world economics has been transformed from a production-based value system to a knowledge-based valued system. With this change technology’s ability to capture information and data has far outstripped people’s ability to absorb it. KMS helps the individual prepare for this constantly shifting demographics and customers’ needs by sorting through the masses of information and providing the individual with just the information needed to solve his/her problem or allow him/her to take advantage of the business opportunities.

Basic economics theory suggests that most assets are subject to diminished return, but this does not apply to knowledge. Knowledge assets, in contrast, grow in value, as they become a standard used by more and more people. When you sell a book (a physical asset), you lose it. Conversely, you can sell the same knowledge again and again. This is what economists call “the law of increasing returns.”

The Knowledge Management System (KMS)
Although in a learning organization everyone needs access to knowledge, most Knowledge Management Systems are designed around the core competencies of the organization. I recommend a six-phase approach to implementing a KMS. The six-phases are made up of 61 activities.

- Phase I - Requirements Definition (7 activities)
- Phase II - Infrastructure Evaluation (16 activities)
- Phase III - KMS Design and Development (12 activities)
- Phase IV - Pilot (15 activities)
- Phase V - Deployment (10 activities)
- Phase VI - Continuous Improvement (1 activity)

“Knowledge takes us from chance to choice.”

Peter Drucker coined the term “knowledge worker” over 40 years ago. Over the years interest has shifted away from the knowledge worker to knowledge management. Knowledge management has become the buzzword of the Knowledge Age. Jerry Ash, a senior counselor at the Forbes Group in D.C., describes his vision of the future workplace as “an environment without cultural, political, professional or structural boundaries, where workers and managers at all levels can think together, drawing on the rich and diverse backgrounds, training and work experience previously confined to information silos and narrowly defined jobs of the former Industrial Age.”

A KMS uses parts of all of kinds of systems. In fact, the biggest component of a successful KMS is the culture of the enterprise that is implementing it. Without a culture that is focused on being the best, most business focused, employee centric, and customer aware, the advantages of the KMS will be largely wasted. There is no one size that fits every need of any organization.

Knowledge management is about people, networking, connections, culture of sharing/creating new knowledge, and communication. It is not a prescriptive technology process.

The true standard of success for knowledge management is the number of people who access and implement ideas from the knowledge networks. Those bring state of the art ideas and/or best practices into one place and time, thereby collapsing the organization into areas of critical mass that imply standardization for ideas that work, and everyone can make comments to improve those standards. Even the newest novice to the organization can look at the materials and make recommendations based upon personal insight, creativity, and experience.

A big challenge related to implementing a KMS is in transforming knowledge held by individuals, including processes’ and behaviors’ knowledge, into a consistent technology format that can be easily shared with the organization’s stakeholders. But the biggest challenge is changing the organization’s culture from a knowledge hoarding one to a knowledge sharing culture.

“Even the best ideas need resources to transform them into profit.”

Now, when I talk about resource management, I am talking about it in its broadest sense. It is all the resources and assets that are available to the organization. It will include stockholders, management, employees, money, suppliers, inventory, boards of directors, alliance partnerships, real estate, knowledge, customers, patents, investors, good will, and brick and mortar. It is easy to see that when you consider all of the resources that are available to the
organization, effective resource management is one of the most critical, complex activities within any organization. Considering its complexity, you might rightly ask the question, “Where do you start?” There is no right answer to this question. We like to start with investors selecting the right caliber management team, as it is critical to every organization. There is no substitute for experienced, qualified, proven executives. The executive team is the first thing that professional investors look at.

- What is their track record?
- Have they led other successful organizations?
- Are they visionaries?
- Do they attract other successful managers to their team?

A good executive with a fair product will have a successful business. A fair executive with a good product has a high probability of leading the organization into bankruptcy. Just look at the amazing turnaround Lou Gershner led IBM through in the 1990s.

Some of the other things that need to be considered in resource management are:

- Good Governance
- Staff Resources
- Product and Service Mix
- Suppliers and Alliance Partners
- Financial Status
- R&D

These are only a few of an organization’s resources/assets. We could go on to discuss money, equipment, inventory, customer good will, facilities, patents, etc.

How to Manage Resources

Looking at the varied types of resources, you may wonder what approach can be used to manage all of the organization’s resources. The answer is strategic planning. The basic purpose of the strategic plan is to define how the organization will use its resources to optimize its value-added to all of its stakeholders. The objective of these plans is to define how to optimize the use of the limited amount of resources that are available to the organization. They are intended to put the organization in best possible position to compete in this complex, changing world. They should align the organization’s resources towards a common business objective that sets the organization apart from its rivals. The real purpose of your strategic (business) plan is to define the external focus of your organization in terms of customer service and value provided, along with identifying the areas in which the organization must excel in order to be successful. A well-crafted plan can provide the roadmap to success and let each individual know how he or she can contribute to the results. The strategic plan provides an opportunity and a stimulation that encourages creativity, communication, and mobilizes the efforts of the total organization. It provides competitive insight in your business field and develops buy-in and commitment to the organization’s short and long-term objectives. A good strategic plan involves everyone from the boardroom to the boiler room.

The problem that most organizations face today is that management prepares a strategic plan, updates it once or more times a year, sharing with just a privileged few, and then files it away in the corporate vault so that the competitors will not be able to get their “dirty, little hands” on this strategic document. Well, that’s all and good, but it keeps the strategic plan from accomplishing its true objective of uniting the organization and focusing on a set
of common goals. The truth of the matter is that your competition probably has a good idea of what is in your strategic plan; it is your employees that you are keeping in the dark.

Strategic Planning

There are three main objectives, and supporting eleven documents that make up a strategic plan, are: (See figure 3.)

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Document</th>
<th>Person Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To set direction</td>
<td>Mission Statement</td>
<td>Top Management</td>
</tr>
<tr>
<td></td>
<td>Value Statements</td>
<td>Top Management</td>
</tr>
<tr>
<td></td>
<td>Organization Vision Statements</td>
<td>Top Management</td>
</tr>
<tr>
<td></td>
<td>Strategic Focus</td>
<td>Top Management</td>
</tr>
<tr>
<td></td>
<td>Critical Success Factors</td>
<td>Top Management</td>
</tr>
<tr>
<td>2. To establish expectations</td>
<td>Objectives</td>
<td>Top Management</td>
</tr>
<tr>
<td></td>
<td>Goals</td>
<td>Top Management</td>
</tr>
<tr>
<td>3. To define actions</td>
<td>Strategic</td>
<td>Middle Management</td>
</tr>
<tr>
<td></td>
<td>Tactics</td>
<td>First Level Managers and Employees</td>
</tr>
<tr>
<td></td>
<td>Budgets</td>
<td>First Level Managers</td>
</tr>
<tr>
<td></td>
<td>Performance Plans</td>
<td>First Level Managers and Employees</td>
</tr>
</tbody>
</table>

"The essence of competitiveness is liberated when we make people believe that what they think and do is important - and then get out of their way while they do it."*Jack Welsh*

*Ex CEO, General Electric*

**Resource Management Summary**

Resource management cannot be an after thought. It must be the basis that all executive decisions are based upon. It requires a lot of planning, coordination,
reporting, and continuous refining to do an excellent job at resource management. Too many successful organizations manage the operations by throwing more resources into the pot. They may be very successful with this approach as long as they have very little competition, but even the giants fall if they do not do an outstanding job of resource management. Just look at what happened to Big Blue.

“Being good is good. Being the best is great!”

While we looked at the five elements that must be managed to achieve excellence, there are a number of things that run across all of them. For example,

- Communication
- Team work
- Empowerment
- Respect for one another
- Honesty
- Leadership
- Quality
- Fairness
- Technology

All of the key factors are built into the word management. It is all the things that turn an employee into an individual that own his or her job, thereby bringing satisfaction and dignity to the individual for a job well done.

In today’s worldwide marketplace customers do not have to settle for second best. Overnight mail brings the best to everyone’s doorstep. The Internet lets your customers shop internationally so it is easy for them to get the best quality, reliability, and price, no matter who is offering it. Customers are concerned about the products they purchase, but they are equally or more concerned about dealing with organizations who care, who are quick to respond, and who will listen and react to their unique needs. This demands that, in order to succeed in the 21st Century, organizations need to excel in all parts of their business. You must have an organization that excels at what it is doing, but also is recognized for its excellence to win today’s savvy customers.

“Be better today than you were yesterday and better tomorrow than you are today - this is a requirement, not a nicety.”