
CURRENT ISSUES IN MANAGEMENT

Editors

Engin Demirel (PhD) Şermin Şenturan (PhD)

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Preface

There have been many recent developments in the theory, practice and scope of management. This book aims to develop reader's awareness in understanding and using modern management developments and approaches and to provide an integrated perspective of current issues and trends in business management. It introduces the theoretical and practical guidelines associated with current issues in management. A range of contemporary issues is examined which vary depending on their currency. Such issues include strategic management, financial risk management, chaos management, flexible organizational teams, virtual organizations, learning organizations, strategic alliances, high performance organizations, outsourcing, reengineering, empowerment, benchmarking, downsizing, management information systems, and six sigma.

We try to discuss the issues that management faces and looks at ways that they can overcome them in order to survive in the increasingly competitive environment and to succeed.

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Current Issues in Management

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Management of Change

Dr.Şermin Şenturan

Introduction

Technology, market and competition conditions, consumer needs and expectations are changing everyday. For this reason change is an inevitable factor for all the organizations' improvement. Changing environment leads the organizations to find solutions to fit the needs of these new circumstances.

Charles Darwin once said, "It isn't the strongest of the species that survive, nor the most intelligent, but the one most responsive to change," For a living creature, physical responsiveness to change is vital for long-term survival. For an organization, its change capability is equally vital for its survival, because the environments in which living creatures or living organizations exist are inevitably going to change.. (Ollerhead, 2008, p.32-35).

Environments in which organizations exist change too, and much more quickly. Since the late 19th century, the social, business and technological world has been changing at an enormous and alarming rate.

But it isn't only technology that makes change happen. Customers' tastes and needs change too, and this is just as true of customers of business-to-consumer organizations as it is of business-to-business ones. In practice, the need for business change is one of the few reliable constants that organizations are likely to experience. This being so, the ability to change is inevitably the key requirement for ongoing success.

Organizations need to be able to foster and implement change quickly at a wide range of levels. Change relating to an organization's business processes, however, is especially important. The business processes are those activities at any organization that produce a product or service that meets the needs of the customers. This intimate linkage between business process and the customers means that business process is at the 'front line' of the change

activities and deserves particular attention when assessing the organization's change capability.

In order to assess change capability, it is a vital aspect of the organization's potential for success and indeed for survival. Many organizations, including some that are currently highly successful, actually have a surprisingly low change capability. Such organizations are especially vulnerable to environmental change.

Changing Organizations

Managing organizational change will be more successful if the organization applies some principles. Change management entails thoughtful planning, sensitive implementation and involvement of the people affected by the changes. If the organization forces change on people normally problems arise. Change must be realistic, achievable and measurable. Before starting organizational change, managers should ask themselves the following questions;

- What do we want to achieve with this change?
- Why and how will we know that the change has been achieved?
- Who is affected by this change, and how will they react to it?
- How much of this change can we achieve ourselves?
- What parts of the change do we need help with?

These aspects also relate strongly to the management of personal as well as organizational change

Basic Principles of change

Change management is a basic skill in which most leaders and managers need to be competent. There are very few working environments where change management is not important.

When leaders or managers are planning to manage change, there are five key principles that need to be kept in mind:

1. Different people react differently to change
2. Everyone has fundamental needs that have to be met
3. Change often involves a loss, and people go through the "loss curve"
4. Expectations need to be managed realistically
5. Fears have to be dealt with

Here are some tips to apply the above principles when managing change:

- Give people information - be open and honest about the facts, but don't give overoptimistic speculation, meet their "openness" needs, but in a way that does not set "unrealistic expectations".
- For large groups, produce a communication strategy that ensures information is disseminated efficiently and comprehensively to everyone (don't let the grapevine take over). Tell everyone at the same time. However, follow this up with individual interviews to produce a personal strategy for dealing with the change. This helps to recognise and deal appropriately with the "individual reaction" to change.
- Give people choices to make, and be honest about the possible consequences of those choices, meet their "control" and "inclusion" needs
- Give people time, to express their views, and support their decision making, providing coaching, counselling or information as appropriate, to help them through the "loss curve"
- Where the change involves a loss, identify what will or might replace that loss - loss is easier to cope with if there is something to replace it. This will help assuage potential "fears".
- Where it is possible to do so, give individuals opportunity to express their concerns and provide reassurances - also to help assuage potential "fears".
- Keep observing good management practice, such as making time for informal discussion and feedback (even though the pressure might seem that it is reasonable to let such things slip - during difficult change such practices are even more important).

Where you are embarking on a large change programme, you should treat it as a project. That means you apply all the rigours of project management to the change process - producing plans, allocating resources, appointing a steering board and/or project sponsor etc.. The principles above should form part of the project objectives.

(<http://www.teamtechnology.co.uk/changemanagement.html>, Nov. 25, 2008)

Ability to Change

The ability of organizations to adapt to changes is based on the following factors:

- A. Adaptability to customers' needs,
- B. Positive attitude of senior management toward change,
- C. The way changes are facilitated,
- D. The way a change project is managed,
- E. Ability of human resource management to contribute to organizational change,
- F. Perception toward the role of technology in organizational change,
- G. The way business processes are changed,
- H. Approach to performance evaluation, among others

Models for Change Management

A number of models are available for understanding the transitioning of individuals through the phases of change management and strengthening organizational development initiative in both government and corporate sectors.

Individual change management

What are the individual's preferences in change management, where they are naturally located on both the creative thinking and change management, how they can improve their creative thinking skills and how organizations can improve profitability by adopting the appropriate change management paradigm. It's claimed by Eales and White (2007, 384-395) that individuals have more flexibility and ability in creative thinking and change management than they might currently perceive; whereas organizations can improve their management of change significantly by adopting the appropriate change management paradigm and using a whole-brained or holistic approach.

Unfreeze-Change-Refreeze

An early model of change developed by Kurt Lewin (1951) described change as a three-stage process. The first stage he called "unfreezing". In this stage defense mechanisms to change have to be bypassed. In the second stage the change occurs. This is typically a period of confusion and transition. We are aware that the old ways are being challenged but we do not have a clear picture to replace them with yet. The third and final stage he called "freezing" (often called "refreezing" by others). The new mindset is crystallizing and one's comfort level is returning to previous levels. Rosch (2002) argues that this often quoted three-stage version of Lewin's approach is an oversimplification and that his theory was actually more complex and owed

more to physics than behavioural science. Later theorists have however remained resolute in their interpretation of the force field model. This three-stage approach to change is also adopted by Hughes (1991) who makes reference to: "exit" (departing from an existing state), "transit" (crossing unknown territory), and "entry" (attaining a new equilibrium). Tannenbaum & Hanna (1985) suggest a change process where movement is from "homeostasis and holding on", through "dying and letting go" to "rebirth and moving on". Although elaborating the process to five stages, Judson (1991) still proposes a linear, staged model of implementing a change: (a) analysing and planning the change; (b) communicating the change; (c) gaining acceptance of new behaviours; (d) changing from the status quo to a desired state, and (e) consolidating and institutionalising the new states.

Formula for Change

A Formula for Change was developed by Richard Beckhard and David Gleicher and is sometimes referred to as Gleicher's Formula (Sameer, 2008, p.6). The Formula illustrates that the combination of organizational dissatisfaction, vision for the future and the possibility of immediate, tactical action must be stronger than the resistance within the organization in order for meaningful changes to occur.

ADKAR Model

The ADKAR model for individual change management was developed by Hatt (2006, p.1-3) with input from more than 1000 organizations from 59 countries. This model describes five required building blocks for change to be realized successfully on an individual level. The building blocks of the ADKAR Model include:

1. Awareness – of why the change is needed
2. Desire – to support and participate in the change
3. Knowledge – of how to change
4. Ability – to implement new skills and behaviors
5. Reinforcement – to sustain the change

Change Management Toolkit

The Change Management Toolkit is a collection of more than 120 tools, methods and strategies which you can apply during different stages of personal, team and organizational development, in training, facilitation and consulting. It is divided into three principle sections: Self, Team and Larger System.

Self

Change Management starts and ends with individuals. As the system theory says, you cannot really predict how a person reacts to a certain stimulus. So, if you want to introduce change into a system, you will most likely need to think about what skills, behaviours and belief systems the members of the system will need to be part of the change effort.

Team

At the heart of modern organizations are teams that share the responsibility and the resources for getting things done. Most projects are too complex to be implemented by one person, most services need different specialists and support staff to be delivered, and most products are the result of the work of a larger resources team or supply chain. We know that teams can either perform at their peak, or can be terribly inefficient.

Larger Systems

Change processes are mostly initiated by either individuals or small teams, but the focus of change is one which goes beyond that small unit. It is directed towards the entire organization, or towards other organizations. A change project might be related to a community, a region or an entire society (and, yes: to the world as a whole).

Source “<http://www.change-management-toolbook.com/find/change-management-knowledgebase>”

There are a multitude of concepts on Change Management and it is very difficult to distil a common denominator from all the sources that are applying the phrase to their mental maps of organizational development. But obviously there is a tight connection with the concept of learning organizations. Only if organizations and individuals within organizations learn, they will be able to master a positive change. In other words, change is the result from an organizational learning process that centers around the

questions: 'In order to sustain and grow as an organization and as individuals within; what are the procedures, what is the know-how we need to maintain and where do we need to change?', and, 'How can we manage a change, that is in harmony with the values we hold as individuals and as organizations?'

Change Management has also to be seen in the light of the discussion on Knowledge Management, which took several turns during the nineties. When the establishment of an intranet was suddenly feasible to any large organization, IT and management scientists declared the beginning of the "knowledge society". The immature anticipation of knowledge management was that every member of an organization would be highly motivated to share information through a common platform and a quality improvement process would be enabled more or less by itself. It took only a couple of years to realize that this assumption was false. Up to now, there are no examples of a company in which transformational learning is facilitated by an IT system only, because the early protagonists forgot that information does not equal knowledge and that human knowledge is in the muscles of the persons who make the parts of a larger system.

Back to square one. How (and whether at all) change can be "managed" or facilitated? In essence, change takes place on three levels (Figure 1): The self, the team or the (small) organization and the wider system that surrounds the team or the small organization or the organizational unit - depending how you define the system borders. In a process, learning needs to be facilitated on all three levels to become sustainable.

There are many schools and tools that are related to Change Management such as

- Learning Organizations,
- Theme Centred Interaction,
- Transactional Analysis,
- Gestalt Therapy,
- Systems Thinking / Family Therapy,
- Neurolinguistic Programming / NLP,
- Chaos Theory,
- Communication Theory,
- Whole Systems Change,
- Human Resource Development,
- Total Quality Management

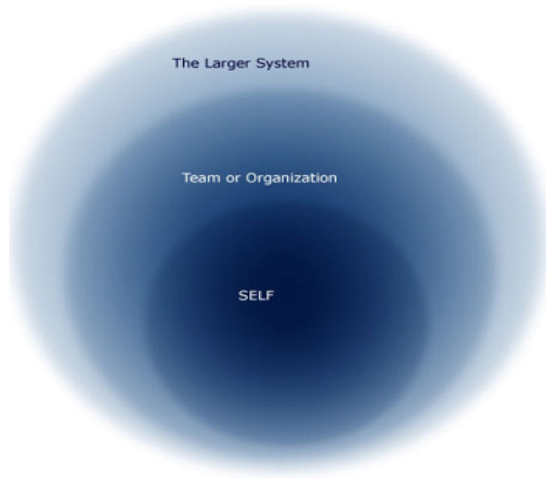


Figure 1: Levels of Change

Source “<http://www.change-management-toolbook.com/Find/Change-Management-Knowledge-Base>.”

Table 1 gives an overview of the different skills related to the three levels of change (self, team and system). It is by no means exhaustive.

Related to			
Skills the Change Agents need to acquire	Self	Team	System
Technical Skills of the Specific Sector			X
Quality Management		X	X
Listening and Inquiry Skills		X	X
Defining Objectives / Visioning	X	X	X
Understanding Mental Maps / Shifting Perspectives	X	X	X
Resource Orientation	X	X	X
Dealing with Complexity	(X)	(X)	X
Learning from Mistakes / Feedback	X	X	X
Coaching		X	X
Leadership		X	X

Training Skills			X
Facilitation Skills		X	X
Large System Change Tools		(X)	X
Understanding and Catalysing Self-Organization		(X)	X

Table 1: Skills of Change Agents (X = strongly needed, (X) = partly needed) Source : “<http://www.change-management-toolbook.com/Find/ChangeManagementKnowledgeBase>

These skills to the schools previously mentioned provide different methodologies which can be associated with the development of the specific skills (Table 2).

Roots and Schools of Change Management	
Skills	Appropriate Methodologies
Listening and Inquiry Skills	NLP, Family Therapy, Communication Theory, Learning Organizations
Defining Objectives / Visioning	NLP, Systems Thinking, Learning Organizations
Understanding Mental Maps / Shifting Perspectives	Gestalt, NLP, Learning Organizations, Communication Theory
Resource Orientation / Solution Focus	Appreciative Inquiry, Family Therapy, NLP
Dealing with Complexity	Systems Thinking, Family Therapy, Chaos Theory
Learning from Mistakes / Feed Back	NLP, Family Therapy, TCI
Coaching	Family Therapy, NLP, Gestalt, TA
Leadership	NLP, Family Therapy, Gestalt, TA, Human Resource Development
Large System Change Tools Understanding and Catalysing Self-Organization	Open Space Technology, Appreciative Inquiry, Future Search Conferences

Table 2: Roots and schools applicable to chamanagement

Source“<http://www.change-management-toolbook.com/Find/ChangeManagementKnowledgeBase>

Finally, all the methodologies, beside providing a general framework which helps to orient yourself and act appropriately in a given situation, provide a wealth of applicable tools (always keeping in mind that only fools worship their tools). You know that I try to collect these tools and through my work offer to maintain an overview, using the simple assumption: "If something

does not work, try something else". I am not in the position (and I will never be) to list them all.

Some Examples for Micro and Macro Change Management Tools		
Basic Processes	Micro Tools	Macro Tools
Diagnosis Processes	Different kind of questionnaires, Organizational Constellations, active listening tools, Time Lines, Organizational History / Mapping	Open Space Technology, Future Search, Appreciative Inquiry
Concept Building Processes	Visioning, creativity techniques (e.g. Walt-Disney-Cycle), Mindmapping	Project Cycle Management, Appreciative Inquiry, Scenario Technique
Psychosocial Change Processes	Various coaching techniques, Peer Mentoring, Meta-Mirror, working with hidden agendas, 6 Thinking Hats, Working with Limiting Beliefs	Open Space Technology, Future Search Conferences
Learning Processes	Dialogue, tools for self-reflection, mentoring	Formal training or on-the-job, Open Space Technology, Appreciative Inquiry
Information Processes	Tools for recognizing and utilizing different thinking styles, Pacing and Leading	Public Relations Campaigns, Intranets, Stakeholder Forums
Implementation Processes	General management techniques	General management techniques, Real Time Strategic Change (RTSC)
Management of all Change Processes	General management techniques	management techniques (participatory monitoring),

Table 3: Some tools for different steps of the change process Source
 “<http://www.change-management-toolbook.com/> Find/ Change Management Knowledge Base.

Organizational Change Management

Organizational change management includes processes and tools for managing the people side of the change at an organizational level. These tools include a structured approach that can be used to effectively transition groups or organizations through change. When combined with an understanding of individual change management, these tools provide a framework for managing the people side of change. Organizational change management processes include techniques for creating a change management strategy (readiness assessments), engaging senior managers as change leaders (sponsorship), building awareness of the need for change (communications), developing skills and knowledge to support the change (education and training), helping employees move through the transition (coaching by managers and supervisors), and methods to sustain the change (measurement systems, rewards and reinforcement).

Dynamic conservatism

This model by Donald Schön (Schmidt, 2000, p.266) explores the inherent nature of organizations to be conservative and protect themselves from constant change. Schön recognizes the increasing need, due to the increasing pace of change for this process to become far more flexible. This process being one of 'learning'. Very early on Schön recognized the need for what is now termed the 'learning organization'. These ideas are further expanded on within his frame work of 'reflection-in-action, the mapping of a process by which this constant change could be coped with.

The role of the management

Management's responsibility (and that of administration in case of political changes) is to detect trends in the microenvironment as well as in the macroenvironment so as to be able to identify changes and initiate programs. It is also important to estimate what impact a change will likely have on employee behavior patterns, work processes, technological requirements, and motivation. Management must assess what employee reactions will be and craft a change program that will provide support as workers go through the process of accepting change. The program must then be implemented, disseminated throughout the organization, monitored for effectiveness, and adjusted where necessary. Organizations exist within a dynamic environment that is subject to change due to the impact of various change "triggers", such

as evolving technologies. To continue to operate effectively within this environmental turbulence, organizations must be able to change themselves in response to internally and externally initiated change. However, change will also impact upon the individuals within the organization. Effective change management requires an understanding of the possible effects of change upon people, and how to manage potential sources of resistance to that change. Change can be said to occur where there is an imbalance between the current state and the environment.

Other Approaches to Managing Change

- Appreciative Inquiry, a collaborative approach to organizational change, is partly based on the assumption that change in a system is instantaneous ('Change at the Speed of Imagination')
- Scenario Planning: Scenario planning provides a platform for doing so by asking management and employees to consider different future market possibilities in which their organizations might find themselves.
- Organize with Chaos of Rowley and Roevens, who describe Change as a process where certain events need to be managed whereas others need to be 'under' managed, left alone to self-organize and improve the business naturally
- Theory U of Otto Scharmer who describes a process in which change strategies are based on the emerging future rather than on lesson from the past.

The constructionist principle

The map is not the territory: The map/territory relation is proven by neuroscience and is used to signify that individual people do not have access to absolute knowledge of reality, but in fact only have access to a set of beliefs they have built up over time, about reality. It has been coined into a model by Chris Argyris called the Ladder of Inference (Argyris, 1985, p.30-50). As a consequence, communication in change processes needs to make sure that information about change and its consequences is presented in such a way that people with different belief systems can access this information. Methods that are based on the Map/Territory Relation help people to:

- become more aware of their own thinking and reasoning (reflection),

- make their thinking and reasoning more visible to others (advocacy), and
- inquire into others' thinking and reasoning (inquiry).

Some methodological frameworks that are based on this principle are:

- Neuro-linguistic programming (NLP), an eclectic school of modern psychotherapy developed by Richard Bandler, John Grinder, Robert Dilts, and others;
- Circular Questioning and other techniques basically developed in Systemic Family Therapy;
- Gestalt Psychology, a theory of mind and brain that proposes that the operational principle of the brain is holistic, parallel, and analog, with self-organizing tendencies;
- The concept of the Fifth Discipline by Peter Senge and other management thinkers
- Scenario Thinking, a method that helps people to create stories about the future

Chaotic Change

How to describe a way for public services leaders to lead chaotic *change*.(Thomas & Thomas, 2008, 85-96) By chaotic *change*, it is meant *changes* in an organization when the external and internal complexity and uncertainty is high which is the case for most public organizations. Suggestions are made on how to lead chaotic *change* by influencing the patterns of human interaction and to focus *change management* on people, identity and relationships by changing the way people talk in the organization. Building on experiences from the private sector, the authors contend that *change management* effectiveness is low because leaders underestimate the complexity of *change*, focusing on tools, strategy and structures instead of paying attention to how human beings *change* by forming identities through relating. Also, in public services, the complexity of *change* is high as it equally deals with the transformation of complex patterns of interaction and relating. Successful *change management* practices in public service organizations should therefore take better account of unpredictability, uncertainty, self-governance, emergence and other premises describing chaotic circumstances. For a leader, this necessitates paying attention to how people form identities in organizations and avoiding design-

oriented managerial interventions, as well as keeping at bay the anxiety caused by not being in managerial control.

Change in the economic transition

The over-riding objective *of* any transition manager must be to preserve value, reduce risk, and execute a seamless *change of* the portfolio's structure. But from an asset owner's point *of* view, what circumstances genuinely require the use *of* a transition manager? The following are examples *of* scenarios where the engagement *of* a transition provider is likely to benefit the integrity *of* the portfolio:

- the process *of* changing investment managers/strategy presents a real risk *of* value erosion
- the operational risk can cause explicit cost through failed settlement, overdrafts, failed cash transfers and FX payments
- the portfolio risk is significant and will impact returns
- the portfolio is *of* such size that poor execution will lead to loss *of* value
- the overall project management task is too great for internal resources to manage efficiently
- a full audit trail is required showing how the portfolio moved from the old to the new structure

Marry any or all *of* the above with the usual catalysts for *change*, such as the below and the picture becomes clearer:

- *change of* asset allocation
- *change of* investment manager
- *change of* benchmark
- *change of* fund structure
- outsourcing *of* asset management

Complex *changes* that introduce the risk of unnecessary loss of value within the portfolio can be identified and managed by a dedicated transition manager. High quality execution, project planning and transparent and clear reporting throughout the process will allow the fund, through the skills of the transition provider, to understand, and crucially control these risks.

It is important to stress that, as with most bespoke services, there are instances when employing a transition specialist will not add value and can quickly complicate proceedings, colour the water and in hard cash-terms be more expensive than alternative options. Objectivity is one of the most important assets of any transition provider, and having the foresight to advise clients when they are not needed provides the foundation of strong partnerships and clear understanding between client and provider. Preserving value should be the core objective of the transition manager. In the context of total performance impact, using the Implementation Shortfall methodology, we will take a deeper look into the total cost equation, but before we do, we would like to draw a comparison to an event that many of us will have experienced.

Discussion

There are some interconnections between *management* development and *change management*, provides the only such research in the residential aged care industry, and contributes a range of practical proposals about how *management* development practices can be used to support the *change management* competencies of middle managers.

Organizations should develop strategies for how *management* practices might better support the *management of change*. But there was not a clear understanding of how the *management of change* fitted within the overall job role of the middle managers. How middle managers actually manage *change* on a day-to-day basis has been largely ignored or taken for granted. This has led to considerable stress on managers. There is a wide range of *management* development practices in the industry, with many managers receiving low levels of preparation and support. *Change management* competencies and a number of *management* development strategies are recommended as a way of bringing *change management* more into the foreground of *management* thinking and practice within the industry.

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Financial Risk Management

Dr. Engin Demirel

Introduction

Risk is the function of the likelihood of a given threat-source is exercising particular potential vulnerability and resulting impact of that adverse event on organization (Stoneburner, 2001; p.8). On the other hand, there are several ways of defining risk in management. In general meaning risk defined as uncertainty that is as the deviation from an expected outcome. According to that, we can differentiate uncertainty into two subjects:

- General uncertainty: complete ignorance about any potential outcome makes both rational decision making and any qualification impossible
- Specific uncertainty: objective at least subjective, probabilities can be assigned to the potential outcomes and hence allow for qualification

Other classification of risk can be divided as follows:

1. (Firm) specific versus market (-wide) risk
 - Specific risk is risks that are specific to the firm or the industry in which a firm operates.
 - Market wide (systematic) risk is the risk that can not be diversified away and express the covariance of the deviations with the changes in the broad economic development
2. Continuous versus event risk
 - Continuous risk is caused by a source or factor that can change continually (Schroeck, 2002; p.24).

History of Risk Management

In the current understanding, risk management began in the early 1950s. The change in attitude and philosophy and the shift to the risk management philosophy had to a wait management science, with its emphasis on cost benefit analysis, expected value, and a scientific approach to decision making under uncertainty. The development from insurance management to risk management occurred over a period of time and paralleled the evolution of the academic discipline of risk management. Operations research seems to have originated during World War II, when scientists were engaged in solving logistical problems, developing methodologies for deciphering unknown codes, and assisting in other aspects of military operations. It appears that in the industry and in the academic discipline the development happened simultaneously, but without question the academic discipline produced valuable approaches, methodologies, and models that supported the further development of risk management in the industry. New courses such as operations research and management science emphasize the shift in focus from a descriptive to a normative decision theory.

Markowitz* was the first financial theorist to explicitly include risk in the portfolio and diversification discussion. He linked terms such as return and utility with the concept of risk. Combining approaches from operations research and mathematics with his new portfolio theory, he built the basis for later developments in finance. This approach became the modern portfolio theory, and was followed by other developments, such as Fischer Black's option-pricing theory, which is considered the foundation of the derivatives

* Harry Max Markowitz (1927) is an American economist and a recipient of the John von Neumann Theory Prize and the Nobel Memorial Prize in Economic Sciences. Markowitz is a professor of finance at the Rady School of Management at the University of California, San Diego (UCSD). He is best known for his pioneering work in Modern Portfolio Theory, studying the effects of asset risk, return, correlation and diversification on probable investment portfolio returns. A Markowitz Efficient Portfolio is one where no added diversification can lower the portfolio's risk for a given return expectation (alternately, no additional expected return can be gained without increasing the risk of the portfolio). The Markowitz Efficient Frontier is the set of all portfolios that will give the highest expected return for each given level of risk. These concepts of efficiency were essential to the development of the Capital Asset Pricing Model.

industry. In the early 1970s, Black and Scholes* made a breakthrough by deriving a differential equation which must be satisfied by the price of any derivative instrument dependent on a non dividend stock. This approach has been developed further and is one of the driving factors for the actual financial engineering of structured products (Gallati, 2003; p.12).The Evolution of Financial Instruments for risk management chronologies summarized in the table;

	YEAR	
	2004	Volatility options and futures
Single stock futures	2003	
	1999	CDOs of CDOs (CDOs squared)
Synthetic CDOs (collateralized debt obligations)	1998	
Credit derivatives	1993	
	1992	Differential swaps
o swaps	1991	
Equity index swaps	1990	CLOs (collateralized loan obligations)
3-month euro-DM futures	1989	ECU interest-rate futures
captions		Futures on interest rate swaps
	1988	CBOs (collateralized bond obligations)
Average options	1987	Bond futures and options
Commodity swaps		Compound options
	1986	
Eurodollar options	1985	Futures on U.S. dollar and

* The Black–Scholes model is a mathematical description of financial markets and derivative investment instruments. The model develops partial differential equations whose solution, the Black–Scholes formula, is widely used in the pricing of European-style options. The model was first articulated by Fischer Black and Myron Scholes in their 1973 paper, "The Pricing of Options and Corporate Liabilities." The foundation for their research relied on work developed by scholars such as Jack L. Treynor, Paul Samuelson, A. James Boness, Sheen T. Kassouf, and Edward O. Thorp. The fundamental insight of Black–Scholes is that the option is implicitly priced if the stock is traded. Robert C. Merton was the first to publish a paper expanding the mathematical understanding of the options pricing model and coined the term Black–Scholes options pricing model.

Swaptions		municipal bond indices
Options on T-note futures	1984	
Currency futures	1983	Interest-rate caps and floors
Equity index options		
	1982	Currency options
Equity index futures	1981	T-note futures
Options on t-bond futures		Eurodollar futures
		Interest-rate swaps
Bank CD futures , currency swaps	1980	
	1979	Over-the counter currency options
T-Bill Futures	1975	Futures on mortgage-backed bonds
Equity futures	1973	Equity options
	1972	Foreign currency futures

Table 1: The Evolution of Financial Instruments for Hedging Risks Source: The Economist, updated by the authors (Crouhy, Galai, Mark, 2006; p.50).

Managing the Firm Risk

Realistic descriptions of the corporate setting give some justification for why firms should devote careful attention to the risks facing them (Christoffersen, 2003; p.3):

- *Bankruptcy costs.* The direct and indirect costs of bankruptcy are large and well known. If investors see future bankruptcy as a nontrivial possibility, then the real costs of a company reorganization or shutdown will reduce the current valuation of the firm. Thus, risk management can increase the value of a firm by reducing the probability of default.
- *Taxes.* Risk management can help reduce taxes by reducing the volatility of earnings. Many tax systems have built-in progressions and limits on the ability to carry forward in time the tax benefit of past losses. Thus, everything else being equal, lowering the volatility of future pretax income will lower the net present value of future tax payments and thus increase the value of the firm.
- *Capital structure and the cost of capital.* A major source of corporate default is the inability to service debt. Other things equal, the higher the debt-

to equity ratio, the riskier the firm. Risk management can therefore be seen as allowing the firm to have a higher debt-to-equity ratio, which is beneficial if debt financing is inexpensive. Similarly, proper risk management may allow the firm to expand more aggressively through debt financing.

- *Compensation packages.* Due to their implicit investment in firm-specific human capital, managerial level and other key employees in a firm often have a large and un-hedged* exposure to the risk of the firm they work for.

Thus, the riskier the firm, the more compensation current and potential employees will require to stay with or join the firm. Proper risk management can therefore help reducing the costs of retaining and recruiting key personnel.

A financial institution or a non-financial firm may face market risk due to unexpected movements in interest rates. Such market risk arises because of positions in fixed income securities taken by traders, portfolio managers or financial managers. This risk may arise because rates move opposite to the forecast on which an active strategy based. Risk managers need to assess the possible loss, or value at risk, if the positions remain open. Should value at risk be unacceptably large, risk managers need to explore techniques to reduce exposure by hedging (Fooladi, Mackay ,2000; p.18).

Definitions

Risk is exposure to the consequences of uncertainty. In a project context, it is the chance of something happening that will have an impact upon objectives. It includes the possibility of loss or gain, or variation from a desired or planned outcome, because of the uncertainty associated with following a particular course of action. Risk thus has two elements: the likelihood or probability of something happening, and the consequences or impacts if it does (Cooper, Grey, Raymond, Walker, 2005; p.4).

* *Hedge* is a position established in one market in an attempt to offset exposure to price fluctuations in some opposite position in another market with the goal of minimizing one's exposure to unwanted risk. There are many specific financial vehicles to accomplish this, including insurance policies, forward contracts, swaps, options, many types of over-the-counter and derivative products, and perhaps most popularly, futures contracts.

Risk management refers to the culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects.

The risk management process involves the systematic application of management policies, processes and procedures to the tasks of establishing the context, identifying, analyzing, assessing, treating, monitoring and communicating risk.

Risk identification is the process of determining what, how and why things may happen.

Risk analysis is the systematic use of available information to determine how often specified events may occur and the magnitude of their consequences. It may use any of a wide variety of mathematical and other models and techniques.

Risk evaluation determines whether the risk is tolerable or not and identifies the risks that should be accorded the highest priority in developing responses for risk treatment.

Risk treatment establishes and implements management responses for dealing with risks, in ways appropriate to the significance of the risk and the importance of the project. We usually think about risk in terms of potential problems or negative outcomes. However, under the definitions here, risk includes positive impacts or consequences as well, and risk management includes processes for identifying and taking advantage of opportunities and benefits.

Methodology on Risk Management

Risk management and risk taking are not opposites, but two sides of the same coin. Together they drive all our modern economies: the capacity to make forward-looking choices about risk in relation to reward lies at the heart of the management process of all enduringly successful corporations. Financial risk management as a formal discipline has been a bumpy affair, especially over the last 10 years. On the one hand, we've seen an extraordinary growth in new types of institutions that earn their keep by taking and managing risk (e.g., hedge funds), as well as some extraordinary successes in risk management mechanisms: the lack of financial institution bankruptcies during the violent downturn in credit quality in 2001–2002 is often claimed

to be the result of better credit-risk management processes at banks (Crouhy, Galai, Mark, 2006; p.1). On the other hand different situations has seen on 2008-2009 financial downturn which financial intermediaries take risks that they couldn't distinguish the results of financial leverages.

Risk management has not consistently been able to prevent market disruptions or to prevent business accounting scandals resulting from breakdowns in corporate governance. Sophisticated financial engineering, supplied by the banking, securities, and insurance industries, also played a role in covering up the true economic condition of poorly run companies during the equity markets' millennial boom and bust (Crouhy, Galai, Mark, 2006; p.2).

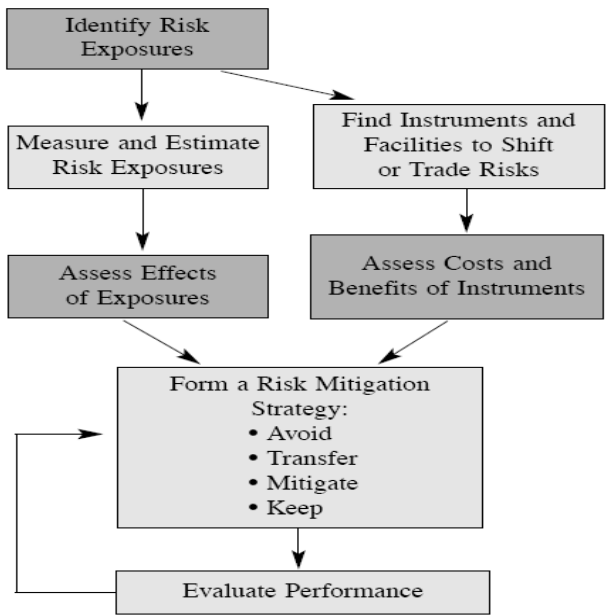


Figure 1: Risk management process.

On financial risk management process, first you should have to identify the risk exposures. Then measure and estimate risk exposures or find instruments and facilities to shift or trade risks. According to risk, exposures assess effects of exposures and assess costs and benefits of instruments. We can define mitigation strategy under avoid, transfer, mitigate or keep approach.

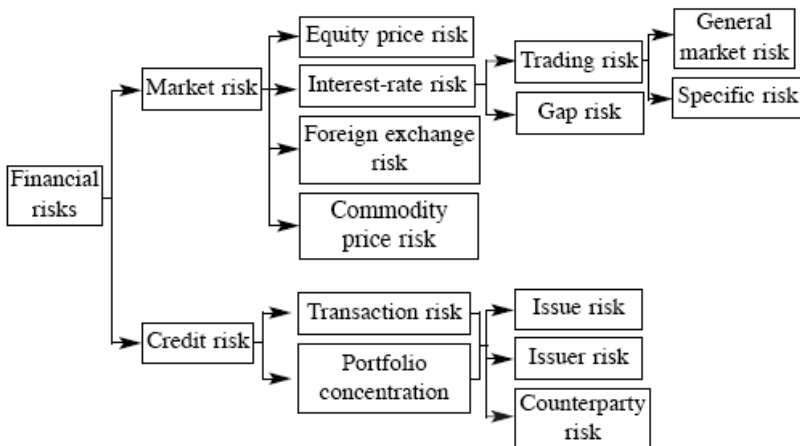


Figure 2: Schematic presentation, by categories, of financial risks (Crouhy, Galai, Mark, 2006; p.26)

Corporations take risk management very seriously recent surveys find that financial executives as one of their most important objectives rank risk management. Given its real world prominence, one might guess that the topic of risk management would command a great deal of attention from researchers in finance, and that practitioners would therefore have a well developed body of wisdom from which to draw in formulating hedging strategies (Froot, Scharfstein, Stain, 1993; p.1629).

Risk managers should report the entire distribution of profits and losses over the specified horizon. In practice, one number, the worst loss at a specified confidence level, such as 99 percent, summarizes this distribution. Value at Risk (VAR), however, is only one of the measures that risk managers focus on. It should be complement by, which identifies potential losses under extreme market conditions, which are associated with much higher confidence levels (Philippe Jorion, 2003, p.243).

Market risk measurement attempts to quantify the risk of losses due movements in financial market variables. The variables include interest rates, foreign exchange rates, equities, and commodities. Positions can include cash or derivative instruments.

The value at risk (VAR) is that it provides a neat answer to all these questions. One number aggregates the risks across the whole portfolio, taking into account leverage and diversification, and providing a risk measure with an associated probability. If the worst increase in yield at the 95% level is 1.645, we can compute VAR as;

$$\text{VAR} = (\text{Market value}) \times (\text{Modified Duration}) \times (\text{Worst yield increase})$$

VAR is a summary measure of the downside risk, expressed in dollars. A general definition is VAR is the maximum loss over a target horizon such that there is a low, pre-specified probability that the actual loss will be larger.

VAR is a useful summary measure of risk. Its application, however, is subject to some caveats. This is not what VAR designed to measure. Indeed, we would expect the VAR number to be exceeded with a frequency of, which is 5 days out of a hundred for a 95 percent confidence level. This is perfectly normal. In fact, back-testing procedures designed to check whether the frequency of exceed is in line with. VAR does not say anything about the distribution of losses in its left tail. It just indicates the probability of such a value occurring. For the same VAR number, however, we can have very different distribution shapes.

VAR measures with some error. The VAR number itself is subject to normal sampling variation. In our example, we used ten years of daily data. Another sample period, or a period of different length, will lead to a different VAR number. Different statistical methodologies or simplifications can also lead to different VAR numbers. One can experiment with sample periods and methodologies to get a sense of the precision in VAR. Hence, it is useful to remember that there is limited precision in VAR numbers. What matters is the first-order magnitude.

To measure VAR, we first need to define two quantitative parameters, the confidence level and the horizon.

The higher the confidence level so it creates the greater the VAR measure. Varying the confidence level provides useful information about the return distribution and potential extreme losses. It is not clear, however, whether one should stop at 99%, 99.9%, 99.99% and so on. Each of these values will create an increasingly larger loss, but less likely.

The choice of the confidence level depends on the use of VAR. For most applications, VAR is simply a benchmark measure of downside risk. If so, what really matters is of the VAR confidence level across trading desks or time.

The longer the horizon the greater the VAR measure is. This extrapolation depends on two factors, the behavior of the risk factors and the portfolio positions. To extrapolate from a one-day horizon to a longer horizon, we need to assume that returns independently and identically distributed. This allows us to transform a daily volatility to multiple-day volatility by multiplication by the square root of time.

We now turn to the analysis of elements of a VAR system. As described in Figure 3, a VAR system combines the following steps:

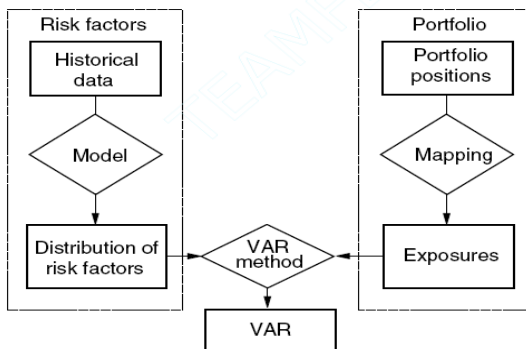


Figure 2: Elements of a VAR System

1. From market data, choose the distribution of risk factors (e.g., normal, empirical, or other).
2. Collect the portfolio positions and map them onto the risk factors.
3. Choose a VAR method (delta-normal, historical, Monte Carlo) and compute the portfolio VAR.

The weakness of VaR depends upon opinions, but most agree that:

- The loss amount that exceeds VaR is important. VaR does not tell us by how much.
- There is no utility function associated with this excess measure given by VaR.
- VaR assumes that assets can be sold at their market price with consideration for liquidity
- It is simple to understand and very widely accepted. People may even take it as gospel truth.

On the other hand VaR provides effective assurance when;

- Market assumptions hold where theory meets practice
- Other models data can be used to back-test VaR to check for realistic or alternative situations.
- Following both predicates, its truly a risk management portfolio. (Chong, 2004; p 28).

Stress testing is a key risk management process, which includes;

- (i) Scenario analysis,
- (ii) Stressing models, volatilities and correlations, and
- (iii) Developing policy responses. submits the portfolio to large movements in financial market variables. These scenarios can be creating:

Moving key variables one at a time, which is a simple and intuitive method. Unfortunately, it is difficult to assess realistic co-movements in financial variables. It is unlikely that all variables will move in the worst possible direction at the same time. Using historical scenarios and creating prospective scenarios, for instance working through the effects, direct and indirect, of a stock market crash. Ideally, the scenario should be tailored to the portfolio at hand, assessing the worst thing that could happen to current positions

The goal of stress testing is to identify areas of potential vulnerability. This is not to say that the institution should be totally protect against every possible contingency, as this would make it impossible to take any risk. Rather, the objective of stress testing and management response should be to ensure that the institution can withstand likely scenarios without going bankrupt.

Identification of Risk Factors

Market risk is the risk of fluctuations in portfolio values because of movements in the level or volatility of market prices. Distinguish between absolute and relative risks;

Absolute risk measured in terms of shortfall relative to the initial value of the investment, or perhaps an alternative investment in cash. It should be expressed in dollar terms (or in the relevant base currency). Let us use the standard deviation as the risk measure and define it as the initial portfolio value and as the rate of return. Absolute risk in dollar terms is;

$$\sigma(\Delta P) = \sigma(\Delta P / P) \times P = \sigma(Rp) \times P$$

Relative risk is measured relative to a benchmark index and represents active management risk. B as the benchmark, the deviation is ΔB . In dollar terms, this is $\Delta B \times B$. The risk is

$$\sigma = [\sigma(Rp - Rb)] \times P = [\sigma(\Delta P / P - \Delta B / B)] \times P$$

Market risk can be classified into directional and non-directional risks.

Directional risks involve exposures to the direction of movements in major financial market variables. These directional exposures are measured by first-order or linear approximations such as ;

- Beta for exposure to general stock market movements
- Duration for exposure to the level of interest rates
- Delta for exposure of options to the price of the underlying asset

Non-directional risks involve other remaining exposures, such as nonlinear exposures, exposures to hedged positions or to volatilities. These non-directional exposures are measured by exposures to differences in price movements, or quadratic exposures such as;

- Basis risk when dealing with differences in prices or in interest rates
- Residual risk when dealing with equity portfolios
- Convexity when dealing with second-order effects for interest rates
- Gamma when dealing with second-order effects for options
- Volatility risk when dealing with volatility effects

Market risk is usually measured separately from another major source of financial risk, which is credit risk. originates from the fact that counterparties may be unwilling or unable to fulfill their contractual obligations. At the most basic level, it involves the risk of default on the asset, such as a loan, bond, or some other security or contract. In many other cases, the discontinuity is due to an observable event can be characterized as the risk of loss because of an observable political or economic event. These include;

- Changes in government leading to changes in economic policies,
- Changes in economic policies, such as default, capital controls, inconvertibility changes in tax laws, expropriations, and so on
- Coups, civil wars, invasions, or other signs of political instability
- Currency devaluations, which are usually accompanied by other drastic changes in market variables

Liquidity risk is usually viewed as a component of market risk. Lack of liquidity can cause the failure of an institution, even when it is technically solvent. We will see in the chapters on regulation that commercial banks have an inherent liquidity imbalance between their assets (long-term loans) and their liabilities (bank deposits) that provides a rationale for deposit insurance.

Liquidity risk consists of both asset liquidity risk and funding liquidity risk;

Asset liquidity risk or market/product liquidity risk, arises when transactions cannot be conducted at quoted market prices due to the size of the required trade relative to normal trading lots.

Funding liquidity risk, also called , arises when the institution cannot meet payment obligations.

These two types of risk interact with each other if the portfolio contains illiquid assets that must be selling at distressed prices. Funding liquidity needs can be meting from

- (i) Sales of cash,
- (ii) Sales of other assets,
- (iii) Borrowings

Sources of Risk

Sources of risk can be defined as currency risk, fixed income risk, equity risk, commodity risk.

Currency risk: arises from potential movements in the value of foreign currencies. This includes currency-specific volatility, correlations across currencies, and devaluation risk. Currency risk arises in the following environments.

In a *flexible* system, the external value of a currency is free to move, to depreciate or appreciate, as pushed by market forces. An example is the dollar/euro exchange rate. In a *fixed* system, a currency's external value is fixed (or pegged) to another currency. An example is the Hong Kong dollar, which is fixed against the U.S. dollar. This does not mean there is no risk, however, due to possible readjustments in the *fixed* system, called devaluations or revaluations. In a *flexible* system, a currency that was previously fixed becomes flexible, or vice versa. For instance, the Argentinean peso was fixed against the dollar or Turkish TL had fixed against the dollar but now its floating currency system is using.

Currency risk is also related to other financial risks, in particular interest rate risk. Often, interest rates are raised in an effort to stem the depreciation of a currency, resulting in a positive correlation between the currency and the bond market. These interactions should be taken into account when designing scenarios for stress-tests (Jorion, 2003, p: 283).

On the other hand *fixed income risk* arises from potential movements in the level and volatility of bond yields. Credit spread risk is the risk that yields on duration-matched credit-sensitive bond and Treasury bonds could move differently (Jorion, 2003; p285).

Equity risk arises from potential movements in the value of stock prices, *commodity risk* arises from potential movements in the value of commodity contracts, which include agricultural products, metals, and energy products.

In addition to traditional market sources of risk, positions in commodity futures are also exposed to delivery and liquidity risks. Asset *liquidity risk* is due to the relative low volume in some of these markets, relative to other financial products. Also, taking delivery or having to deliver on a futures contract that is carried to expiration is costly. Transportation, storage and insurance costs can be quite high (Jorion, 2003; p.301).

The Capital Asset Pricing Model

Capital asset pricing model (CAPM), which is a model that indicates what should be the expected or required rates of return on risky assets. This transition is important because it helps you to value an asset by providing an appropriate discount rate to use in any valuation model. Alternatively, if you have already estimated the rate of return that you think you will earn on an investment, you can compare this *estimated* rate of return to the *required* rate of return implied by the CAPM and determine whether the asset is undervalued, overvalued, or properly valued (Reilly & Brown, 2002; p.246). The capital asset pricing model (CAPM) is an equilibrium model for expected returns and relies on a set of rather strict assumptions. CAPM Assumptions are (Eric Zivot, 2000; p.1):

1. Many investors who are all price takers
2. All investors plan to invest over the same time horizon
3. There are no taxes or transactions costs
4. Investors can borrow and lend at the same risk-free rate over the planned investment horizon
5. Investors only care about expected return and variance. Investors like expected return but dislike variance. (A sufficient condition for this is that returns are all normally distributed)
6. All investors have the same information and beliefs about the distribution of returns
7. The market portfolio consists of all publicly traded assets

The implications of these assumptions are as follows;

1. All investors use the Markowitz algorithm to determine the same set of efficient portfolios. That is, the efficient portfolios are combinations of the risk-free asset and the tangency portfolio and everyone's determination of the tangency portfolio is the same.
2. Risk averse investors put a majority of wealth in the risk-free asset (i.e. lend at the risk-free rate) whereas risk tolerant investors borrow at the risk-free rate and leverage their holdings of the tangency portfolio. In equilibrium, total borrowing and lending must equalize so that the risk-free asset is in zero net supply when we aggregate across all investors.
3. Since everyone holds the same tangency portfolio and the risk-free asset is in zero net supply in the aggregate, when we aggregate over all investors the

aggregate demand for assets is simply the tangency portfolio. The supply of all assets is simply the market portfolio (where the weight of an asset in the market portfolio is just the market value of the asset divided by the total market value of all assets) and in equilibrium supply equal demand. Therefore, in equilibrium the tangency portfolio is the market portfolio.

4. Since the market portfolio is the tangency portfolio and the tangency portfolio is (mean-variance) efficient the market portfolio is also (mean-variance) efficient.

5. Since the market portfolio is efficient and there is a risk-free asset the security market line (SML) pricing relationship holds for all assets (and portfolios)(Eric Zivot, 2000; p.2).

$$E[R_i] = r_f + \beta_{i,M}(E[R_M] - r_f)$$

where R_i denotes the return on any asset or portfolio i , R_M denotes the return on the market portfolio and $\beta_{i,M} = \text{cov}(R_i, R_M) / \text{var}(R_M)$. The SML says that there is a linear relationship between the expected return on an asset and the beta of that asset with the market portfolio. Given a value for the market risk premium, $E[R_i] - r_f > 0$, the higher the beta on an asset the higher the expected return on the asset. The SML relationship can be rewritten in terms of risk premium by simply subtracting r_f from both side of the SML equation:

$$E[R_i] - r_f = \beta_{i,M}(E[R_M] - r_f)$$

* The CAPM predicts that only the covariance of returns between asset i and the market portfolio influences the average excess return on asset i . No additional variables such as the dividend price ratio, the size of the firm or the price-earnings ratio should influence average excess returns on a stock. All contributions to the risk of asset i , when it is held as part of a diversified portfolio, are summed up in its beta. The *beta* (β) of a security represents that part of risk that cannot be diversified away, hence: Beta represents an asset's systematic (market or non-diversifiable) risk and is the only source of risk that contributes to the excess return of asset i . An estimate of an asset's beta can be obtained using an ordinary least-squares *time series* regression where $\beta_i = \text{covariance}(R_i, R_m) / \sigma_m^2$ is the formula for the ordinary least-squares estimate of beta.

$$\mu_i - r_f = \beta_{i,M}(\mu_M - r_f)$$

In terms of risk premium, the SML intersects the vertical axis at zero and has slope equal to $\mu_M - r_f$, the risk premium on the market portfolio (which is assumed to be positive). Low beta assets (less than 1) have risk premium less than the market and high beta (greater than 1) assets have risk premium greater than the market.

Arbitrage Pricing Theory

CAPM model developed under some rather restrictive conditions. It is a static one-period model, with homogeneous expectations, no taxes, unlimited liability, zero transaction costs, and well-functioning capital markets. Relaxing these assumptions has been the subject of active research. First, alternative models of asset pricing had developed. For example, one approach that does not rely on the mutual fund theorem is the arbitrage-pricing model proposed by Ross. In contrast with the CAPM, it allows for multiple risk factors. Second, in general, the presence of asymmetric information invalidates all CAPM results. This includes heterogeneous expectation among investors, which is sufficient to invalidate the mutual fund theorem. And asymmetric information between firm managers and investors can create adverse incentives for firm decisions. Over the last twenty years, this has stimulated much research on the economics of corporate governance (Chavas, 2004; p.137).

The Arbitrage pricing theory (APT) is an extremely appealing model. It depends on the assumption that a rational equilibrium in capital markets precludes arbitrage opportunities. A violation of the APT's pricing relationships will cause extremely strong pressure to restore them even if only a limited number of investors become aware of the disequilibrium (Bodie, Kane, Marcus, 2004, p339).

The APT yields an expected return–beta relationship using a well-diversified portfolio that practically can be constructed from a large number of securities. In contrast, the CAPM is derived assuming an inherently unobservable “market” portfolio. In spite of these appealing advantages, the APT does not fully dominate the CAPM. The CAPM provides an unequivocal statement on the expected return–beta relationship for all assets, whereas the APT implies that this relationship holds for all but perhaps a small number of securities. This is an important difference, yet it is fruitless

to pursue because the CAPM is not a readily testable model in the first place. A more productive comparison is between the APT and the index model (Bodie, Kane, Marcus, 2004; p.340).

Recall that the index model relies on the assumptions of the CAPM with the additional assumptions that;

- (1) A specified market index virtually perfectly correlated with the (unobservable) theoretical market portfolio,
- (2) The probability distribution of stock returns is stationary, so that sample period returns can provide valid estimates of expected returns and variances.

The implication of the index model is that the market index portfolio is efficient and that the expected return–beta relationship holds for all assets. The assumption that the probability distribution of security returns is stationary and the observables of the index make it possible to test the efficiency of the index portfolio and the expected return–beta relationship. The arguments leading from the assumptions to these implications rely on mean variance efficiency; that is, if any security violates the expected return–beta relationship, then many investors (each relatively small) will tilt their portfolios so that their combined overall pressure on prices will restore an equilibrium that satisfies the relationship. In contrast, the APT uses a single-factor security market assumption and arbitrage arguments to obtain the expected return–beta relationship for well-diversified portfolios. Because it focuses on the no-arbitrage condition, without the further assumptions of the market or index model, the APT cannot rule out a violation of the expected return–beta relationship for any particular asset. For this, we need the CAPM assumptions and its dominance arguments.

Single Index Model

The single-index model (SIM) is not really a ‘model’ in the sense. Which it embodies any behavioral hypotheses (e.g. about the return required to compensate for holding ‘market risk’) but it is merely a *statistical assumption* that the return on *any* security R_{it} may be adequately represented as a linear function of a single (economic) variable I_t (e.g. inflation or interest rates):

$$R_{it} = \theta_i + \beta_i I_t + \varepsilon_{it}$$

Where ε_{it} is a random error term and equation given above holds for any security (or portfolio) $i = 1, 2, \dots, n$ and for all time periods. Hence I_t could be any variable that is found to be correlated with R_{it} , and the SIM has no specific theoretical model that seeks to explain this observed correlation.

The independence assumption across different securities rarely holds. Particularly when the stocks are within the same country index, it is unlikely that ‘shocks’ or ‘news’ that influence returns on firm A will not also sometimes influence the returns on firm B. When comparing returns in different countries the SIM has somewhat greater applicability, since macroeconomic shocks (e.g. unexpected changes in interest rates) may not be synchronized across countries.

However, unbiased estimates of the parameter can be obtained even when the residual returns are correlated and therefore the SIM is quite widely used in practice. Also, it can be ‘improved’ by extending it to a ‘multi-index’ model by including more variables that are thought to influence all stock returns. For example, macroeconomic variables such as interest rates or exchange rates or ‘factor-mimicking’ variables such as the returns on ‘high minus low book-to-market value’ shares.⁴ Such multifactor models could be used to pick undervalued and overvalued stocks, in the same way as we used the SML previously (Alexander, Sheedy, Koenig, 2004; p.12).

Multi Factor Models

CAPM, the APT allows a number of potential variables (factors) to influence the expected return on any asset i . The CAPM has only one factor, namely the excess market return. Broadly speaking, the APT allows the *return* R_{it} on asset i to be influenced by a number of market-wide variables or ‘factors’, such as interest rates and the exchange rate. The sensitivities of the return on asset i to each of these factors are known as the ‘factor betas’. The APT leads to a regression model:

$$R_{it} = a_i + \sum_{j=1}^k b_{ij} F_{jt} + \varepsilon_{it}$$

where F_j is the j th factor (variable), b_{ij} is the beta of the j th factor and ε_{it} is a random error. These factor betas are of course conceptually different from ‘the beta’ in the CAPM. Using a relatively sophisticated proof based on risk-free arbitrage, it is possible to show that equation gives an explicit expression for the *equilibrium return* ER_i on any risky asset:

$$ER_i = \lambda_0 + \lambda_1 b_{i1} + \lambda_2 b_{i2} + \dots + \lambda_k b_{ik}$$

Equation is similar to the CAPM equation if we assume there is only a single factor that is the excess return on the market portfolio. Similarly, this equation is the APT equivalent of the SML, since it shows that the expected return on any asset i depends linearly on a set of (factor) betas.

Credit Risk and Basel

Credit risk is the distribution of financial losses due to unexpected changes in the credit quality of counterparty in a financial agreement or in other words the risk of an economic loss from the failure of a counterparty to fulfill its contractual obligations. Its effect measured by the cost of replacing cash flows if the other party defaults. Examples range from agency downgrades to failure to service debt to liquidation. Credit risk pervades virtually all financial transactions. The distribution of credit losses is complex. At its center is the probability of default, by which we mean any type of failure to honor a financial agreement. To estimate probability of default, we need to specify

- model of investor uncertainty;
- model of the available information and its evolution over time; and
- model definition of the default event.

However, default probabilities alone are not sufficient to price credit sensitive securities. We need, in addition,

- model for the risk free interest rate;
- model of recovery upon default; and
- model of the premium investors require as compensation for bearing systematic credit risk.

The credit premium maps actual default probabilities to market-implied probabilities that are embedded in market prices. To price securities that are sensitive to the credit risk of multiple issuers and to measure aggregated portfolio credit risk, we also need to specify

- model that links defaults of several entities.

There are three main quantitative approaches to analyzing credit. In the *structural* approach, we make explicit assumptions about the dynamics of a firm's assets, its capital structure, and its debt and shareholders. A firm defaults if its assets are insufficient according to some measure. In this situation, a corporate liability characterized as an option on the firm's assets.

The *reduced form* approach is silent about why a firm defaults. In this approach, prices of credit sensitive securities can be calculate as if they were default free using an interest rate that is the risk free rate adjusted by the intensity. The *incomplete information* approach combines the structural and reduced form models. (Giesecke, Shimko, 2002; p.2).

Credit risk involves the possibility of non-payment, either on a future obligation or during a transaction. Section introduces settlement risk, which arises from the exchange of principals in different currencies during a short window. Counterparty credit risk consists of both pre-settlement and settlement risk. is the risk of loss due to the counterparty's failure to perform on an obligation during the life of the transaction. This includes default on a loan or bond or failure to make the required payment on a derivative transaction. Pre-settlement risk can exist over long periods, often years, starting from the time it is contracted until settlement.

Settlement risk is due to the exchange of cash flows and is of a much shorter-term nature. This risk arises as soon as an institution makes the required payment until the offsetting payment is received. This risk is greatest when payments occur in different time zones, especially for foreign exchange transactions where nationals exchanged in different currencies. Failure to perform on settlement can be caused by counterparty default, liquidity constraints, or operational problems (Jorion, 2003; s.394).

Credit risk measurement systems attempts to quantify the risk of losses due to counterparty default. The distribution of credit risk can be viewed as a compound process driven by these variables

- Default: which is a discrete state for the counterparty the counterparty is either in default or not. This occurs with some probability of default
- Credit exposure : also known as exposure at default which is the economic value of claim on the counterpart at the time of default.

The tools recently developed to measure market risk have proved invaluable to assess credit risk. Even so, there are a number of major differences between market and credit risks, which listed in Table:

Item	Market risk	Credit risk
Sources of risk	Market risk only	Default risk, market risk, recovery risk
Distributions	Mainly symmetric	Skewed to the left
Time horizon	Short term (days)	Long term (years)
Aggregation	Business / trading unit	Whole firm vs. counterparty
Legal issues	Not applicable	Very important

Table 2: Comparison of Market Risk and Credit Risk, Source(Jorion, 2003; p.398).

Credit risk results from a compound process with three sources of risk. The nature of this risk creates a distribution that strongly skewed to the left, unlike most market risk factors. At best, the counterparty makes the required payment and there is no loss. At worst, the entire amount due is lost.

The time horizon is also different. Whereas the time required for corrective action is relatively short in the case of market risk, it is much longer for credit risk. Positions also turn over much more slowly for credit risk than for market risk, although the advent of credit derivatives now makes it easier to hedge credit risk. Finally, the level of aggregation is different. Limits on market risk may apply at the level of a trading desk, business units, and eventually the whole firm. In contrast, limits on credit risk defined at the counterparty level, for all positions taken by the institution. Credit risk can also mix with market risk. Movements in corporate bond prices indeed reflect changing expectations of credit losses. In this case, it is not so clear whether this volatility should be classify into market risk or credit risk (Jorion, 2003: p.399).

Basel II

Basel II has given new urgency to banks' focus on managing economic capital. By better aligning banking risks and their management with regulatory capital requirements. Basel II provides a new incentive for banks to renew their risk management efforts by developing a capital planning

approach that integrates regulatory and economic capital models into an overall framework. Moreover, under Basel II's Pillar 2, bank supervisors may require that a bank hold extra capital if they find that its risk management framework is inadequate (Kpmg, 2003; p2).

To comply with Pillar 2, banks will have to develop and use various models (risk-specific and for economic capital management) to allocate capital to business activities based on how much risk, and of what type, an individual activity contributes to the bank's portfolio of risks. These models would determine how much capital is required to support the various activities of the bank purpose regulatory capital is not intent to serve for all activities, even under the more risk-sensitive calculations of Basel II.

The business benefits a bank can derive from such economic capital approaches extend beyond Basel II compliance. Once risk-return profiles and risk-adjusted performances are comparable across business lines, and measurable for the entity as a whole, banks can address two key business objectives:

- 1) Specify risk profile to debt-holders and
- 2) Generate value for shareholders.

The Basel Committee acknowledges that banks would not be likely to use a single economic capital metric as the basis for decision-making but that such a measure could be useful in bringing "consistent discipline and input to risk-related decision-making". The Basel Committee also recognizes that many firms and their managements realize that "economic capital results are one factor among several used in making decisions on risk control, the adequacy of firm wide capital, and the allocation of capital to the business lines. Furthermore, in no case does economic capital supplant the firm's existing risk management framework" The Committee notes that because the use of economic capital models represents a significant cultural change for organizations, such use requires strong board and management support.

Regulatory capital management helps to ensure the soundness and stability of the banking sector and protect depositors. Regulators, Inclusive of Tier 1 and Tier 2 capital define regulatory capital and supplementary capital, meant to assure that a bank is able to cover major potential losses without causing a banking crisis

Economic capital management helps to identify value-creating business activities to satisfy investors' information needs, and, with Basel II, to fulfill Regulatory requirements. Economic capital is anything that can absorb economic losses without affecting debt-holders, not just book capital but may include intangibles and hidden reserves or charges and necessary to absorb potential losses associated with any of the risks already assumed or to be assumed.

Risk measurement focuses on unexpected losses, which generally arise either through, lower than expected returns from assets or as a result of having to pay more than anticipated for liabilities. It is unexpected losses that lead to volatility in the earnings of a bank ranging from lower profits to balance sheet losses and, potentially, bankruptcy. Different business activities lead to various unexpected losses. To link risk with capital, these different risks must be measured individually and aggregated to a single risk metric, both by business line and across the bank as a whole. Moreover, even in the case of rare but likely events that might generate unusually high unexpected losses (e.g., as in some past market crashes), the bank's capital must be high enough to ensure the viability of the institution. Linking risk to capital requires:

- Identification of all material risks and measurement of these risks on the basis of defined methods including back-testing (validation of risk measures by comparing past unexpected losses/gains with real outcome) and stress-testing (measurement of risks for specified extreme events)
- Aggregation of all risks for business lines and for the bank as a whole
- Specification of the risk-taking capacity and the tolerance for risk (i.e., definition of target rating and the amount of equity that will serve as economic capital)

Apart from business needs, Basel II also requires that banks implement an economic capital management framework that assesses "the overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital level.

Basel II requires that banks implement an enterprise-wide risk management framework that links regulatory and economic capital. Thus, Basel II requires that banks relate their capital levels to their risk profiles. The Basel Committee offers specific guidance in how to link capital and risk (thereby acknowledging that, apart from Basel II compliance, the bank can derive

business benefits from economic capital planning). The Committee has identified principles of supervisory review, which form the basis of its economic capital provisions and set out the components of a framework that links capital adequacy with risk management. These components are described in excerpts from the Basel Committee's April 2003 Consultative Document, The New Basel Capital Accord.

TYPE OF RISK	CRITERIA FOR MEASUREMENT
All	Consistent approach Consistent determination of the assumed holding period and confidence level Regular back-testing Regular stress-testing
Credit Risk: the risk that unexpected losses could arise because of a customer's default or credit rating downgrade; such risks usually include issuer, counterparty, settlement, default, and country risk.	<ul style="list-style-type: none"> • Precise rating system for classifying borrowers effectively (and assigning them appropriate risk factors) • Regular adjustment of credit rating and valuation of collateral • Availability of all relevant details of the loan agreement in the bank's IT systems • Regular administration of market data (especially corporate data) • Consistent and adequate portfolio model for, inter alia, risk measurements • Regular back-testing to check the models and assumptions used • Supplementary stress scenario analysis to capture extreme events
Operational Risk: the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events.	<ul style="list-style-type: none"> • Clear definition and categorization of risk • Comprehensive collation of data on losses • Qualitative, forward-looking risk assessment
Market Risk: the risk of losses arising as a result of unexpected changes in market parameters; these are generally defined as	<ul style="list-style-type: none"> • Capturing of all material risk factors based on detailed analysis of the products available (continued in the new product process)

<p>interest-rate, foreign-exchange, share-price and credit-spread risks as well as risks relating to precious metals, commodities, equity investments, and real estate.</p>	<ul style="list-style-type: none"> • Regular administration of market data • Regular back-testing to check the models and assumptions used • Supplementary stress scenario analysis to capture extreme events
<p>Liquidity Risk: the risk of having to pay higher spreads or becoming illiquid in the bank's liquidity management operations or of having to accept lower investment rates than the bank's standard rates. This risk includes that of additional costs in the event of illiquidity (bail-outs, intervention by the regulatory authorities, etc.). Liquidity risk comprises neither interest-rate risk nor the liquidity risk attaching to products and markets; these are included under market risk.</p>	<ul style="list-style-type: none"> • Organizational set-up; liquidity management as a separate function within asset liability management • Modeling of cash flows specifically for the purpose of liquidity risk management and control according to their (assumed) maturity from a liquidity point of view (as opposed to interest rate risk management point of view) • Measurement of potential gap exposure and modeling stochastic cash flows • Degree of sophistication for modeling liquidity risk
<p>Strategic Risk: the risk of unexpected losses arising as a result of incorrect decisions taken by senior management; depending on definition, it can include risks arising from an incorrect assessment of certain market segments, the wrong market approach, or an inappropriate internal organizational structure.</p>	<p>Comprehensive information of assumed strategic risk of different business lines and comparison with benchmark information</p>
<p>Business Risk: the risk of losses resulting from unexpected changes in business volumes and/or margins; depending on definition, it can include the risk of shrinking business volumes, rising costs (for staff, IT, etc.) and falling revenues (due to factors such as competition).</p>	<ul style="list-style-type: none"> • Comprehensive information and histories of cost and expenditure structures and their correlations at all levels of the bank

Source: KPMG international 2003; p.13

The RAROC

The methodology developed here produces the necessary tools to estimate the quantitative impact of these approaches on the RAROC and, in turn, on the tariffs applicable to financial products. RAROC stands for *Risk Adjusted Return on Capital*. This performance measure – initially developed by consultant experts in the banking sector in the early nineties – expresses the adjusted return of an investment for its risk, related to the economic capital consumed when undertaking this investment. RAROC calculations may be equally well applied to a single transaction (a loan authorization, for instance), a client (e.g. the total business generated with a given client), a segment of clientele (retail, SME's), or even a business unit (Chapelle, Crama, Hübner, Peters, 2004, p.21).

The general formula for RAROC writes:

$$\text{RAROC} = (\text{Revenues} - \text{EL}) / \text{Economic capital}$$

The adjustment for risk in RAROC takes place both at the numerator and the denominator of the ratio. The nominal return of the investment considered as first adjusted by reducing its amount by the expected losses (EL) that are assessed for a transaction of this type. The expected losses can be defined as the average losses previously observed for similar operations.

The denominator – the economic capital – also reflects the risk taken with a transaction, since it is the capital internally calculated as the amount of own funds necessary to cover the losses with the confidence interval required for this activity.

Until recently, the RAROC performance measure had been mostly used in the credit activities of banks. The underlying idea is to make sure that the revenues generated by a loan or by a client are sufficient to cover the remuneration of the regulatory capital that it consumes.

With the Basel Accord now defining regulatory capital for operational risks as well, banks should apply an analogous RAROC approach with operational risk.

Conclusion

Financial risk management is the carry out of creating economic worth in a firm by means of financial instruments to manage exposure to risk, mainly credit risk and market risk. Other types include Foreign exchange, Shape, Volatility, Sector, Liquidity, Inflation risks, etc. Financial risk management requires identifying its sources, measuring it, and plans to concentrate on them. Financial risk management can be either qualitative or quantitative. As a specialization of risk management, financial risk management focuses on when and how to hedge which is a position established in one market in an attempt to offset exposure to price fluctuations in some opposite position in another market with the goal of minimizing one's exposure to unwanted risk that using financial instruments to manage costly exposures to risk.

In the banking sector worldwide, the Basel Accords are generally adopted by internationally active banks for tracking, reporting and exposing operational, credit and market risks. In addition to that general view reflects the risk must not be only measured but efficiently communicated and managed right across the firm.

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The Effect of the Legal and Administrative Regulations on Business

Dr. Fehmi Agca

Introduction

This part will try to clarify the links between legal and administrative rules and business, to develop a new perspective that would be helpful to managers and lawyers.

The relationship between the legal discipline and business problems can be better understood by an examination of the appropriate analogies between the business law and the everyday business problems encountered in production, finance and human resource management.

People spend very little time thinking about how to make a decision. This is a classic and common symptom of the failure. Knowing what should be done, but not actually doing it. There are three generic mistakes which characterise many of the failed decisions. These are making premature commitments, spending money on the wrong things and using failure-prone decision-making processes. If the decision-making processes are effective, they will prevent premature commitment. In this respect, legal and administrative rules would have a crucial role to orient the business organisations to follow an effective and correct decisionmaking process.

The rule of law

The “rule of law” is a system, where law is used primarily as a mechanism for exerting governmental power, with dispute resolution as a subordinate function. A key characteristic of the “rule of law” is the notion that government is itself the subject of law and should have the following characteristics (World Bank, 1992);

- published and thus readily accessible
- certain, clear and stable, excluding unconstrained discretion
- ensure the application of rules without discrimination
- binding decisions by an independent judiciary
- limited delay in judicial proceedings
- effective judicial sanctions
- accountability of the government and its officials in relation to relevant rules

Judicial decisions constrain executive discretion, and measure a system's performance accordingly. In many developing countries, legal reforms have failed to achieve the desired objective. The courts have continued to be weak, often as a result of political interference, a lack of transparency of decision-making and corruption among the judiciary, police and bureaucracy. There can be two principal explanations for the failure of the reforms. Bureaucratic failure and the lack of political will for the necessary reforms. (Seidman, 1994)

Western models of law and development

Some economic analysts envisage that the import of Western models is the key to success in the developing states. But, the matter is more complex. The role of law and legal institutions in such societies can be understood by reference to their cultural and political environment. Most of the developing states have a general question of reconciling Western-style legal institutions with customary law. They have a concern against the Western values which remains from the colonial period.

Another perspective on law and development reflected the collectivist ideology of the 1960s and 1970s. On this view, the mistake was to import legal institutions designed primarily for liberal capitalist economies. What was needed was a strong state interventionist approach, capable of invigorating economic development by Keynesian measures, rendering developments which are less dependent on external forces and also redistributing the resources more equitably. (Snyder, 1980)

As the economic crisis extended to developing countries, their dependence on donor organisations grew. Legal reforms occupied a prominent place on their agenda for two reasons: First, because, consistent with policy analysis in the industrialised world, economic stagnation was identified with notions of “state failure” and the regeneration of the private sector was considered to require new legal definitions and processes for de-limiting the role of the state. Secondly, influential voices were becoming increasingly convinced that “good governance” was a crucial variable in explaining differential rates of economic growth. Since donor organisations were reluctant, or not allowed, to address the political dimensions of good governance, the focus shifted to strong legal frameworks and effective principles of accountability. Loans and other forms of aid were thus made conditional on progress with legal and judicial reform. (World Bank, 2002)

The effect of culture on the rule of law

Although appropriate institutional structures are established with adequate resources, the individuals, who are involved in decision making process in developing countries, will not behave in the same way as their Western counterparts. Family groups rather than individuals are the building blocks of society. A high level of discretion is left to decision makers. There is a strongly hierarchical view of society. The existence of this kind of culture is not incompatible with strong economic performance.

The quality of the legal institutions may be a consequence of economic growth. There is also the question of human capital, lower educational level affecting both the quality of decision-making by officials and the ability of ordinary citizens to initiate or contribute to the legal enforcement process.

In many societies, indigenous law is not static, but rather flexible and adaptable to the changing political and economic circumstances. Regulatory goals may be more effectively pursued if they are compatible with community norms.

In Western models of regulation, there is a tendency to replace heavily rule-based regimes by more general principles, thus conferring more discretion on regulatory agencies to take account of specific and localised circumstances. The exercise of discretion requires greater knowledge and expertise than the simple application of rules and can be more easily exploited for the purposes of corruption.

Corruption is a major problem of legal and regulatory systems in less developed countries. Regulation confers power on institutions and officials, to make decisions on the use of resources which are affected by the regulatory instrument. Some forms of regulatory decisions involve personal contact between official and regulatee, thus enhancing the opportunities for corrupt transactions.

Deregulation is, a major theme in Western regulatory developments and the first and most obvious point is that, since many opportunities for corrupt transactions arise from regulation, a reduction in the amount or intensity of regulation should reduce the level of corruption. (Lederman, Loayza and Soares, 2001)

While these developments require a strong and impartial judiciary, a proactive citizenry, adequate resources for auditing and monitoring behaviour and effective procedures for implementing as well as formulating the principles of administrative law, in many countries they will have to overcome deeply embedded cultural attitudes. This requires a higher cost. Some argue that there should be a special anti-corruption agency, independent of the police, and may create more opportunities for the fight against the corruption. (Kaufmann, 1997) On the other hand, investments on information technology can makes decisionmaking structure more transparent, and transactions made electronically depersonalise the process and reduce corruption.

Institutional arrangements for regulation in less developed countries

Through globalisation of markets, Western ideas of regulation and deregulation have an increasing effect on governments in developing countries. Donor institutions, such as the World Bank and the International Monetary Fund, have applied pressure for Western models to be adopted by these countries. The assumption is, that these models serve to improve economic performance. The key question is, to what extent the recipient country is able to integrate the models successfully, particularly with reference to their institutional implications.

Surveys of empirical studies undertaken on the relationship between legal and institutional variables and economic growth in developing countries reveal very mixed results. Generally, higher levels of democracy with the higher economic growth rates appear not to be conclusive.

The quality of the judicial process is assumed to be related to economic performance. It has been shown that the growth occurs in countries where the creditors are guaranteed repayment of their loans and where corporate shareholders are adequately protected.

The legal infrastructure connected to economic growth does not necessarily emerge from Western models. The “rule of law” is important, in particular, where it implies the stability of rulemaking, respect for basic property and contract rights and an independent judiciary with some ability to command compliance from government and politicians. At the same time, enforcement of the other dispute settlement systems should be sufficiently effective.

Impact of the business regulations

Reduction of administrative tasks caused by regulatory measures is a political priority for governments around the globe. To support these efforts, governments need a strong institutional set-up as well as measurement and monitoring systems. It is possible to outline the capabilities in the following areas: (Ramboll Management, 2005)

- Measuring administrative burdens from existing or revised legislation
- Regulatory impact assessments
- Measuring economic impacts.

Analysis of business regulation is complex by nature and requires experience in terms of methodology and implementation. Developing and improving these models and methods, can play an important role, through elaboration of manuals and general methodology guides. Through investments in education and training, recruitment of consultants with specialised skills and development of methods and concepts supported by information technology, with projects on administrative and regulatory burdens for governments and organisations may have a significant effect to establish effective regulatory systems on business.

To understand the impact of regulations, necessary information can be obtained annually by combining large-scale surveys among a representative sample of private businesses through detailed interviews. An internet-based dialogue system can be developed to support these measurements, where access can be given to departmental officers, partners and other stakeholders.

The system can also be used internally to handle the work flow in general by providing facilities;

- to compile legislative documents and information obligations
- to register data on businesses in the measurement and data from interviews
- to carry out estimates and store the results.

Prior assumptions can be made for the potential consequences of new or revised legislation through analyses of the activities of companies, in order to meet the requirements of the legislation. In addition, a series of pilot studies can be carried out to test the methodology and to assess the administrative consequences of new legislation. The objective was to facilitate immediate and effective measurements of the impact of new legislation on companies, in order to provide a basis for minimising the burdens imposed by the legislation prior to effectuation.

The most common ex-ante analyses can be based on interviews with businesses, to test if the law affects business and industry in general sectors or specific sectors and subsectors. Generally, ex-ante assessments are a mandatory part of the preparation of legislation that affects the private business sector. The results of the tests are included in the law proposals.

Ramboll Management has assisted both Danish and Swedish governments in developing a methodology for measuring the entire range of economic impacts of the regulations on businesses. The methodology includes tools allowing for quantitative assessments of the impact of legislation on businesses in terms of administrative impact, direct impact, indirect impact and structural impact. In addition, they assisted the European Commission in a pilot study, including the development of a methodology for assessing the impact of EC legislation on businesses among eight EU Member States. The methodology allows for quantitative assessments of the impacts in terms of both compliance costs and administrative costs.

European Commission intended that regulatory impact assessments (RIA) should be developed further and used as a standard tool in the preparation of EC legislation by the Directorates-General. The main requirements for the RIA-Guidelines may be summed up in the following points: (Ramboll Management, 2005)

- RIA should adopt a comprehensive approach to the assessment of regulatory impact through the inclusion of direct and indirect impact and identification of costs and benefits to target groups and stakeholders.
- The RIA approach is an integrated approach that includes and replaces previous tools for impact assessment on more specific areas, such as businesses, trade, gender and environment.
- RIA is an in-depth analysis of the potential impact on the economy, on society and on environment and is based on the principle of proportionate analysis, which means that the depth of the analysis will be proportionate to the significance of the likely impacts.

The effect of right-to-work laws on business

Under state right-to-work laws, union membership is not a requirement for employment and workers. This makes it more difficult for unions to organize and attract new members and prevent the growth of unions in new areas. Proponents of right-to-work laws believe that states with these laws are more “business-friendly” and thus exhibit higher economic growth than states without such legislation. (Website of the National Right-to-Work Legal Defense Foundation)

Although there has been considerable research on the influence of right-to-work laws on union density, there has been no study of the right-to-work laws' effect on business formation and economic growth. State-level data shows that right-to-work states have average wages that are significantly higher than non-right-to-work states, with results that are robust across a wide variety of specifications. States aim to control economic conditions by adopting right-to-work legislation. States that adopted right-to-work laws were generally poorer than other states.

The business condition variables measured by states are; (<http://www.bea.gov/regional/spi/>)

1. Number of employer firms,
2. Total self-employed in occupation,
3. Number of business formations,
4. Number of business terminations,

5. Number of business bankruptcies,
6. Proprietors' income.

Two additional factors can be used as the measures of overall economic viability of a state;

1. Per capita personal income
2. The employment rate

Per capita personal income and the employment rate will be regarded as explanatory variables along with the exogenous right-to-work. In other words, we would like to determine if right-to-work legislation has had any influence on business condition variables.

It may initially seem that the right-to-work laws may be right in saying that right-to-work laws help to “revive” state economies and that right-to-work states exhibit a higher standard of living than do non-right-to work states. (USA Today, 2007) However, this conclusion may be premature, since any inferences cannot be made without examining the nature of the differences in the business and economic conditions.

While some argue that people have been “pulled” into entrepreneurship by the guarantee of independence, self-development or exploring a market opportunity, others present reasons that individuals have been “pushed” into it because of restructuring and downsizing unemployment. Thus, business conditions are more favorable in the right-to-work relative to the non-right-to-work states, because the overall economic measures of personal income and employment are held constant across all states.

The implication here is that although right-to-work states may be more attractive to business, this does not necessarily translate into enhanced economic viability for everyone in the state. There are no significant differences in the number of firms and business formations between the right-to-work and non-right-to-work states. (Stevans, November 2007)

Effects of product liability laws on small business

If a contractual relationship exists between the parties, the injured party is expected to base his recovery on contract. Wholesalers in Canada are generally not liable under contract or tort unless they are expected to make an intermediate inspection of the goods or they are an importer of the goods. If a wholesaler is an importer of goods and the manufacturer has no regular place of business in Canada, then in order to provide the injured plaintiff with a meaningful source of recovery, the importer/wholesaler will be held liable as if it were the manufacturer of the goods. This makes manufacturers and importers the major targets of product liability litigation. For simplification, both will be referred to as manufacturers. The laws of Japan and the European Union reflect a similar position. This concept is reinforced by the principle that a Canadian manufacturer does not have the right to manufacture an inherently dangerous product when a method exists to manufacture that product without risk of harm. To do so subjects the manufacturer to liability even if the safer method is more expensive. (Journal of Small Business Management, July 1998)

Canada has recognized that direct proof of the condition in which the goods are sold may be unreasonably difficult to attain. This was considered sufficient evidence to require the manufacturer to prove that the defect had occurred after the product had been left to the manufacturer's hands. Since the manufacturer was unable to do this, it was found liable for the injury.

Without exact proof of the nature of the defect and the time of its creation, the consumer lost. Therefore, they were not the type of substantial changes in the product that would relieve the defendant of liability. The central premise in strict product liability is that an unreasonably dangerous product causes the plaintiff's injury. Because this is the major question regarding recovery, a good definition of what constitutes an unreasonably dangerous product should exist.

The law of strict product liability was originally developed in the United States and has long been considered a severe impediment to product development as a competitive disadvantage with their international counterparts. Taking into account this reality, the businesses selling abroad should continue to produce their products with great care and maintain insurance coverage adequate to meet all reasonable contingencies. The current trend throughout industrialized nations is to move toward the US-style strict liability methods of consumer recovery. (Journal of Small Business Management, July 1998)

Conclusion

Legal or administrative regulations taken from the developed states generally had different effects in practice, depending on the cultural or economic level of the states adopting these regulations. These regulations are accepted by the less developed countries, some times because of the pressures of the rich states, sometimes as a means to foster their economic development or to rearrange their businesses in line with the global changes.

Globalisation enforces all countries to follow similar rules for the business and trade. The main risk here is that the developed Western states try to dictate international rules on business, for their interests. As a result, these rules generally serve against the interests of the less developed states.

Another reason for the failure of these regulations lies on the fact that the bureaucratic inefficiency and the ineptness of the state organisations. These facts show that the establishment of an efficient and fair international legal system on business which can be relevant for all the countries in the world will take time.

Recognition of the conditions which makes easier the acceptance of transnational regulations might lead to more creative policy-making in relation to regulatory arrangements. For example, the exploration of the regulatory regimes which can be more compatible with traditional, customary law and its institutions will be an effective method of transformation.

Analogously regulatory goals and principles will be more effective if they can be internalised as social norms. Because, community disapproval can be more effective at inducing compliance than conventional penal or administrative sanctions.

On the other hand, the regulations facilitating personal contacts between officials and regulatees and enlarging consultation processes are generally not accepted, since these kind of regulations can generate greater opportunities for corrupt transactions.

Within the Western tradition there has been an increasing emphasis on regulatees and third parties contributing to regulatory policy and rule-making. There are potential benefits of this system, in terms of improved information flows, such as better transparency and greater accountability, but direct access to regulatory officials increases the opportunity for corrupt transactions.

The conditions in less developed countries may justify the much greater use of the regulatory instruments, compared with industrialised countries, but these conditions, particularly the opportunities created by their systems for private exploitation and corruption, makes difficult to achieve effective reforms in this area.

The successful examples of legal or administrative regulations related to business and economy in the developed or developing states should continue to be taken as a model by the rest of the world. Further sharing of the successful practices on this area will help to create more effective business relationships throughout the world and contribute to the economic development and international trade.

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Reengineering

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Introduction

Many managers, especially those in relatively successful businesses, naturally tend to keep using the same old process and technology. They believe that they have had all the debates they need to have and that the industry will continue to exist as it has for many years. But what will they do, for instance, if they suddenly find out that their business is potentially unsustainable, and the business must be reconfigured to maintain the economic development? Perhaps these managers have been around the old industry simply too long to be able or willing to imagine that new configuration.

Sustainable development expect from business leaders to use resources with aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for future generations. United Nations' "Agenda 21" emphasizes the need to change from old sector-centered ways of doing business to new approaches that involve cross-sectoral co-ordination and the integration of environmental and social concerns into all development processes (Agenda 21, 1992).

This is where reengineering the business comes in, changing the fundamentals of the business. A truly reengineered business finds out how to do more with less. But there is a fear of the unknown and its potential threats, its inevitable risks. Some managers are prevented from seeing the future because they are blinded by the sun of their current success and they cannot see the wall that they are driving right into. Also, many people suffer from a kind of subliminal denial of the future because to face it would be too traumatic (Champy, 2006, pp. xi-xii). They are unable to implement personal responsibility and to develop mechanisms to protect the environment.

Companies, even those with cultures receptive to process innovation, should not expect to achieve major change without making major commitments. Successful reengineering process relies on a wide range of skills. To effect

needed change, organizations must somehow mobilize sufficient technological, human and organizational, political, and process expertise with the requisite enablers. This necessarily involves assigning some of their best people, or, if the firm lacks the needed skills or methods internally, employing external consultants, to design and implement new processes. Absence of skills is as much a reason for caution as an unreceptive culture.

Consequently, process innovation must itself be viewed as a process, not a project. If initial efforts are successful, companies will move on to redesign other processes, a prospect that stretches to decades. Absence of such long-term orientation is often decried in contemporary business; process innovation is one more reason it cannot continue (Davenport, 1993).

This work will comparatively explore these basic issues and approaches of most influential researchers in field of business process reengineering, with specific focus on controversial issues and failures in this process.

History

In 1990, Michael Hammer, a former professor of computer science at the Massachusetts Institute of Technology (MIT), published an article in the Harvard Business Review, in which he claimed that the major challenge for managers is to obliterate non-value adding work, rather than using technology for automating it (Hammer, 1990). This statement implicitly accused managers of using information technology for automating existing processes rather than using it as an enabler for making non-value adding work obsolete. A similar idea was advocated by Thomas H. Davenport and J. Short in 1990 (Davenport, 1990), the same year as Hammer published his paper.

This idea, to unbiased review a company's business processes, was rapidly adopted by a huge number of firms, which were striving for renewed competitiveness, which they had lost due to the market entrance of foreign competitors, their inability to satisfy customer needs, and their insufficient cost structure. Even well established management thinkers, such as Peter Drucker and Tom Peters, were accepting and advocating business process reengineering (BPR) as a new tool for re-achieving success in a dynamic world. During the following years, a fast growing number of publications, books as well as journal articles, was dedicated to BPR, and many consulting firms embarked on this trend and developed BPR methods.

Despite critiques, reengineering was adopted at an accelerating pace and by 1993, as many as 65% of the Fortune 500 companies claimed to either have initiated reengineering efforts, or to have plans to do so. This trend was fueled by the fast adoption of BPR by the consulting industry, but also by the study *Made in America*, conducted by MIT, that showed how companies in many US industries had lagged behind their foreign counterparts in terms of competitiveness, time-to-market and productivity (Industry Week, 1994).

Definitions

Different definitions of business process reengineering can be found. We will focus here on most influential ones. "... The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service, and speed." (Hammer M. a., 1993)

Reengineering "encompasses the envisioning of new work strategies, the actual process design activity, and the implementation of the change in all its complex technological, human, and organizational dimensions."(Davenport, 1990).

Additionally, Davenport points out the major difference between BPR and other approaches to organization development (OD), especially the continuous improvement or TQM movement, when he states: "Today firms must seek not fractional, but multiplicative levels of improvement – 10x rather than 10%." Finally, Johansson provide a description of BPR relative to other process-oriented views, such as Total Quality Management (TQM) and Just-in-time (JIT), and state: "Business Process Reengineering, although a close relative, seeks radical rather than merely continuous improvement. It escalates the efforts of JIT and TQM to make process orientation a strategic tool and a core competence of the organization. BPR concentrates on core business processes, and uses the specific techniques within the JIT and TQM "toolboxes" as enablers, while broadening the process vision." (Johansson, 1993).

In order to achieve the major improvements BPR is seeking for, the change of structural organizational variables, and other ways of managing and performing work is often considered as being insufficient. For being able to reap the achievable benefits fully, the use of information technology (IT) is conceived as a major contributing factor. While IT traditionally has been used for supporting the existing business functions, it now plays a role as

enabler of new organizational forms, and patterns of collaboration within and between organizations.

Business strategy is the primary driver of BPR initiatives and the other dimensions are governed by strategy's encompassing role. The organization dimension reflects the structural elements of the company, such as hierarchical levels, the composition of organizational units, and the distribution of work between them. Technology is concerned with the use of computer systems and other forms of communication technology in the business. In BPR, information technology is generally considered as playing a role as enabler of new forms of organizing and collaborating, rather than supporting existing business functions. The people / human resources dimension deals with aspects such as education, training, motivation and reward systems. The concept of business processes - interrelated activities aiming at creating a value added output to a customer - is the basic underlying idea of BPR. These processes are characterized by a number of attributes: Process ownership, customer focus, value adding, and cross-functionality. (Business process reengineering, 2000).

Methodology

Although the labels and steps differ slightly, the early methodologies that were rooted in IT-centric BPR solutions share many of the same basic principles and elements. The following outline is one such model, based on the Process Reengineering Life Cycle (Guha, 1993).

1. Envision new processes
 1. Secure management support
 2. Identify reengineering opportunities
 3. Identify enabling technologies
 4. Align with corporate strategy
2. Initiating change
 1. Set up reengineering team
 2. Outline performance goals
3. Process diagnosis
 1. Describe existing processes
 2. Uncover pathologies in existing processes
4. Process redesign
 1. Develop alternative process scenarios
 2. Develop new process design
 3. Design HR architecture
 4. Select IT platform
 5. Develop overall blueprint and gather feedback

5. Reconstruction
 1. Develop/install IT solution
 2. Establish process changes
6. Process monitoring
 1. Performance measurement, including time, quality, cost, IT performance
 2. Link to continuous improvement
 3. Loop-back to diagnosis

One critical issue is: Who will lead the reengineering process? Experience shows that most professionals and managers are not completely qualified to lead and implement revolutionary process redesign. The MIS professional typically has too little training in process design and analysis and is likely to see things from the perspective of technology, not of added value to the customer. Senior executive leadership and guidance are essential to reengineering efforts, but who will actually devise and implement revolutionary process designs? Most companies have little or no experience envisioning and putting into practice radical changes in how they work. Operating managers, for example, know how to execute and control existing processes, not explode them. Most have never been encouraged to "think out of the box." Manufacturing and process engineers are trained to improve processes, not to abandon them and start over. Everyone involved will require extensive training and development. Some prediction for the distant future is that CIO will stand for Chief Innovation Officer, the catalyst of reengineering. (Miller, 1991)

The Role of Information Technology

Information technology (IT) was in the past an essential part of the reengineering concept. It is considered by some as a foremost enabler for new forms of functioning and collaborating within an organization and across organizational borders.

Early BPR literature identified several so called *disruptive technologies* that were supposed to challenge traditional wisdom about how work should be performed. (Hammer M. a., 1993)

- Shared databases, making information available at many places
- Expert systems, allowing generalists to perform specialist tasks
- Telecommunication networks, allowing organizations to be centralized and decentralized at the same time

- Decision-support tools, allowing decision-making to be a part of everybody's job
- Wireless data communication and portable computers, allowing field personnel to work office independent
- Interactive videodisk, to get in immediate contact with potential buyers
- Automatic identification and tracking, allowing things to tell where they are, instead of requiring to be found
- High performance computing, allowing on-the-fly planning and provisioning

In the mid 1990s, especially workflow management systems were considered as a significant contributor to improved process efficiency. Also ERP (Enterprise Resource Planning) vendors, such as SAP, JD Edwards, Oracle, PeopleSoft, positioned their solutions as vehicles for business process redesign and improvement. (Business process reengineering, 2000)

High-Tech Forces of Reengineering

Regarding high-tech forces used in change process, the most interesting view of what is likely to be part of our lives as we make our individual and corporate ways through the twenty-first century. Most researchers agree on one overall key point that has been at times somewhat controversial, that is, that science and technology will continue to have enormous impacts on all of us and these impacts, in the main, are almost always positive. To the extent that there are negative consequences, we tend to recognize that, and wish to mitigate such consequences.

However, it is also clear that we are determined to try to minimize these potential negatives through systematic programs and year-by-year expenditures of money. What we are not prepared to do is to give up the benefits of the technological advances. It is fair to assume that this attitude will prevail in the twenty-first century as well. There are five high-tech forces that make reengineering necessary and applicable today (Eisner, 2000, pp. 43-48):

1. The information age. It is a fact that the twenty-first century will represent the complete blossoming of the information age. Those with the right information, and the ability to do something constructive with it, will handle the power and increase the wealth. Information will allow enterprises to do what they do even better,

and also to create completely new enterprises, in terms of both products and services. Increased bandwidth and reduced cost characterize the information age, and even information have a hierarchical structure as knowledge engineering and management threaten to become a form of just plain information.

2. Speed and responsiveness. This is in a very real sense a necessary companion to the information age. As we build the infrastructure and capabilities that will be part of the information age, increased bandwidth will allow increased speed. The demand for this speed will follow on the heels of the technology push, meaning that people and businesses will wish to pay real money for the speed and responsiveness that such a capability is able to provide. As information finds its way to the right people more quickly, there will be pressure for the executives in business to speed up their operations in order to provide what their customers want in a more responsive manner, and make their decisions more quickly, which will be supported by having the right information available at the right time.
3. Competition. The fact that people and companies will have and utilize the capability to move with increasing speed in the marketplace leads to extremely strong competition. If every business, in effect, sees more powerful competition coming globally, out of necessity this will have a most profound effect on the business itself. All companies that rely on information must be working as hard as they know how to make sure they remain at the leading edge. All these new enterprises, in the aggregate, pose a threat to the established companies in that a new very soon replaces the old one in a world in which market share can be reversed in very short periods of time. And these new companies heat up the competitive environment so that nothing is safe or sacred.
4. New work patterns and environments. We are interested in new work patterns and environments, within individual's migration path of the business enterprise of the twenty-first century. What type of work pattern and environment are we likely to find as we move into that future world and work our way through it? We can see at least three new work patterns emerging: Working highly irregular hours, often at home or at remote locations; working with new application that will bring fame and fortune; A confusion of plenty, that gives new ways of developing software as well as new ways to fail to integrate them.

5. Loyalties and leverage. The world is changing and double-sided loyalties were shattered. Top management, not in the habit of firing themselves, looked around for ways to cut costs as profits were eroding or negative. The answer became a national pastime in which the euphemism was “right-sizing”. After all, the layoffs proved how responsible and effective the executives were. Loyalties were seriously eroding. Trust was dissipating and disappearing. If the workers were ultimately only pawns in the game, then constant movement for the best deal was to be a kind of response.

Mandates or edicts issued by upper management that predetermine the technical approach or schedule, cost, and performance considerations without sufficient project team input or concurrence are frequently seen to cause reengineering failure. More often project schedules, costs, and deliverables are dictated by top management decisions. Software is a difficult business, and especially where one is dealing with legacy systems that may have poorly developed components and poor documentation. While top management does need to make decisions on the allocation of scarce resources, it is tempting for them to also determine specific deliverables and timetables. However, detailed planning of schedules and milestones can only be accurately determined through careful study of the technical parameters of a system, based on an understanding of the system, historical data, and knowledge of the specific skills of the staff. When top management prescribes these details with little data, the results are usually disastrous. (Bergey, 1999, p. 24).

Why Reengineering Fails

Inspired with contemporary management trends, many companies tried to make themselves a significantly better competitor. All of them tried to make a fundamental change in how their business is conducted, and many of them tried to apply reengineering, so they can cope with more challenging market surroundings. However, many of them either failed, either have been in between, or in most cases obvious lack of success were distressing.

The media usually point out the high rate of failure to three factors: the resistance of employees to change, inadequate leadership by senior management, and unrealistic expectations about reengineering results. (Kiely, 1995)

Many lessons have been learned through analysis of these failures. Some very general reasons could be drawn, and one is disrespect of process phases. Process phases are usually involving a considerable length of time, and skipping some phases makes only illusion of speed and never produces rewarding result. Following are some specific reasons why reengineering fails (Kotter, 1995):

- 1) Not Establishing a Great Enough Sense of Urgency. The first step in reacting to revenue drop or declining trends in company is very important, because its success directly depends on motivation of individuals or groups who are crucial wheels of change. Although it sounds easy comparing with further steps in process, most companies fail in this phase. Sometimes executives underestimate how hard it can be to drive people out of their comfort zone, or they lack patience, or they worry that employees will be defensive, or that morale will drop, or they fear to be blamed for creating a crisis. To be successful in this phase, urgency rate must be very high, and it must be established in most of company's management. Some executives created a crisis, by making large accounting loss or going public with terrible results, so the sense of urgency becomes higher. However, although sometimes crisis atmosphere promotes reengineering success, experts believe that crisis create fear and panic which drives out optimism. (Kiely, 1995, p. 15)
- 2) Not Creating a Powerful Enough Guiding Coalition. Major renewal programs often start with just one or two people. In cases of successful transformation efforts, the leadership coalition grows and grows over time. Major change is impossible unless the head of the organization is an active supporter. In the most successful cases, the coalition is always pretty powerful- in terms of titles, information and expertise, reputations and relationships. Sometimes they expect the team to be led by a staff executive from human resources, quality, or strategic planning instead of a key line manager. No matter how capable or dedicated the staff head, groups without strong line leadership never achieve the power that is required. One deep research of 30 companies reengineering process show that first precondition for failure was allowing wrong manager to sponsor the project. (Kiely, 1995, p. 15). But whenever some minimum mass is not achieved early in the effort, nothing much worthwhile happens. Companies that fail in phase two usually underestimate the difficulties of producing change and thus the importance of a

powerful guiding coalition. Sooner or later, the opposition gathers itself together and stops the change.

- 3) **Lacking a Vision.** In successful transformation effort, the guiding coalition must develop a picture of the future that is relatively easy to communicate and appeals to customers, stockholders, and employees. A vision always goes beyond the numbers that are typically found in five-year plans. A vision says something that helps clarify the direction in which an organization needs to move. Without a sensible vision, a transformation effort can easily dissolve into a list of confusing and incompatible projects that can take the organization in the wrong direction or nowhere at all. In failed transformations, you often find plenty of plans and directives and programs, but no vision. Not surprisingly, the employees in such cases are confused or alienated. A rule for sharing a vision: if you can't communicate the vision to someone in five minutes or less, and get a reaction that signifies both understanding and interest, you are not yet done with this phase of the transformation process.
- 4) **Under communicating the Vision by a Factor of Ten.** Having used about .0001% of the yearly intercompany communication, the group is startled that few people seem to understand the new approach. Transformation is impossible unless vast majority of people are willing to help, often to the point of making short-term sacrifices. Employees will not make sacrifices unless they believe that useful change is possible. Without credible communication, and a lot of it, the hearts and minds of the troops are never captured. Executives who communicate well incorporate messages into their hour-by-hour activities. They take ritualistic and tedious quarterly management meetings and turn them into exciting discussions of the transformation.
- 5) **Not Removing Obstacles to the New Vision.** Too often, an employee understands the new vision and wants to help make it happen. But an elephant appears to be blocking the path. In some cases, the elephant is in the person's head, and the challenge is to convince the individual that no external obstacle exists. But in most cases, the blockers are very real. The change effort ground to a halt because the officer in charge of the company's largest division was allowed to undermine most of the new initiatives. Perhaps worst of all are bosses who refuse to change and who make demands that are inconsistent with the overall effort. The other officers did virtually nothing to stop the one blocker. If the blocker is a person, it is

important that he or she be treated fairly and in a way that is consistent with the new vision.

- 6) Not Systematically Planning For and Creating Short-Term Wins. Real transformation takes time, and a renewal effort risks losing momentum if there are no short-term goals to meet and celebrate. Without short-term wins, too many people give up or actively join the ranks of those people who have been resisting change. In a successful transformation, managers actively look for ways to obtain clear performance improvements, establish goals in the yearly planning system, achieve the objectives, and reward the people involved with recognition, promotions, and even money.
- 7) Declaring Victory Too Soon. After a few years of hard work, managers may be tempted to declare victory with the first clear performance improvement. While celebrating a win is fine, declaring the war won can be catastrophic. Instead of declaring victory, leaders of successful efforts use the credibility afforded by short-term wins to tackle even bigger problems. They pay great attention to who is promoted, who is hired, and how people are developed. They include new reengineering projects that are even bigger in scope than the initial ones. They understand that renewal efforts take not months but years.
- 8) Not Anchoring Changes in the Corporation's Culture. Finally, change sticks when it becomes "the way we do things around here," when it seeps into the bloodstream of the corporate body. Two factors are particularly important in institutionalizing change in corporate culture. The first is a conscious attempt to show people how the new approaches, behaviors, and attitudes have helped improve performance. Helping people see the right connections requires communication. Time was spent at every major management meeting to discuss why performance was increasing. The second factor is taking sufficient time to make sure that the next generation of top management really does personify the new approach. One bad succession decision at the top of an organization can undermine a decade of hard work. The champion for change was the retiring executive, and although his successor was not a resistor, he was not a change champion.

There are still more mistakes that people make, but these eight are the big ones. In reality, even successful change efforts are messy and full of surprises. But just as a relatively simple vision is needed to guide people through a major change, so a vision of the change process can reduce the

error rate. And fewer errors can spell the difference between success and failure. (Kotter, 1995)

Conclusion

Reengineering is a new and desirable approach to transforming organizations and improving sustainable economic development requirements. The radical improvement of business process performance through the use of innovative tools and work designs has roots in the quality movement and other approaches to operational betterment of business activities. Although the quality movement has developed the notion of processes and process improvement to a high degree, its orientation is to incremental rather than radical change, and it does not address enablers of change.

Business orientation that combines process improvement and process innovation efforts is unique and uniquely relevant to sustainable development. It is in keeping with cultural leanings toward innovation and incorporates the rigor and measurement orientation found in the quality approaches of many successful firms. But because improvement and innovation are quite different, it is important to know which is pursued in a particular instance.

Reengineering, although difficult to achieve because of the radical nature of the organizational change involved, is a highly tempting approach to business transformation. It can be undertaken at relatively low cost, and the design, if not the implementation, of new processes can be completed in a matter of months. For these reasons, many firms in the developed countries in all industries, are embarking upon major process innovation initiatives.

Reengineering is particularly challenging if the short-term sacrifices include job losses. Such consequences are sometimes not seen as proper way for achieving economic sustainability. Gaining understanding and support is tough when downsizing is a part of the vision. For this reason, successful visions usually include new growth possibilities and the commitment to treat fairly anyone who is laid off. The only constraint is that the actions fit within the broad parameters of the overall vision. The more people involved, the better the outcome. Reengineering is a particular way of using our minds, a way of radical experimentalism, of invention and reinvention, constantly checked by the realities of the bottom line.

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Downsizing

Yurdal Çakal

Introduction

One of the most important topics in management science is growth and shrinkage of organizations. Growth has been associated and measured with production capacity, physical conditions, number of employees, sales and market share which implied more tangible performance indicators. In the middle of twenty century organizations grew with the assumption that bigger was better. However, quality movement and technological change reduced business cycles and made it easier for small companies to enter market. Organizations responded to changes by moving from hierarchical structures to flexible and adaptable companies. Nowadays companies adopt 'smaller is better' rule and focus on their core competencies. Profit margins, stock prices, dividends, return on equity and market-to-book-ratio are financial performance indicators observed by shareholders and managers adopt strategies that will improve these indicators. Especially, increasing stock price of a company has become so important that executives decide to do whatever to convince the market that stock price should rise.

In emergent business environment executives often tend to improve financial health and solve problems of organizations by adopting downsizing strategies. Many studies have been conducted to analyze reasons, strategies and efficacy of downsizing in companies as well as consequences of downsizing on the performance indicators of organizations. There is no common view in terms of benefits and costs of downsizing. Whether this popular management practise improves performance is frequently asked and never satisfactorily answered. Although in short term some indicators may be improving, outcomes on long term performance has not been entirely researched.

U.S. companies began using downsizing in 1980s when direct international competition started to increase. In 1990s downsizing was widely used as a strategy. It is not restricted to certain industry or sector and in difficult economic times and global crisis downsizing occurs more frequently. It occurs in public, non-profit as well as private sectors. Compared to private

sector it is obvious that in public sector employees have less experience in downsizing because there has not been increased competition in public sector. Globalization, rapidly increasing competition, high energy prices leading to higher costs pushes management executives to respond fast in order to sustain and adapt to changes in turbulent marketplace.

Downsizing is usually explained in the way that in capitalism shareholders constantly wants to have higher stock prices and dividends. When these values decline or don't enhance shareholders view management as incapable and changes with more efficient one. To avoid this, management chooses downsizing as a strategy to comply shareholders' ascending appetite (Budros A., 2004). Since employee costs are variable and most easily reduced companies most frequently use layoffs as a strategy.

From the perspective of history literature distinguishes downsizing as early stage and later stage. Early stage includes early 1980s and refers to downsizing practices occurred as a result of economic crisis. On the other hand later stage reflects economic and institutional forces as causes of downsizing and lasts from mid-1980s up to now (Budros A., 2004).

Understanding why organizations downsize is essential since it has become part of organizational life. Although many academics argue that benefits do not overcome negative implications of this phenomenon there is little serious theoretical or empirical work on this issue. Baumol et al. (2005) suggest that downsizing as a phenomenon is more complex and its elements considerably are more varied than it seems generally to have been recognized.

Definition of Downsizing

In academic literature there is no agreed definition of downsizing in terms of its determinants. Although some of definitions involve restructuring as synonym to downsizing, others make distinctions among them. Downsizing accompanies a kind of restructuring and reorganizing. Since organizations reduce number of employees they have to rearrange tasks and responsibilities.

“Downsizing is an organization's conscious use of permanent personnel reductions in an attempt to improve its efficiency and/or effectiveness” (Budros A., 2004). Some authors define downsizing as “accomplished by decreasing the number of employees through layoffs, attrition, redeployment or early retirement or by reducing the number of organizational units or

managerial levels through divestiture, outsourcing, reorganization or de-layering” (Mirabal N. and Deyoung R., 2005). Thus downsizing may occur in terms of closing plants, merging with or acquiring companies, selling non core businesses, and outsourcing.

As Gomez and Balkin put it in their book *Managing Human Resources* (2007) “a company that adopts a downsizing strategy reduces the scale and scope of its business to improve its financial performance”.

All of these definitions have in common terms like employee reduction or layoffs but objectives often vary between cutting costs, improving financial performance indicators, restructuring or de-layering. Countless researches are made in order determine exact reasons and consequences as well as effects of this phenomenon and give common definition of downsizing.

Closely Related Terms

Since downsizing involves diverse effects to organization and society it is confused with other terms that lead to similar results. As Koçel (2004) in his book states rebalancing, redirecting, reorganization, compressing, rebuilding, reshaping, revitalizing, reengineering, rightsizing, contracting, redesigning, renewing, slimming, reduction-in-force, resizing are often used in similar context with downsizing.

Even if all of these practices proceed in downsizing of the organization there are huge differences among aim, motives and arguments each of them.

Rightsizing and reengineering are most frequently terms associated with downsizing. “Rightsizing means reorganizing a company’s employees to improve their efficiency. An organization needs to rightsize when it becomes bloated with too many management layers or bureaucratic work processes that add no value to its product or service” (Gomez et al., 2007). While some researchers treat rightsizing as special form of downsizing, other contrasts them.

Downsizing Process

Downsizing often does not achieve objectives which are creating efficient, leaner and more productive workforce by involuntary separation. Three dominant theories have been used to explain why downsizing strategies have been pursued among companies (Mentzer, 1996);

1) **Rational approach** assumes that executives are rational people and they decide to downsize in order to cut the costs and be competitive. Although it is a tough process marketplace requires higher profits and secures future for the firm. This approach emphasizes importance on rationality and assumes that executives are rational and reasons for executing downsizing is explained by economic efficiency.

2) **The asymmetrical or hysteretic approach** argues cases where executives can not see that organizations are in dangerous situations and respond appropriately. It refers to a situation when downsizing is delayed. A reason for this phenomenon can be that internal processes have become complex or executives perceptual process flawed and they are not conscious of how serious is the problem. Therefore management is not able to respond effectively and when downsizing occurs it lacks many important aspects. Universities facing budget cut that respond with hiring administrative staff can be given as an example to this approach.

3) **The institutional approach** refers to situation when organizations copy others in high uncertainty. In fact there is no need to downsize but since others are doing and it is popular some companies decide to downsize. In this case organization copies companies with visions.

It is not clear why some companies downsize while others do not. Researchers as Denis D. and Shome B. argue that industry operating performance, aiming to focus on operations and need to improve financial indicators are most significant factors while deciding on downsizing. Moreover external control market has important role in the decision to downsize. Franz et al. (1998), argue that financial condition of the organization prior to the downsizing has significant effect on whether downsizing is beneficial to the organization.

The causes of downsizing expounded in literature are numerous and complex:

- Cutting down costs,
- Increasing efficiency and profitability,
- Reacting to competitors rapidly,
- Empowerment,
- Increasing synergy in organization,
- Sustaining competitive advantage,
- Sharpening focus on core competencies,
- Focusing on customer needs rather than on internal processes.

Also downsizing can occur as a response to company acquisitions, merges, losing profits related to incapability of capturing technological and industrial changes and 'social pressures attributed to the philosophy that smaller is better' (Mirabal N. and Deyoung R., 2005). Some authors differentiate between "downsizing by need" and "downsizing by preference" (Rabin J., 1999), first one as classic layoffs because of rational reasons and second term relating to the organizations of good financial situations and still deciding to downsize.

However, organizations can be harming themselves when downsize inappropriate or repeat it many times. Managers should be more sceptical about downsizing. If downsizing is necessary for a company because of its unique circumstances management should take care about planning and thoughtfully executing it (Mentzer, 1996).

Many argue that downsizing to be successful should be well coordinated and communication is essential in eliminating negative impacts of downsizing. Thus having some warnings or early messages to employees will be better than sudden layoffs. Effective and open communication will help to overcome misunderstanding and the survivor guilt of the employees who were not laid off.

Critics of downsizing argue that management before deciding executing layoffs should carefully review all other possibilities in the organization that can cut costs and increase profitability. When a company decides to downsize its operation, its first task is to research what other measures can be taken as alternatives to layoffs. Gomez et al. (2007) points out early retirement as one of the most popular method. Thus, employees who fulfilled conditions of early retirement can help cutting costs. Although early retirement is described as an alternative to layoff emphasize is still on reducing workforce. Another possible alternative is given by example of a company which was faced with the option of downsizing during the Great Depression. Instead of layoffs reductions in salary and wages was adapted as a practice until revenues returned to normal (Rabin J., 1999).

Most European countries law foresees or recommends consulting employees' in decision of downsizing. If it is emergent and company does not respect law then penalties are predicted. In this way probability of discrimination is reduced (Cabrales A. and Calvo A. A., 2004). Ratchet effect is related to this discrimination and shows that "degree in which structure increases during organizational growth it never decreases (or decreases relatively little) during

organizational shrinkage” (Mentzer, 1996). In fact never number of administrative workers is reduced in the same percentage as are blue collars in industry downsizings. Some strategic analysts emphasizes importance on including downsize to strategic management plan of a company regardless of the fact that they may not decide to downsize.

Stages of Downsizing

In a global and changing business environment often is required to decide on important topics and act in a limited time interval. Since downsizing is very complex and unpredictable process, implications of downsizing may lead to negative consequences. According to Cummings and Worley (2001) successful downsizing process has five application stages:

- 1) Clarification of the organizational strategies: goals and objectives
- 2) Assessment stage: relevant choices and key decisions
- 3) Implementation stage: reduction in workforce
- 4) Survivor syndrome: behavioural implications of remaining workforce
- 5) Organizational renewal and growth: new or modified strategies

First stage emphasizes importance on executives to constantly focus on and support downsizing process. If wrong people, levels or functions are removed during downsizing the company is negatively effected (Manson B., 2000). Second stage includes most important decision which of three primary downsizing methods will be utilized. Third stage involves implementation of selected method. Those employees that stay in company after downsizing face survivor syndrome which refers to a collection of symptoms as fear, anger, guilt, mistrust. In survivor syndrome stage employees are asked to take more responsibility or additional jobs without or little wage increase. Final stage involves renewal of organization and in order to be successful employees should be acknowledged with new or modified strategies.

All of these stages are important and require time, effort and planning for implementing properly. Three primary methods mentioned above and described by Cummings and Worley (2001) are workforce reduction, organization redesign and systemic redesign. Most common used method workforce reduction involves layoffs, early retirement, transfers and buyout packages. Second method eliminates functions, product or services in organizations and redesigns tasks. Finally systematic redesign compels to

continuous improvement in processes and presents downsize as a way of life (Mirabal N. & Deyoung R., 2005).

Institutionalization and Effects

Downsizing in terms of layoffs has negative consequences to society; it affects not only workers but their family and community as well. It is not surprising that many researches have focused their studies on examining negative impacts of downsizing to corporations and employees. Moreover, it is not even clear that downsizing is successful in its objectives. De Meuse's (1999) research focused on comparing companies' financial performance over a period of five years. They examined 17 *Fortune* 100 companies that made layoff announcements with 35 *Fortune* 100 companies that did not make layoff announcements. The most frequently used financial indicators as profit margin, return on assets, return on equity; asset efficiency and market-to-book ratio were measured respectively. Additionally, variable of risk as measure of "sensitivity of changes in the market return of a stock to changes in the overall market's returns" were studied for related firms. As a result, financial improvement had not occurred in these organizations. Firms that used downsizing as a strategy to financial improvement have faced deterioration in financial health. It is questionable how good is executing downsize in terms of involuntary separation in order to adjust company's risk and return level.

Contrary to the popular perception that stock market immediately rewards company that downsize Franz et al. (1998) research results show that there is no automatic stock price increase for companies that downsize whereas Prezas et al. (2007) think that possible explanation for the higher announcement period return is that a new manager makes more drastic changes when compared to an entrenched manager who may have potentially created the problems at the firm in the first place. Additionally there are studies that argue negative effects of downsizing to reputation of corporation's social responsibility.

What is very important and not analyzed broadly in terms of downsizing is knowledge of employees who were involuntarily separated. When organizations downsize they cut costs but loss of valuable human capital may exceed the benefits of layoffs. Some knowledge is embedded in company's routines but tacit knowledge critical for competitive advantage is held by individuals (Nixon et al, 2004). Organizations lose their competitive advantage when layoff employees especially professionals and managers. In

most cases voluntary turnover rate increases after a downsizing program since survivors are not loyal to organization anymore and company loses more employees than it had planned to layoff. One research shows that after downsizing 63% of employees are less loyal to their organizations and just 48% somewhat trust their employer (Alcorn S. and Stein H., 1996). Job insecurity negatively effects job satisfaction and this is related to organization performance. But improving performance indicators after downsizing may be tough job for managers. In order to avoid unexpected results and accomplish downsizing successfully company should have a history of strong commitment from employees.

In a recent paper, Farber (2008) presents evidence of research concerning with the analysis how long-term employment relationships in the United States were disappearing with the increased competition and the wave of corporate downsizing in the 1990s. A key conclusion is that the structure of employment in private sector has moved away from long-term relationship in the United States.

Study on the differences in downsizing behaviour depending on the ownership type of companies reveals peculiar outcomes: stock corporations and state-owned firms engaged in privatization process are more likely to downsize than privately held domestic companies (Lorente J.D. & Gonzales S.I., 2007).

Daniela Truty (2002) in her qualitative study exploring workers who lost their jobs in the downsized company argues how downsizing has become socially acceptable although it is volatile. Workers believed that decision to downsize occurred for several reasons: decline in stock prices, company could not pay wages because it was not selling enough, expenses outcome incomes or company should be proactive. Participants of study think that external institutions as globalization, competition, technology, changing demographics, the law, higher education, capitalism, stock markets, emphasis on financial indicators, media contributes to acceptance of downsizing through workforce reduction.

In fact, when we look at history of some well known companies we can see that they have downsized many times. Downsizing has become a usual practise for these organizations. Former IBM CEO Tom Watson points out this practise as “we never reorganize except for a good business reason- and if we haven’t reorganized in a while, that’s a good business reason” (Ulrich D. and Smallwood N., 2007).

Downsizing practices have become so common in business environment that nobody questions how necessary it is. To enlighten this unordinary perspective how people accept downsizing without resisting have been occupying researchers for a long time. Thus, many authors term 'institutionalization' attach to downsizing. It is argued that downsizing practices have got legitimate business practice status. Downsizing is volatile for employees involved in the process and corporate downsizing has become institutionalized myth with support of external and internal cultural institutions which were socially built (Truty D., 2002).

Some authors use term 'mimicry' to describe institutionalization of downsizing. This situation is defined in a way that companies "feel pressure to mimetically follow the trend of layoffs if competing firms have also implemented the same cost-cutting measures" (Budros A., 2004). In this case main arguments of opponents are made on a topic whether this is good reason to execute downsizing.

Another definition is that "institutionalization was the process whereby ideas, practices, behaviours, attitudes, and other patterns at work in the social context were automatically adopted without benefit of critique" (Truty D., 2002). It is well known when some practice takes legitimacy in environment no one thinks about the appropriateness of it. The study conducted on perception of organizational downsizing by individuals with layoff experience revealed interesting results (McKinley W. & Sronce R., 2006). Prediction that 'layoff experienced individuals see downsizing as more effective than those without such experience' was partially confirmed. In this case we should not be surprised to institutionalization of downsizing too much.

Conclusion

When deciding to downsize managers assume that company will reduce costs, increase efficiency and profitability as well as become more competitive within industry and financial performance indicators will improve in short time. Executing downsize is often seen as brave commitment of managers who decided to save a company. However, empirical studies conducted on consequences do not always support these assumptions. Instead of clear results we usually get mixed outcomes of downsizing.

Although benefits of decisive downsizing seem immediate, distinct and easy to compute destructive hazards and outcomes must be viewed as pending. Undoubtedly investors in stock markets are less concerned with a company's long-term performance since they can unload shares of bad going businesses more easily. On the other hand executives must be concerned with long term performance of company before deciding about any strategy.

With downsizing strategies organizations may lose skilled and reliable employees who add value to products and services as well as tacit knowledge which is important for sustainable development and competitiveness. After downsizing commitment and loyalty of 'survivors' will be questionable which may lead to decrease of productivity in organization.

Managers should not under estimate these negative outcomes of downsizing. Before embracing downsizing as assisting strategy, company should be analyzed carefully from various perspectives in order to ascertain whether there are better ways to make an organization competitive in the marketplace. If possible eliminating contractors or strategies as attrition, early retirement offers, transfers and voluntary buy-outs should be thoroughly searched before adopting downsizing.

Every organization has unique circumstances and applying similiar strategy in order to save organization may result in serious damages. Executives should view causes and effects of downsizing with greater scepticism. It is obvious that downsizing practice will appear in the visible future. Consequently every day employees are less likely than their parents to have a career characterized by a life-time job with a single employer.

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Outsourcing

Ramo Palalić

Introduction

Globalization is rapidly linking the world's major economies. Today's standard of excellence is not just best in class, in fact, it is best in world. In this global economy every company must compete against customer choices coming from everywhere and anywhere. Barriers to the marketplace are dropping quickly, with new competitors just a mouse-click away from any customer. Core competencies are the crown jewels of a company and, therefore, should be carefully nurtured and developed. Companies can determine their future business directions based on the strengths of competencies. However, because generalized terms such as resource, asset, capability, and competence are not clearly explained in connection with competence theory, these posing difficulties in understanding many contemporary management concepts. (Hafeez, YanBing Zhang and Malak, 2002, 28-35) These are constructed as a voluntary collaboration to promote sustainable development based on the efficient allocation of complementary resources across business, government and civil society (Tennyson and Wilde, 2000), in other words where the parties pool their competencies and share the risks. Firms increasingly use outside vendors to provide their training and development needs. However, the strategic importance of many training programs often introduces unique challenges for organizations outsourcing this function. (Gainey and Klaas, 2003, 207-229).

Organizations operate in all areas through people and it is their contribution which determines success and it is their skills and knowledge which need to be cultivated and then leveraged to create competitive advantage. Sustainability of this competitive advantage comes from the development of tightly coordinated and complementary activities and directed towards producing a strategy of differentiation and making a unique offering to customers. A consistency in strategic direction is essential and this will necessitate the exercise of choice to develop a unique strategy. The development of sustainable competitive advantage is a vital management

function and an important requirement is the nurturing of a knowledge creating environment to enable the organization to exploit and develop resources better than rivals and create sufficient knowledge to address the industry's future success factors (Sharkie, 2003, 20-31). In this context, outsourcing in IT area, especially for the purposes of training and development of the organization is a vital factor for reaching sustainable development level.

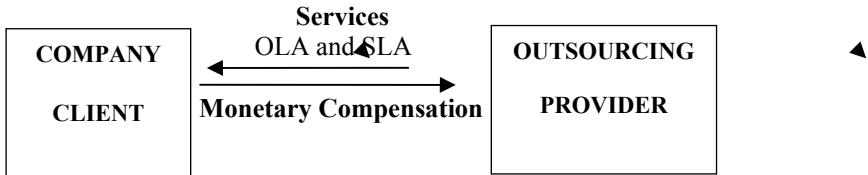
Definitions of Outsourcing

There can many definitions of outsourcing be derived although its essence is the same, so we would provide a few definitions that best describes in brief almost all parts of outsourcing process. Outsourcing at its simplest is when a company or individual delegate some of its specific tasks to another individual who is not their direct employee, or another company. The individual or the company receives monetary compensation in exchange for the services rendered. In other words, outsourcing takes place when a company has recruited another company or an individual to perform agreed business activities for them and that company or individual receive financial benefits (in most cases they get paid). This way, we can see that outsourcing does not necessarily mean only situations where large corporations are involved. In fact, it can also apply to small companies and entrepreneurs who get some of their work done by people who are not their employees.

Outsourcing is finding areas and responsibilities within an organization that are *not core competencies* and finding someone else to do the work for the company. It involves transferring or sharing management control and/or decision-making of a business function to an outside supplier, which involves a degree of two-way information exchange, coordination and trust between the outsourcer and its client. So, outsourcing is contracting with another company or person to do a particular function. Usually a function being outsourced is considered as *non-core* to the company's business.

Graphically these definitions can be summarized as

Figure 1:



OLA – Organization Level Agreement

SLA – Service Level Agreement

Figure 1 - Definitions of outsourcing

Types of Outsourcing

The most common types of outsourcing being implemented are the following:

BPO – business process outsourcing

ITO – information technology outsourcing

In short, *BPO* refers to the process of hiring another company to handle business activities for a company. A formal definition of BPO is set out as “the delegation of one or more IT-intensive business processes to an external provider who, in turn, administrates and manages the selected processes based upon defined and measurable performance metrics (*Havley J.K, B.M.Melby, 2007, pg.21*).

BPO encompasses call center outsourcing, human resources outsourcing (HRO), finance and accounting outsourcing, and claims processing outsourcing. When BPO is concerned we can say that the BPO has its own sub-business processes such as *KPO* – *knowledge process outsourcing* and *BTO* – *business transformation outsourcing*.

KPO includes those activities that require greater skill, knowledge, education and expertise to handle. The current definition of KPO encompasses R&D, product development and legal e-discovery, as well as a number of other business functions.

Similarly, *BTO* refers to the idea of having service providers contribute to the effort of transforming a business into a leaner, more dynamic, agile and flexible operation. *TO* focuses on IT-related activities, such as application management and application development, data center operations, or testing and quality assurance. As a remark, we must bear in our mind that any kind of outsourcing would not be successful without IT technology. Rather it is an integrated part of every BPO.

Also, the outsourcing could be distinguished according to the region or area where outsourcing is being performed as On-shore/Near-shore and offshore outsourcing.

On-shore or near-shore outsourcing is outsourcing within nearby region or the same country.

Offshore outsourcing is outsourcing beyond a country borders.

Traditionally, organizations have a home base of operations-a region or country, where they began and where their first customers are located.

In going *offshore*, the company has the opportunity to change its business in two primary ways: its net costs and its net capabilities. *Net costs* refer to all of the aspects of its costs that might be impacted by the change, such as labor, support, technology, communications, infrastructure, legal, insurance, and taxes. The resulting cost differential can be positive (it can produce a lower net cost for the organization) or negative (it can produce a higher net cost). At the same time, *offshoring* will also affect the organization's net capabilities. *Capability* means all of the operating characteristics of the business, including the volume of work that can be processed, its quality, speed, and flexibility. It is known that among the cheapest labor in the world are labors in India and China so today most business are offshored to these countries.

To note: since the outsourcing is in fact BPO, and all main functions are actually BPO functions, we will use it as outsourcing term in further discussion. So it is important to extent this discussion to BPO categories.

BPO Categories

Business processes that have come under close examination as potential candidates for outsourcing typically fall within one of seven categories:

1. Finance and accounting
2. Investment and asset management
3. Human resources
4. Procurement
5. Logistics
6. Real estate management
7. Miscellaneous (energy services, customer service, mailroom, food processing), [Halvey K. John, Melby M. Barbara, 2007, pg.134,]

These categories have been established to facilitate the discussion of the general types of business processes that are the subject of consideration for outsourcing. Because in many cases a business process touches different areas within an organization, customers and vendors may categorize certain business processes under different headings depending on the organization's internal structure. For example, in some companies, payroll is considered a human resource function, while in others it is considered a finance function.

As the BPO market evolves, customers and vendors will undoubtedly identify more business processes than can and will be outsourced. The potential reach of BPO is evidenced by the scope of what is even now being considered for outsourcing. Business processes targeted for outsourcing are expanding beyond the traditional corporate support functions into the supply chain.

Reasons for Outsourcing?

Over 90% of all companies around the world outsource certain business activities, whether it is HR benefits administration, payroll, technical support or many other services. Each of these areas is specialized and resource intensive. Working with a knowledgeable vendor ensures that the tasks will be done well, and most importantly allows your organization to stay focused on its *core business*.

For the past five years, vendors have been marketing BPO as an alternative to the typical IT outsourcing deal, encouraging customers to identify noncore processes that are inefficient, too costly, or difficult to manage. The entire

process (except, in most cases, a high-level management position or positions) is then turned over to the vendor, who, in turn, typically agrees to productivity, customer satisfaction, and cost savings commitments.

As the IT outsourcing marketplace becomes more standardized, BPO customers are looking for innovative ways to increase the efficiency and quality of an entire business process through value-added services, customer satisfaction, and, ideally, a direct, quantifiable impact on cost. Some of the *key business drivers* for customers considering BPO include:

- Transferring the entire function (not just the IT component) to a qualified supplier
- Enhancing/improving methodologies
- Benefiting from industry knowledge or experience
- Streamlining or standardizing processes across the organization
- Sharing resources or technologies
- Committing less up-front investment to new methodologies or technologies
- Obtaining flexibility with respect to the roll-out of methodologies or technologies
- Increasing productivity
- Quantifying savings or benefits
- Tracking customer satisfaction
- Enhancing shareholder value

Obviously, objectives for outsourcing one or more business processes will vary on a deal-to-deal basis. The objectives are typically shaped by management's overarching goal in outsourcing (e.g., transition to new methodology or technology, reduction in costs or expenses).

In addition, the Table 1 shows other benefits of outsourcing which best describe why a company tends to outsource its *non-core business activities*.

Table1: It indicates what activities are reduced when a company is outsourcing its business activities

<i>Outsourcing</i>	
Client	Service Provider
No need for a new infrastructure	Existing infrastructure
No extra staff needed	Existing staff
Perceived needs	After a client describes their specific needs, a group of people, whose job it is to do those things, does them
No new equipment needed	Already possesses necessary equipment
Does not hire new people	Hires staff
Provides no support or training	Trains and supports staff
No need to fire people	Fire people in case of not working out
No need for learning for outsourced activities	Track the learning curve
Better service quality	The client is guaranteed a certain quality level of service
No effort needed for extra project analysis and investment	They see better results, in less time, with very little ongoing investment of time and effort

The following figure (Figure 2) summarizes already introduced reasons for outsourcing business competencies.

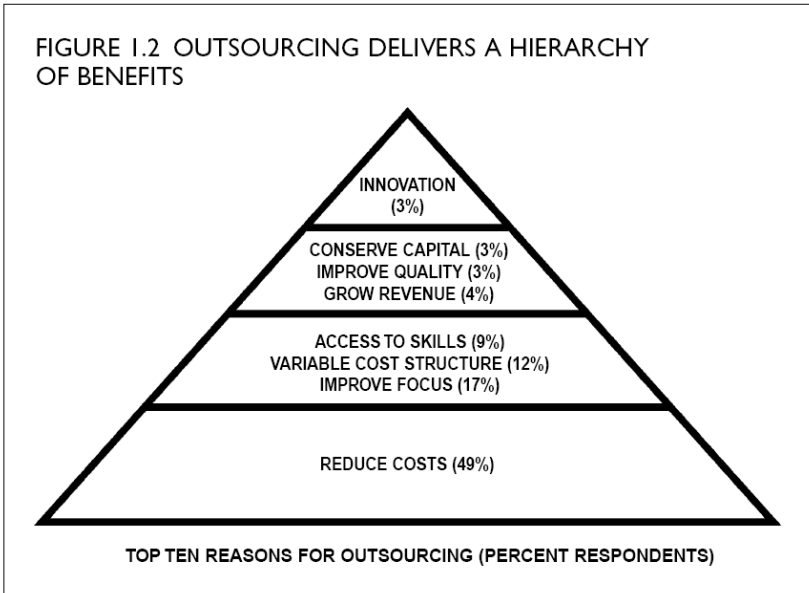


Figure 2: Source [Corbett F. Michael, 2004, pg 31]

Analysis, Preparation and Stages of Outsourcing

Prior to outsource, a company needs to define its internal SWOT Analysis. It should determine points where sustainable advantage lies and could those weaknesses be eliminated if company find outsourcing vendor in order to follow and continue its competitiveness.

This should be made at Business process and IT level.

If the company perceives the following, it should go for outsourcing.

Business concerns:

- Perceived low availability of services
- Perceived a low level of service quality (accessibility, turn-around time etc.)
- No clear service reporting and service management
- Roles & Responsibilities not clear.
- Processes unclear, too slow, too many hand-offs
- Slow and error-prone service introduction
- Unsatisfactory support of remote sites & subsidiaries
- No service culture

- Cost allocation & charges unclear and cannot be influenced by business decisions, etc.

IT concerns:

- Unreasonable service level expectations from business
- No cost & resource awareness
- Large number of non-standard work requests
- Overlarge project portfolio, paired with spaghetti development infrastructure
- High-level of business applications
- Inefficient-underutilized server platform,
- Aging central technology platforms and complex networks
- Large and diverse skill pool required to support infrastructure

Similarly, a company should take into account its other internal constraints prior to outsource, namely:

- *Availability of Seed Money* – a company needs to reduce cost, this requires efficiency gains, and efficiency gains require investment
- *Structural Inflexibility* – company’s current business and application architecture may not allow for simple and low cost ICT changes
- *Time to Benefit* – Most “quick-wins” have already been explored over recent years. Major initiatives have pay-backs seldom shorter than 24 – 36 months
- *Business vs. IT Projects* – Most projects are invisible to the normal business users and do not directly contribute to business revenue generation
- *Capacity and Know-How* – Are there sufficient internal resources available to drive the change in a timely fashion? Will heavy external resource usage kill the business case?
- *Change Capacity* – Can the internal organization absorb this change now (ex. Overall moral, unions, etc.)
- *Sustainability* – Can initiatives be maintained in light of business development?

Outsourcing Facts: Statistics Data and Study Case

Statistics Facts

Since globalization took place, outsourcing has increased enormously. It is a fact that every year outsourcing getting its part in every business. Another factor that fosters its growth is rapid development of IT technologies. Outsourcing statistics show that the largest percentage of jobs being outsourced is in Information Technology, by around 28%. The next largest field is human resources taking 15% of the outsourcing market, followed closely by sales and marketing outsourcing with 14% and financial services outsourcing at 11%. The remaining 32% is made up of other different processes such as administrative outsourcing. [http://www.manpower.com, 12 December 2008]

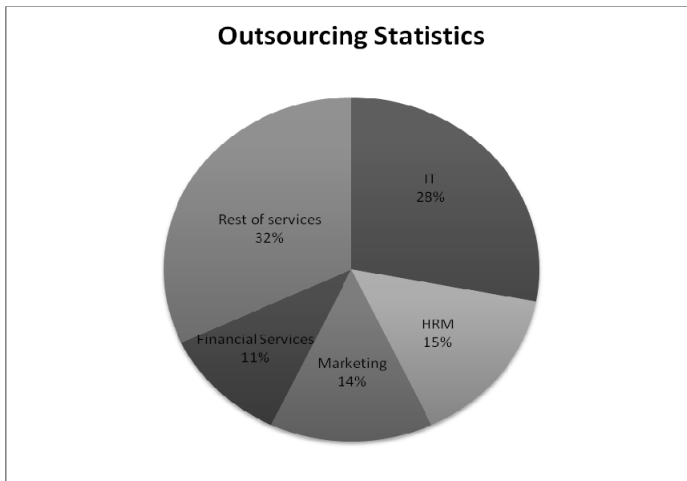


Figure 3 - Outsourcing statistics on IT, HRM, financial services, marketing and the rest of services

Most of the outsourcing is done by multinational companies and the most popular destinations are India, China and the Philippines. Of course these figures slightly differ depending on the study and the point of view, but this division gives an idea of the outsourcing market. [http://www.manpower.com, 12 December 2008]

Forrester Research estimates that 3.3 million U.S. jobs and \$136 billion in wages could be moved to such countries as India, China, and Russia by 2015. [http://www.manpower.com, 12 December 2008]

Nasscom, a lobby form for Indian software and service companies, has reported that India could earn \$60 billion a year by 2010 from information technology and outsourcing. Most of the new business is expected to be outsourced by insurance, retail, banking and travel companies. [http://www.manpower.com, 12 December 2008]

The McKinsey Global Institute estimates that the volume of offshore outsourcing will increase by 30 to 40 percent a year for the next 5 years. [http://www.manpower.com, 12 December 2008]. According to an article in Business Week magazine, the most commonly outsourced functions in terms of global spending include the following (listed in order of global spending):

1. Logistics and procurement—\$179 billion
2. Manufacturing—\$170 billion
3. InfoTech—\$90 billion
4. Customer care—\$41 billion
5. Engineering—\$27 billion
6. Finance & accounting—\$14 billion
7. Human resources—\$13 billion
8. Analytics—\$14 billion

[http://hosteddocs.toolbox.com/ceo-succession-management-consultants.pdf, 12 December 2008]

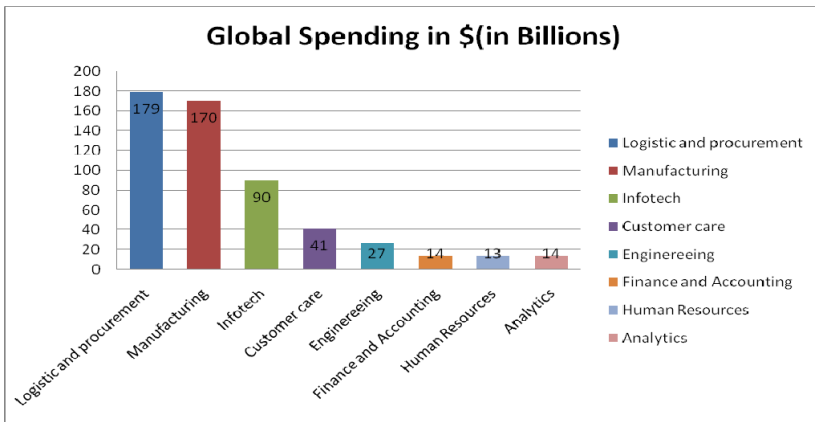


Figure 4 – Commonly Outsourced Functions and Processes

Conclusion

No organization can stay competitive in today's rapidly changing global economy by relying solely on its own resources. Outsourcing is a necessary response to today's rapidly-competitive environment. In this environment, no organization can afford the level investment required to be best-in-world across its entire operation, yet none can afford to be anything less. Through outsourcing, organizations solve this dilemma by focusing their internal resources on the activities that provide them a unique competitive advantage.

At the same time, each outsourcing transaction adds to the organization's overall performance and competitiveness. It saves money, redirects resources to more valuable activities, achieves a more variable cost structure, gains access to much needed skills, reduces the internal competition for capital, becomes faster and more responsive, and even increases its level of innovation. Managers and executives themselves are able to better focus their energies externally, on customers, as opposed to internally, on day-to-day operations.

Therefore, we can conclude that if a company perceives such that functions are non-core and/or not a competitive niche, significant cost advantages from outsourcing, limited/no opportunity for learning transfer, skill competencies not available in organization, cost of monitoring/administering outsourcing partner is low, comparable or better service levels from outsourcing, the company should go for outsourcing. On the other hand if the company sees issues that are: critical to the business, no cost advantages from outsourcing, potential competitive advantages through knowledge transfer, skill capabilities readily available in organization, high cost of monitoring/administering outsourcing partner and service levels better within organization, the company should insure its business processes.

Finally, concerning Bosnian business environment, we can fairly argue that this region lacks of many kinds of outsourcing (although there are some companies involved in outsourcing activities) and there should be a leveraging instrument or factor that could foster this new era business activity. Yet, outsourcing business activities would definitely boost the economy of Bosnia towards its prosperity and its faster integration into European Union. Outsourcing would be one of many steps to implement the country mission as a future EU member.

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Benchmarking

Selma Mujanović

Introduction

It is well known that companies, no matter in what business they are involved, make a lot of mistakes and have a lot of problems. These interdependent problems, that various companies face, Russell Ackoff in his book *Creating Corporate Future* called simply "a mass" (Ackoff, 1981). Many times it can be noticed that top level managers work hard in order to improve the condition in their companies. In this respect companies and their managers usually tend to look at the companies whose condition is better than their own and they try to copy what the other company does well in order to improve its own productivity. To be able to do this some of the economists argue companies need to be prepared to destroy their past and be ready to abandon their old practices in order to secure better future (Schumpeter, 1984).

Almost all companies have their lifetime and at some point they might be at the peak of their success. In order for a company to be able to stay longer at the peak it needs to accustom to changes that they come along when doing business. Rigidity in business, values, belief systems, strategies, operating mechanism and procedures may be key reasons for a company to lose its place in the market. In this respect in order to improve its condition company needs to adopt changes and needs to be very serious about these changes. Best way to do this is to do benchmarking. This was confirmed by a survey on benchmarking conducted by Global Benchmarking Network, that consists of 22 countries, and that was conducted in 2008. In this survey over 450 organizations from over 40 countries participated. Survey showed that in 77 % of organizations Mission, Vision statements and customer surveys were mostly used as improvement tool, in 72% of organizations SWOT analysis was used, in 68% of organizations Informal benchmarking was used where as in 49% of organizations Performance benchmarking was used and in 39% of organizations best practice benchmarking was used. In addition to this survey also showed that 60% of organizations that participated in a survey and do

not use benchmarking are likely to start using it in the next three years. (www.bpri.com who undertook the research on behalf of the GBN).

Changes are most effectively acquired by applying the principle of benchmarking, that became practice of almost all serious companies in the world use nowadays. Benchmarking can be considered as a point of reference upon which company can measure its own performance. Absence of benchmarking in the company's lifetime can be the reason for its short life time.

In this respect this chapter will deeply explore possible types of benchmarking, methodology of applying benchmarking, and it will present benchmarking in practice so that readers practically see how benchmarking works in practice and this part will be followed by the conclusion. Main aim of this chapter is to introduce the reader with the meaning, types and importance of benchmarking. It is of crucial importance that broader audience, which has great potential to be involved in various businesses, do not perceive benchmarking as something that is done out of humiliation, but quite on contrary it should be perceived as something that is needed and even desired to do if company wants to be one of the best in a certain branch.

Definition

Many scholars and researchers defined benchmarking in different ways. For the purpose of this chapter only few of them will be mentioned for the purpose of this sector. Benchmarking for the John Reh is a process of determining who is very best, who sets a standard, and what that particular standard is (Reh, 2009). ``Benchmarking is the process of comparing the cost, cycle time, productivity, or quality of a specific process or method to another that is widely considered to be an industry standard or best practice. Essentially, benchmarking provides a snapshot of the performance of your business and helps you understand where you are in relation to a particular standard.``(www.nuesoft.com/media/whitepapers/medicalpractice_benchmarking.html).

Robert Camp has few definitions of benchmarking of which only two will be mentioned here. First definition is that benchmarking is ``a positive, proactive process by which a company examines how another company performs a specific function in order to improve how it performs the same or similar function. Operational process must be comparative or analogous if the highest degree of knowledge transfer between benchmarking partners is to be

achieved.'' Second definition is `` Benchmarking is the search for industry's best practices that lead to superior performance. (Robert Camp, 1989).

Another definition is ``benchmarking is continuous process of measuring products, services and practices against the toughest competitors or those companies recognized as industry leaders. ``Improving by learning from others – i.e. – benchmarking is simply about making comparisons with other organizations, and then learning the lessons that those comparisons throw up. (Jones, 2004).

One other definition that happens to be longer, explains benchmarking in quite a simple terms. According to this definition benchmarking is ``... the art of finding out-in a completely straightforward and open way-how others go about organizing and implementing the same things you do or you plan to do. The idea is not simply to compare your efficiency with others but rather to find out what exact process, procedures or technological applications produced better results and when you find something better, to use or copy it- or even improve upon it still further.''(Blake Harris, 1995).

From the above stated definitions it is possible to notice some similarities between them. Authors of most of stated definitions agree that benchmarking is continuous and systematic process of research, learning and understanding of someone's own company as well as competitor companies and their best practices. The aim of benchmarking is to be better than the competitors by improving business performance, by gaining competitive advantage and by increasing satisfaction of customers. Benchmarking can be made in any kind of business.

Even though various definitions concentrate on different aspects of benchmarking it should be kept in mind that benchmarking can be applied to both private and public sector. Since philosophy of benchmarking is quite simple thus, benchmarking can be applicable to state, federal or local government as well as in private sector.

Benchmarking is used as an instrument in the European Union and its governance. In the European arena benchmarking is used as an `` instrument to promote change and continuous improvement of Europe's competitive performance'' (Caroline de la Porte, Phillippe Pochet, Graham Room, 2001)

History

Methodology today known as benchmarking has started to be in use since Middle Ages. It was first used by cobblers to measure someones feet in order to make shoes. Foot would be placed on a "bench" and mark to make the shape for the shoes. (www.wikipedia.org/wiki/benchmarking).

In the modern age benchmarking was firstly used by Japanese in 1945, IBM used it since 1960s and Xerox Corporation started to use it towards the end of 1970 (Renko N., Delic S., Skrtic M. 1999, p.7-8). Nonetheless, benchmarking, as a term that is widely used in the today's businesses is related to Robert Camp, who in 1989 published a book called `` *Benchmarking: The search for Industry Best Practices That lead to Superior Performance.* `` Before 1970s and Xerox approach to benchmarking, there was a practice of benchmarking that primarily relied on copying the way certain products were made and trying to make the same, thus it was reverse engineering.

The approach taken by the Xerox company was different in many respects. Xerox focused on the processes rather than on the finished products. Xerox realized first that many different processes are not unique to only one industry thus, this led them to conclusion that many processes can be benchmarked from the other different fields of industry. What is more nowadays companies that use benchmarking believe that benchmarking outside of its own industry brings greater improvement and efficiency than benchmarking among competitors from the same industry. Processes and practices developed in the other industries offer fresh insights to the business practices of the other industry thus it results in the greater improvement.

Xerox in the 1980 relied heavily on the cooperation among various benchmarking partners from different industries, that were willing to share information in hope that it, too, would likewise gain important insights to improve its own processes. (Benchmarking Best Practices, p.2). Few other companies in the early 1980s started to follow Xerox's benchmarking practices.

Notwithstanding the fact that few other companies started to follow Xerox's benchmarking practices, it is hard to believe that benchmarking would become as popular as it is if it was not for two major developments of which both developments took place in the United States of America. First

development is related to the United States Congress and its adoption of the Malcolm Baldrige National Quality Improvement Act in 1987, which established an annual Quality Award. The criteria for the Award was documentation of superior standing through external comparison where Award candidates were required to demonstrate that their quality practices and results compared with other "world-class" or "best in class" organizations. (Benchmarking Best Practices, p.2).

Second development was related to the publication of the book by Robert Camp, leading person in the Xerox's benchmarking team, where he explained Xerox's approach to benchmarking and Xerox's experiences with benchmarking. In the same year, 1989, Xerox received the Quality Award for that year. Thus, interest in Xerox's benchmarking practices increased and was widespread. Since 1989, according to American Society for Training and Development (p.1), 60 to 70 percent of the United States' biggest companies were engaged in benchmarking.

Types of Benchmarking

There can be many different types of benchmarking depending on the criteria that is used for differentiating types of benchmarking. Thus, in the following section the various types of benchmarking are going to be listed. (www.en.wikipedia.org/wiki/benchmarking)

- **Process benchmarking** - This type of benchmarking involves one company that opts for benchmarking the company that it finds most successful in the practice it wants to improve.
- **Financial benchmarking** - Comparing the financial results of one company to the result of the other company so that it results in increase of competitiveness as well as productivity.
- **Internal Benchmarking**- This type of benchmarking involves the comparison of the certain departments in the same company. There can be some departments in the companies that are more efficient than the others.
- **Performance benchmarking** - Comparison of the products of one firm to the products of other competitor firm.
- **Product benchmarking** - This type of benchmarking involves improvement of the product of a certain company. This kind of benchmarking may sometimes include reverse engineering.

- **Strategic benchmarking** - This type of benchmarking is mostly conducted by looking at how companies from other industries compete.
- **Functional benchmarking** - This type of benchmarking focuses on one single factor in order to improve this particular factor in a certain company. Since there are many different departments in big companies it is hard to compare certain departments of a same company to each other. It is more efficient to compare lets say financial department of General Motors to the financial department of NOKIA.

Having considered the types of benchmarking in the above section the next section will deal with the methodology of benchmarking before the hypothetical case study is presented in the last section of this chapter.

Methodology

There are many ways in which companies might choose to do benchmarking. This fact was major reason for the emergence of many different methodologies of benchmarking. For the better understanding of how benchmarking is conducted this chapter will introduce you with the most prominent methodology of the benchmarking introduced by Robert Camp, who wrote his first book on benchmarking in 1989. Robert C. Camp, 1989, p.17.

Robert Camp in his book determined 10 stages of benchmarking. Stages are as follows:

1. Identify what is to be benchmarked.
2. Identify comparative companies.
3. Determine data collection method and collect data.
4. Determine current performance “gap.”
5. Project future performance levels.
6. Communicate benchmark findings and gain acceptance.
7. Establish functional goals.
8. Develop action plans.
9. Implement specific actions and monitor progress.
10. Recalibrate benchmarks.

Benchmarking in Practice

Before we look at some examples of benchmarking it should be stated that in order to decrease the expenses of benchmarking structure, management and organization of benchmarking should be strictly defined. One of the decisions that could make whole benchmarking project in wrong direction is related to the subject of benchmarking. If the subject is not clearly defined or if it does not carry much importance for the business it can end up being a fiasco. In addition to this it should be kept in mind that benchmarking team should be appointed when decision to do benchmarking is made. The greater efficiency is achieved in the case that appointed team takes responsibility for making different initiatives and has complete support from all managers in that certain company. Number of team members varies in accordance to the company size but experiences have shown that benchmarking team functions best if the number of team members is from three to ten.

One of the most difficult tasks of benchmarking team is to choose benchmarking partner. It is not an easy task since there is almost always more than one company with which we would like to compare our own. Nonetheless, well done secondary research of all possible benchmarking partners eliminates many thus it reduces the number of benchmarking partners. Notwithstanding the fact that there can be many possible benchmarking partners, decision of who is going to be chosen as a benchmarking partner also depends on the ones acceptance of its own capabilities and its readiness and willingness to change. Even though deciding upon benchmarking partner is not an easy thing trouble about benchmarking partner does not end up there. There is also need for benchmarking partner to accept its new role. This is related to the capability of benchmarking team to make potential benchmarking partner accept its proposal.

There is no consensus on how benchmarking report should look like nonetheless, benchmarking report should contain the following components.

- Title page
- Short summary
- Subject of the benchmarking and its aims
- Methodology of benchmarking
- Results of the benchmarking research
- Conclusions and recommendations
- Materials that were used during research should be added in the attachment of the report

Benchmarking report is to serve as a reference point in the future implementation of the plan, future planning, good reference for the future benchmarking, reference to a benchmarking partners and other interested in the report results.

Benchmarking and development of new product: ``Electro``, consumer electronics company

The case that will be presented in the last part of the chapter on benchmarking is related to the company ``Electro`` that deals with customer electronics. The case is found by using internet research regarding benchmarking. (www.biba.uni-bremen.de) ``Electro`` decided to conduct a benchmarking project since lower performance in new product development was noticed by company's top management. It was decided that search for ``best in class`` should be made with regard to the shortest time needed to invent of new product and it introduction to the market. Benchmarking 8 member team was formed in order to prepare benchmarking project. Team attended workshop lead by professional marketing agency in order for its member to acquire as much knowledge about benchmarking as possible. After workshop was over benchmarking team developed primary and secondary aims of benchmarking project that they were to develop.

Primary aims were:

- how ``Electro`` can be compared to its benchmarking partners
- what is important for the success of the companies that in short period of time develop new products
- what ``Electro`` needs to do in order for its performance to improve in the field of developing of new products

Secondary aim was to persuade the managers and engineers that work for ``Electro`` to leave traditional way of thinking which was blocking any improvement in ``Electro``.

In the planning phase of benchmarking responsibilities and assignments given to each and every member of the team were strictly defined. In addition to this steps of doing benchmarking were developed.

Steps in conducting benchmarking research are:

- To develop a team spirit among members of benchmarking team
- To specify a working area in which benchmarking will be applied

- To identify criteria upon which ``best in class`` will be chosen
- To specify the sources of secondary data in order to be able to identify ``best in class`` companies and in order to find companies that have best practices in development of new product
- To sum up the lessons learnt from the research of secondary data resources and chose four candidates from the ``Electro`` company that will go and visit ``best in class`` companies
- To arrange visit to two different companies in order to collect as much knowledge as possible with regard to the ways in which they develop a new product and results of their new product development.
- To sum up the results of the visits
- To reach a decision with regard to what is the key to success in development of new products
- To compare the performances of ``Electro`` and the companies that are ``best in class`` and develop a path in which performance of ``Electro`` would increase
- To develop a preliminary action plan that ``Electro`` should follow in order to fasten the time period in which new product is developed

Now criteria for determining benchmarking partner are set. Companies, that are going to be partners in benchmarking need to prove that they are the best and most rapid in new product development. At the same time potential benchmarking partners need to be comparable with ``Electro`` in the size and in the size of their resources. Production units of potential benchmarking partners need to be as complex as the production units of ``Electro`` are, and the quality should be nearly the same. Lastly it is important that partners are open for cooperation and are willing to share their practices, knowledge and results during new product development. After the above stated criteria is listed, preliminary list of potential benchmarking partners is made and the companies that were chosen as benchmarking partners were: ``Motorola`` and ``Hewlett-Packard``.

After benchmarking partners were chosen, the responsibilities and roles were distributed; deadlines for doing assignments were set (collecting secondary data, visiting benchmarking partners, conducting interviews, making summaries).

Analysis and extraction of information from data collected was the step that followed in the benchmarking process in the case of ``Electro``. After all information was collected the differences in performance of ``Electro`` and

``Motorola`` and ``Hewlett-Packard`` became obvious. It was noticed that there are differences in the time needed for the development of new products, its introduction to the market, organization of business activities, and motivation of the employees working in related sector, level of knowledge and practices of designers.

Additionally benchmarking team had prepared a report about benchmarking project that was later on sent to top managers of the ``Electro``.

Last part of the benchmarking process of ``Electro`` was related to implementation and following up the results of benchmarking. Process of benchmarking in ``Electro`` lasted for six months and was considered as great success by top managers of the ``Electro``. Taking into consideration the identified differences in performance between mentioned three companies and new things that were learnt during benchmarking process, the implementation plan was prepared. The major aim of implementation plan was to improve business performance of ``Electro``.

Overall benchmarking project turned out to be great success if we take into consideration the results that followed by looking at practice of the ``best in class``:

- Results of benchmarking project were implemented during development of new product in ``Electro`` and its introduction to the market.
- Time needed for new product development decreased for 55%.
- New product was developed and introduced to the market for 14 months. This was great success compared to 3 years period that was needed for developing and introduction to the market of the new product that was needed before.
- Designers have started to improve their knowledge and to use know findings in development of new products.
- The way of thinking of all employees of ``Electro`` was noticed after implementation of benchmarking project.

Thus, what we saw in above section was the practical example of benchmarking in the case of the ``Electro`` company for Germany. Similarly, other benchmarking researches and benchmarking projects can be conducted. Nonetheless, it cannot be said that way of doing benchmarking is fixed. Beauty of conducting benchmarking comes from the freedom of the possible ways in which benchmarking can be made. Original ideas that come from benchmarking team bring more success to the benchmarking project

compared to the benchmarking that is prepared by following strict rules. We should not forget that companies that chose to do benchmarking are the companies which really have a problem in one or more aspects of their business. Thus, rather than following benchmarking rules for the sake of following them they chose to follow the rules however, reserving the right to change something in order to make it better. It is the originality of each and every benchmarking project that make it attractive to the various companies in trouble.

Conclusions

Reading the chapter on benchmarking might lead some of its readers that benchmarking is nothing more than a comparative analysis. However, it is much more than this. Benchmarking is most of a time done outside of the same industry that is to say it is not generally conducted between the companies from the same industries. In addition to this we saw in this chapter that benchmarking more than reverse engineering and copying of a way in which certain products are made. Benchmarking makes sure that companies learn their lesson and overcome the problem that they had previously identified.

A successful benchmarking process requires three major things: existence of problem and willingness of top managers to solve that problem, existence benchmarking partners who have previously resolved similar problem, and knowledgeable benchmarking team who is willing to use new tools to achieve the aims set by benchmarking project. (Neil Jones, 2004).

This chapter aimed at introducing readers with the basics of benchmarking. Never have benchmarking been more popular than in 2000s and rapid spread of capitalism. More and more countries, especially after the end of Cold War have adopted capitalist economies and now they are trying to compete in world business market. With the spread of capitalism came increase in private ownership and in competitiveness as well. Thus, problems for various companies became everyday reality. In this respect, benchmarking as a problem solution became more and more attractive in 1990s and 2000s. It is very obvious that the popularity of benchmarking has great tendency to continue and we should not ignore it as a subject in general.

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Six Sigma

Safet Zecevic & Hilal Karić

Introduction

For years Six Sigma has been a popular management philosophy. Motorola first made success with Six Sigma implementation and promoted the methodology in the 1980s. Motorola's focus was to reduce number of defect and provide high quality products. Over the six-year observation period, the company achieved an 80 % reduction in cost of quality resulting in manufacturing cost saving of US\$4 billion and a 100% increase of employee productivity (Smith, 1993). In the early 1990s, AlliedSignal took advantage of using it and then General Electric put it at the top of all popular management philosophies in history. AlliedSignal was the first company to start measure improvements achieved through Six Sigma in financial terms and the contribution to the bottom-line. From 1996 to 1999, GE reported Six Sigma driven benefits in the amount of \$4.3 billion. Today, Six Sigma is most commonly used at an operational level to help organizations cut costs, improve processes, and reduce business cycle times.

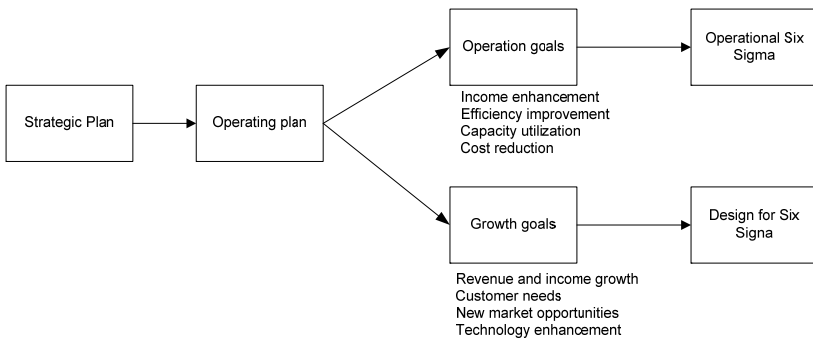
Caulcutt (2001) defined Six Sigma as “an information-driven methodology for reducing waste, increasing customer satisfaction and improving processes, with a focus on financially measurable results”. He stressed importance of data collection and analysis of processes to find points of weak performance and come out with ideas for improvements.

Furthermore, Six Sigma is considered an organizational mindset that emphasizes customer focus and creative process improvement (Brue, 2002). As Harry (1998) declared “the philosophy of Six Sigma recognizes that there is a direct correlation between the number of product defects, wasted operating costs, and the level of customer satisfaction”. With this mindset, employees are prepared to work in teams in order to achieve Six Sigma process performance and final objective of reducing process variation to no more than 3.4 defects per million opportunities.

The goals of this research is to explain the major components of Six Sigma methodology, to show that it can be power tool for business strategy implementation and to present the critical success factors for successful implementation of Six Sigma initiative.

Six Sigma and Business Strategy

All Six Sigma initiatives should be aligned to business strategy. Actually, Six Sigma helps organization to realize its strategy in unique and specific way outperforming and differentiating from its major competitors. The model presented on the next page shows how Six Sigma can be integrated with the organizational business strategy. Depending on the environment organizations have options to pursue growing, reduction or stabilization business strategy. After the strategy is identified, the organization defines the operational goals which realization would also mean implementation of the strategy. In the cases when business strategy focus on growing and increasing market share then Design for Six Sigma is more used. On the other side, if the company business strategy is more focused on stabilization or retraction meaning that cost control and reduction are major operational objectives then Operational (DMAIC) Six Sigma is more utilized. As we can see from the model, at the strategic level, the goal of Six Sigma is to align organizational efforts to its marketplace and deliver real improvements to the bottom line either through business growth or cost reduction. This application can be used to bring stronger integration of an organizational business strategy, processes, culture, and customers’ requirements to achieve and maintain outstanding business results.



Model 1. Six Sigma link to business strategy (Zinkgraf, 2006, p. 2)

Six Sigma initiatives

A process is defined as one or more activities that take input, transform it and provide output for their customers (Zinkgraf, 2006). Six Sigma methodologies suggest organizations to identify the 20 to 30 most important processes in their businesses and focus to try to improve performance of these. They should start by measuring the baseline level of the performance of these processes in other words, to determine Sigma level for each of them. The first measurement would show that majority of processes are operating at two to three Sigma level. The worst would probably be below two Sigma. When the baseline performance is established, the management should identify the most important processes for achieving their current business objectives. Business objectives are the most important goals that company set up on annual basis such as cost reduction, reduction in the workforce, reduction in processing or delivery time, etc. They are usually directly connected to organization financial performance.

Six Sigma implementation methodologies from the strategic point of view can be separated into three major concepts Process management, DMAIC and Design for Six Sigma with leadership in the middle serving as driver of the initiative (Zinkgraf, 2006).

- DFSS generates new processes, products, services, and/or plants.
- DMAIC improves existing process performance.
- Process management is the system that enables leverage and sustains gains achieved by DFSS and DMAIC.
- Leaders drive and align the efforts strategically.



PROCESS TEAMS – Real-time process monitoring and analysis

Model 2. Six Sigma Methodologies (Zinkgraf, 2006, p. 3)

The basis for Six Sigma is the process management which is a company specific system for monitoring process performance and evaluates improvements. Process management includes monitoring real time process

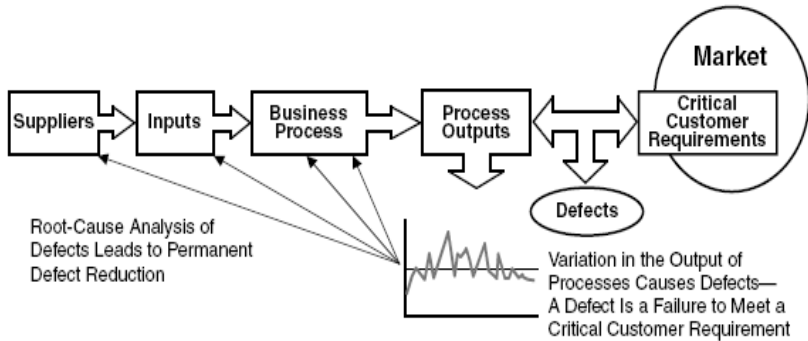
performance and initiating preventive actions to improve unsatisfactory performance. Process management is ongoing activity and it includes all employees from the top to the bottom of an organization. Process teams set up a series of dashboards, metrics, and performance indicators for its core processes, through which they monitor, and evaluate performance and contribution to customer satisfaction. When certain shortcomings are identified, the teams, in line with business strategy, suggest to the top management to start Design for Six Sigma (DFSS) or Define, Measure, Analyze, Improve, and Control (DMAIC) projects to improve organizational performance aligning it again with its environment.

DMAIC (Define, Measure, Analyze, Improve, and Control) improvement initiatives are used when there is needed to improve existing processes. It is systematic improvement methodology which uses specific tools for process, product or service improvement. It is focused on elimination of process steps which do not contribute to product quality or customer satisfaction or use technology to improve performance.

DFSS (Design for Six Sigma) is used when the current processes or product cannot satisfy customer requirements because they are so old-fashioned that lower scale improvement cannot deliver satisfactory results, but process must be completely redesigned. The processes or products are designed using specific six sigma tools and matrices which guarantee that they fulfill six sigma level of quality.

At the middle of the model is leadership which must provide full commitment and promote six sigma initiatives. Without full commitment from leaders, six sigma initiatives are unlikely to succeed.

From the operational level, six sigma goals are to put performance within the limits identified as customer requirements and to reduce process variation. Process variation is identified as the major source of defects which have negative effect on customer's satisfaction. Reducing defect and increasing customer satisfaction are identified as some of the major contributors to business bottom line and long term stability. Once that process management and monitoring determine that a process identified by top management as core process (process important for realization of the business strategy) does not meet requirements, a team of five to seven employees should set up to start improvement initiative. This is how all organization from employees to top managers are integrated by the initiative. It is most common that organization when they start Six Sigma initiative also choose to turn to the some level of matrix organizational structure because such organization best coordinate requirements of line activities and project work.



Model 3. Business Process Management (Brue, 2002, p 12)

Model 2 shows a process which is monitored from the supplier delivering process inputs, transformation and delivering output activities to determine variations in output and defects in final products from customers' point of view (Brue, 2002). The process performance is monitored and documented through time and every defect is examined using Six Sigma tools to determine its root cause. Determining the root cause and elimination of the same represent the major strength of Six Sigma analysis. This approach would permanently, and in the most of cases in the cheapest way, remove a problem at its source providing the highest benefit to the organization. Such initiatives usually last four to six months during what period team uses previously learned six sigma tools to improve sigma performance to realize superior effectiveness and efficiency.

The technical concept behind process management is measurement of number of defects per million opportunities or occasions when process did not meet customers' expectations (Zinkgraf, 2006). For example if a bank serve one million customers during a month the question is how many of them are disappointed with the service they receive. If just 3 of them are unsatisfied, then the bank reached six Sigma performance level. Six Sigma level is equivalent to 3.4 defects per every million customers served. If this number of disappointed customers increases to 233 customers who for example waited longer then they expected or got wrong statement then the bank achieved five sigma levels. The sigma levels are given in the table below. When a process operates at the lowest sigma level then 933.193 defects are determined per million operations.

Long-Term Yield	Process Sigma	Defects per 1,000,000
99.99966	6	3.4
99.98	5	233
99.4	4	6,210
93.3	3	66,807
69.1	2	308,538
30.9	1	691,462
15.9	0.5	841,345
6.7	0	933,193

Table 1. Partial process Sigma conversion table (Zinkgraf, 2006, p.8)

Organization for Six Sigma

The roles of Six Sigma organization are entirely different from hierarchical organization. At the top of initiative is Six Sigma Champion (Smith, 2002). The Champion is responsible to deliver benefits from improvement initiatives. The Champion also assures alignment of improvement or development projects with organizational business strategy. At the operational level, the Champion helps picking team members, provide necessary resources that project work can be done, and remove any obstacles the team might face. The Team leader, who is in Six Sigma organization called Black Belt, is in charge of execution of daily work, leading the team members in setting up the meeting agendas and helping the team in applying six sigma tools and tactics. Black Belt is also expert in application of statistical tools used to assess a process performance. Black Belts are usually employed full time on the improvement and development projects. Six Sigma experts who come from business side and have certain responsibilities in implementation of six sigma tools are Green Belts. Mature organization, in a sense of Six Sigma implementation, also have Master Black Belts who are not team members, but rather assist teams in application more advanced statistical and DMAIC tools. The rest of team consists of business experts

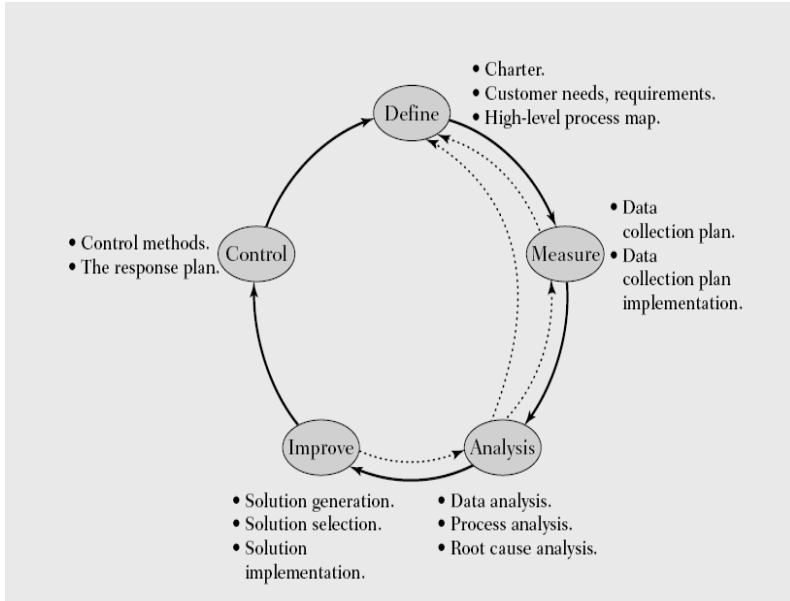
who actually provide business know how and perform majority of work during the project.

It is important to stress that for each of core processes, process owner is nominated whose major responsibility is to monitor process performance and initiate corrective actions when necessary (Smith, 2002). Process owner most majority of their work spend on line activities, and just smaller part they put aside for the process management. During the realization of the improvement projects, process owners are usually team members. They regularly report to top management on their process performance and improvement opportunities they consider or execute. A process owner should be chosen to satisfy the following criteria:

- A subject matter expert.
- Experiences the benefits if the process is performing well and suffers if the process is working defectively.
- Has respect among employees in preceding and subsequent processes.
- Has a propensity for process thinking and improvement.

The phases of improvement process

During improvement project, the work is dividend into five phases (Zinkgraf, 2006). The first step is Define. During this phases the team is formed, project scope and objective are defined in project charter, customers' requirements documented and high level process map is created.



Model 4. DMAIC cycle (Zinkgraf, 2006, p. 6)

The second is Measure phase, during which the process performance is measured. Based on these measurements Six Sigma performance is calculated, usually at the more detailed level than the first, baseline, and measurement done at the very beginning of process management. After the detailed process information is collected, the team can start with Analysis phase. The result of analysis should be determination of root causes for high level of defects and consequently low sigma level performance. This is the most important phase, because based on this analysis the improvement actions would be initiated. It is difficult to teams to engage in deep analysis. They are easy to jump into conclusions immediately after measurements are done and initiate improvement actions without thoughtful analysis. The fourth phase is Improvement during which team generate and select solutions and initiate actions to improve process performance. The final phase is Control during which the team evaluates the actions they took and benefits they delivered. It should be assured that the improvement actions would provide long lasting benefits.

Experiences in implementation of Six Sigma initiatives show that the first projects are the most important and critical for future success (Smith, 2002).

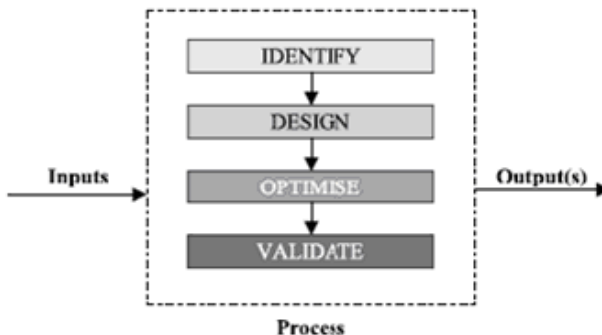
The first projects should be successful in order that all organization accepts the initiative as beneficial to the organization rather as just another management idea that brings more work to employees and no business value. This is the reason that all involved in the project from top to the bottom of the organization need to promote the positive results of the first initiatives. Also, it might be good to choose the most skeptical but influential employees to take part in these first projects. Getting their commitment can immensely help implementation and provide acceptance from others.

Design for Six Sigma

Brue and Launsby (2002) defined Design for Six Sigma (DFSS) as:

“A systematic methodology using tools, training, and measurements to enable the design of products, services, and processes that meet customer expectations at Six Sigma quality levels. DFSS optimizes the design process to achieve Six Sigma performance and integrates characteristics of Six Sigma at the outset of new product development with a disciplined set of tools.”

Design for Six Sigma start with belief that Six Sigma quality should be built in at the beginning of new product development. Applying DFSS provide confidence that the product or service being introduced will be well accepted by customers and be dependable.



Model 5. DFSS cycle Antony (2002, p. 12)

DFSS Cycle

The first phase is Identify during which the customers are identified and their requirements collected Antony (2002). The first definition of design requirements and development planning are done. This stage essentially ensures that the organization understands the criteria for success. After the initial phase, team can turn to Design phase. Different design options and their fulfillment of customers' requirement are analyzed. Also, risk analysis of solution is performed during design phase. Optimize phase involves deeper reflection on design to make sure that the product can be developed and marketed within planned parameters and within a budget. Possible sources of variability should be identified and their influence on the final product minimized. During this phase the design is further optimized for production and reliability. Finally, during Validate phase the team performs the final check of design to ensure that it meets all given requirements and assess product performance, reliability and capability.

In addition another popular DFSS cycle DMADV, which includes the following phases:

1. Define—determine the project goals and the requirements of customers (external and internal),
2. Measure—assess customer needs and specifications,
3. Analyze—examine process options to meet customer requirements,
4. Design—develop the process to meet the customer requirements,
5. Verify—check the design to ensure that it's meeting customer requirements.

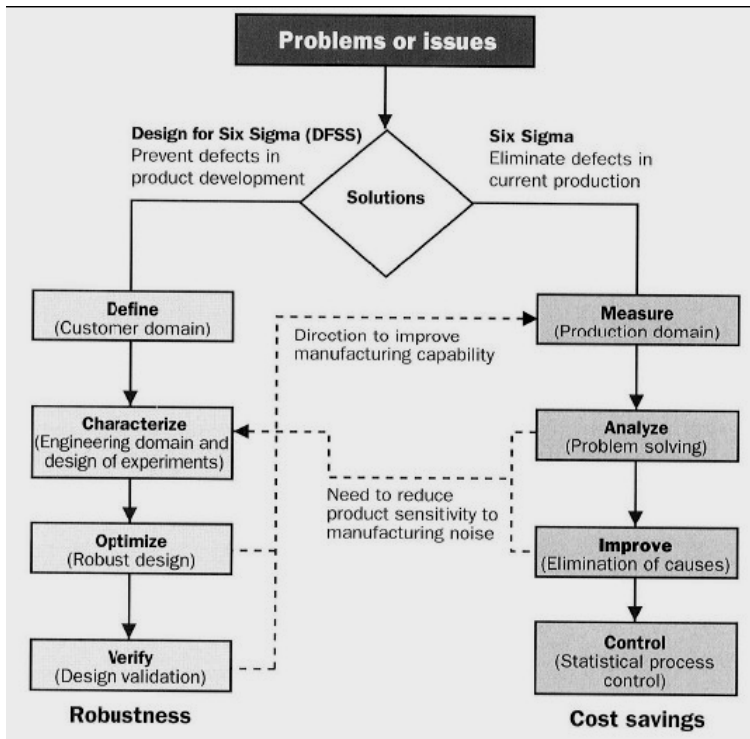
Differences between DMAIC and DFSS

Brue and Launsby (2002) identified the major differences between the Six Sigma DMAIC and DFSS as:

DMAIC	DFSS
More focused on reacting, on detecting and resolving problems	Tends to be more proactive, a means of preventing problems
For products or services that the organization provides to customers	For the design of new products or services and processes
Based on manufacturing or transactional processes	Focused on marketing, R&D, and design
Financial benefits can be quickly	Financial benefits are more difficult

assessed	to quantify and can take 12 months to asses
Lower cultural change	Greater cultural change, DFSS team involves different functions

The Model 6, presented below shows how the project DFSS and DMAIC are connected. After a process or product is developed and in function, it might be necessary after some time DMAIC project needs to be initiated to improve level of performance.



Model 6. DFSS and DMAIC (Brue and Launsby, 2002, p. 22)

The Concept of Acceptance

Six Sigma implementation, additional to technical change, brings more difficult to manage cultural change (Zinkgraf, 2006). Many authors accept the simple equation which best depicts requirements for success of Six Sigma:

$$Q \times A = E$$

- Q refers to the quality of the technical elements of Six Sigma that can include alignment with business strategy done by the champion or top management as well as application of tools and tactics of project teams during project work.
- A refers to the acceptance of Q
- E refers to the excellence of the results.

Basically, the initiative would give excellent results if project provides excellent solutions to process improvement which are accepted by all employees from the bottom to the top.

Critical factors for Six Sigma Implementation

Critical Success Factors (CSFs) are those factors which are critical to the success of any organization. This means that if such factors are not achieved, the organization will not succeed (Rockart, 1979). In the perspective of six sigma project implementation, Critical Success Factors correspond to the required elements without which a project has limited chance for being successful.

Henderson and Evans (2000), based on the study of GE's Six Sigma implementation, suggest top management commitment and support, setting proper organizational infrastructure, training, tools, provision of appropriate incentives, communication of initiative objectives and results, measurement systems and an information technology infrastructure as the key requirements for successfully implementing Six Sigma.

Benuelas and Antony (2001) performed the review of existing literature that has identified the key factors for the effective implementation of Six Sigma. They found that they include: top management involvement and commitment, cultural change, organizational infrastructure, training, project management skills, project prioritization and selection, results reviews and tracking, understanding the six sigma methodology, tools and techniques, linking Six Sigma to business strategy, linking Six Sigma to the customer,

linking Six Sigma to the human resources, and linking Six Sigma to the suppliers.

Hence, the critical success factors of Six Sigma includes a combination of soft factors like top management commitment, training and education, communication, rewards and recognition, etc., and hard factors such as project management skills, effective use statistical tools and techniques, organizational infrastructure, and effective use of methodology.

Top management commitment

The initiative must start at the top of the organization and encompass the entire structure. The top management of the organization must show their commitment to quality. This commitment is demonstrated through development and communication of the company's vision. Their task is to involve everyone in the organization to "participate in the preparation, implementation and evaluation of improvement activities" (Leiter and Maslach, 2003).

The company should form separate organizational structure. A quality council should be established and, led by the CEO, manage the quality initiative (Baidoun and Ziari, 2003). A full-time quality manager should be hired to support the work of the quality council. The responsibility of the quality council is to develop quality policy and goals that are compatible with the company's vision and mission and to communicate them to ensure organization-wide commitment. To meet these objectives it is very important that all managers understand quality initiative and believe in the benefits the implementation would bring to the company. Furthermore the quality council should ensure formation of quality councils at the departmental levels to implement the quality policy and assure achievement of the goals.

Employee commitment

To ensure employee commitment and involvement, top management should work to create necessary condition so that everyone in the organization can take part in "the preparation, implementation and evaluation of improvement activities" (Baidoun and Ziari, 2003). Employees should be educated to understand all concepts of quality management and trained to improve their skills. The company should use effective top-down and bottom-up communication to increase employees' involvement in the quality initiative as well as to promote successes of the initiative.

It is particularly important that middle management get involved into the quality initiative since it is their responsibility to promote the ideas to other employees and ensure their understanding and commitment (Oakland, 2000). Their role should change from control to mentoring empowered employees towards continuous improvement.

Since the issue of employee commitment is one of the most important factors for successful implementation of quality initiative (Kanji, 1998; Oakland, 2000, Dale et al., 2003), it should be supported by adequate employee reward and recognition schemes.

Focus on process improvement

To compete successfully in an efficient and effective way, all parts must work together to achieve common goals, recognizing that each activity and individual affects, and is affected by, others (Oakland, 2000). Internal suppliers and customers form chains within the organization. Appropriate management of these chains adds value to customer satisfaction. This means that organization must focus on those processes that add value to customer satisfaction. The continuous improvement in these processes that results in better final products and services is essential for permanent customer satisfaction.

Baidoun and Zairi (2003) stress importance of implementation of the system which ensures customer satisfaction. This is the reason why the organization, at the early stages of the quality initiative, should focus their resources to set up a formal documented quality system. The system also requires identification of customer needs and adjustment of the processes to better satisfy these needs. Management should ensure availability of adequate resource to map, investigate and improve the processes. This requires division of the processes into sub-processes, activities, and tasks as well as excellent understanding of customers' needs. External supplies represent part of the processes and should be validated and ranked according to their performance.

Organizational culture

The objective of continuous improvements is to constantly meet internal and external customer expectations (Baidoun and Zairi, 2003). This objective is closely related to successful assessment of these needs. To achieve this, the entire organization should be fully committed and feel individual and common responsibility for processes performance (Oakland, 2000).

Kanji (1998) stresses the importance of management by facts and employee commitment for identification of areas for improvement. Six Sigma tools and technique should be used to make sound decisions, leading to improvements and increased customer satisfaction. The decisions should be made in teams and achievements should be recognized and rewarded.

Six Sigma in Practice

Case Study – GE

The case examines the initiatives taken by GE, one of the world's largest diversified companies to implement the Six Sigma quality tool in the 1990s. The case discusses in detail the concept of Six Sigma, its implementation procedure and its benefits. It also explores the implementation procedure at GE and the benefits reaped by the company on account of adopting Six Sigma.

By 2001, with revenues of \$ 125.91 billion and net earnings of \$ 13.68 billion, the US-based General Electric Company (GE) was easily the largest diversified company in the world. Out of the company's 24 different businesses, some were so large that they could independently feature in the Fortune 500 list of companies. GE operated in more than 100 countries and had over 250 manufacturing plants in 26 countries. The company was one of the largest employers in the world with strength of around 275,000 employees. GE remained the only company listed in the Dow Jones Industrial Index that had been included in the original index in 1896.

GE's products ranged from plastic for small compact discs to powerful locomotives. The company was the world leader in light bulbs and power generation equipment. Its diagnostic medical imaging equipment were well known all over the world. In addition, GE had a strong presence in the financial services, consumer durable goods and entertainment businesses (Refer Exhibit I). In the late 1990s, GE initiated various measures to transform itself into a services and solutions-oriented company.

GE was well known for its strong focus on R&D and quality since its inception. The GE Research and Development Center was one of the world's largest and most diversified industrial laboratories. It employed 1,600 people that included around 1,100 scientists, engineers and technicians. The center provided GE's businesses and strategic partners with cost effective technical innovations for various products, processes and services. During the 1990s,

quality became a major issue of concern for the company. This made GE's CEO Jack Welch (Welch) to consider the benefits being derived due to a quality initiative called Six Sigma by companies such as Motorola. Though Welch felt that quality programs were only theoretical and did not show any substantial results, he was impressed by the Six Sigma concept and decided to implement it at GE in 1995.

Before beginning the implementation, studies revealed that GE's operations were carried out between 3-4 sigma, i.e., about 35,000 defects per million opportunities. According to company estimates, avoidable expenditure of \$7-10 billion was being incurred in the form of scrap, reworking of parts, correction of transactional errors, inefficiencies, and lost productivity.

(<http://www.icmrindia.org/casestudies/catalogue/Operations/OPER015.htm>, 13December, 2008).

Jack Welch, Chief Executive Officer of GE, has set a company-wide goal to have all processes reach Six Sigma Quality by the year 2000. Welch and GE realize that attaining Six Sigma Quality will require retraining their entire workforce to think and act like engineers -- an enormous feat with remarkable benefits. To understand the needs of customers, GE stresses five "CTQ's" -- Critical to Quality measures: get the customers what they want, when they want it, on time, undamaged, and working.

The GE Six Sigma program has identified and defined the phases used to optimize processes to ensure a resultant product or service is defect free. These phases, known by the acronym DMAIC, are explicitly followed, and with that, successful results are noticed. The DMAIC process steps include: Define, Measure, Analyze, Improve, and Control. In order to optimize any and all processes within GE, a thorough and rigorous analysis of the applicable data is processed using Minitab, an extremely powerful statistical data analysis program.

Training

The training program currently underway within GE is broad and encompasses all of the salary exempt employees as well as a significant percentage of the non-exempt employees. The training GE employees receive is an intense two part program. The first part is an introduction to DMAIC and Six Sigma concepts, while the second part is a follow-up training to further reinforce newly acquired skills. To accomplish the Six

Sigma Goal, GE established three levels of trainers/project leaders, called "Master Black Belts" (mentors, coordinators, and drivers of GE's entire Six Sigma program), "Black Belts" (primarily focused on training and guiding all Green Belts under their jurisdiction to complete their requirements) and "Green Belts" (part-time project leaders). To date, there are 4,000 full-time Master Black Belts and Black Belts and 60,000 Green Belts.

Leadership

Jack Welch has provided the single most important ingredient to a continuous quality improvement implementation: Leadership. The training program at GE is the result of nothing less than full dedication from the entire leadership structure, starting at the top. Welch has committed the necessary financial resources to the project, and is tying quality improvement to management promotion, forcing a change in corporate culture towards quality improvement. In addition, forty percent of each bonus given to top management is tied to the attainment of Six Sigma goals.

Results

The complexity of a Six Sigma quality program would be impossible to initiate and sustain without dedicated leadership and a thorough approach to training the entire workforce to think customer satisfaction through quality at all times. The training required to attempt a program such as GE's Six Sigma Quality is enormous - it involves retraining an entire workforce to think and act like engineers. GE has spent hundreds of millions of dollars since 1995 to mold a workforce that lives customer satisfaction through quality. Thus far, the realized productivity and service improvements of this training effort have more than paid for the time and assets allocated to the training - and the successes are a significant part of the fuel that is keeping GE's quality juggernaut in motion.

Likewise, Jack Welch has provided GE the steadfast leadership that total quality pioneers, such as Deming and Juran, preach as a primary requirement to the success of a true and lasting quality initiative. The training program is the result of nothing less than full dedication from the entire leadership structure, starting at the top. By constantly preaching Six Sigma, practicing the processes, and providing the necessary assets to approach sufficient training levels, Welch and GE have shown they are fully committed to quality and customer satisfaction. GE, as well as several other companies, have taken the Six Sigma challenge and are proving that higher quality

increases operating margins. (<http://www.theleibys.com/susandocs/sixsigm.html>, 13 December, 2008).

Six Sigma Organizational Architecture & Implementation roles

One of the key innovations of Six Sigma is the professionalizing of quality management functions. Prior to Six Sigma, quality management in practice was largely relegated to the production floor and to statisticians in a separate quality department. Six Sigma borrows martial arts ranking terminology to define a hierarchy (and career path) that cuts across all business functions and a promotion path straight into the executive suite.

Six Sigma identifies several key roles for its successful implementation.

- **Executive Leadership** includes the CEO and other members of top management. They are responsible for setting up a vision for Six Sigma implementation. They also empower the other role holders with the freedom and resources to explore new ideas for breakthrough improvements.
- **Champions** are responsible for Six Sigma implementation across the organization in an integrated manner. The Executive Leadership draws them from upper management. Champions also act as mentors to Black Belts.
- **Master Black Belts**, identified by champions, act as in-house coaches on Six Sigma. They devote 100% of their time to Six Sigma. They assist champions and guide Black Belts and Green Belts. Apart from statistical tasks, their time is spent on ensuring consistent application of Six Sigma across various functions and departments. This is the highest level of technical and organizational proficiency. Because master black belts train black belts, they must know everything the black belts know, as well as understand the mathematical theory on which the statistical methods are based. Masters must be able to assist black belts in applying the methods correctly in unusual situations. Whenever possible, statistical training should be conducted only by master black belts. If it's necessary for black belts and green belts to provide training, they should only do so under the guidance of master black belts. Because of the nature of the master's duties, communications and teaching skills should be judged as important as technical competence in selecting candidates.
- **Black Belts** operate under Master Black Belts to apply Six Sigma methodology to specific projects. They devote 100% of their time to

Six Sigma. They primarily focus on Six Sigma project execution, whereas Champions and Master Black Belts focus on identifying projects/functions for Six Sigma. Candidates for technical leader (black belt) status are technically oriented individuals held in high regard by their peers. They should be actively involved in the organizational change and development process. Candidates may come from a wide range of disciplines and need not be formally trained statisticians or engineers. However, because they are expected to master a wide variety of technical tools in a relatively short period of time, technical leader candidates will probably possess a background in college-level mathematics, the basic tool of quantitative analysis. College-level course work in statistical methods should be a prerequisite.

Six sigma technical leaders work to extract actionable knowledge from an organization's information warehouse. Successful candidates should understand one or more operating systems, spreadsheets, database managers, presentation programs and word processors. As part of their training they will be required to become proficient in the use of one or more advanced statistical analysis software packages.

(http://en.wikipedia.org/wiki/Six_Sigma 28 October, 2008)

- **Green Belts** are the employees who take up Six Sigma implementation along with their other job responsibilities. They operate under the guidance of Black Belts.

Green belts are six sigma team leaders capable of forming and facilitating six sigma teams and managing six sigma projects from concept to completion. Typically, green-belt training consists of five days of classroom training and is conducted in conjunction with six sigma team projects. Training covers facilitation techniques and meeting management, project management, quality management tools, quality control tools, problem solving, and exploratory data analysis. Usually, six sigma black belts help green belts choose their projects prior to the training, attend training with their green belts and assist them with their projects after the training.

(<http://www.isixsigma.com/offsite.asp?A=Fr&Url=http://www.qualitydigest.com/feb00/html/sixsigma.html> 28 October, 2008),

Methodology of Six Sigma

Six Sigma has two key methodologies; **DMAIC** and **DMADV**, both inspired by Deming's Plan-Do-Check-Act Cycle. DMAIC is used to improve an existing business process; DMADV is used to create new product or process designs.

The Similarities of DMAIC and DMADV

Let's first look at the DMAIC and DMADV methodologies and talk about how they're alike. DMAIC and DMADV are both:

- Six Sigma methodologies used to drive defects to less than 3.4 per million opportunities.
- Data intensive solution approaches. Intuition has no place in Six Sigma -- only cold, hard facts.
- Implemented by Green Belts, Black Belts and Master Black Belts.
- Ways to help meet the business/financial bottom-line numbers.
- Implemented with the support of a champion and process owner.

The Differences of DMAIC and DMADV

DMAIC and DMADV sound very similar, don't they? The acronyms even share the first three letters. But that's about where the similarities stop.

DMAIC	Define	• Define the project goals and customer (internal and external) deliverables
	Measure	• Measure the process to determine current performance
	Analyze	• Analyze and determine the root cause(s) of the defects
	Improve	• Improve the process by eliminating defects
	Control	• Control future process performance

When to Use DMAIC

The DMAIC methodology, instead of the DMADV methodology, should be used when a product or process is in existence at your company but is not meeting customer specification or is not performing adequately.

DMADV	Define	• Define the project goals and customer (internal and external) deliverables
	Measure	• Measure and determine customer needs and specifications
	Analyze	• Analyze the process options to meet the customer needs
	Design	• Design (detailed) the process to meet the customer needs
	Verify	• Verify the design performance and ability to meet customer needs

When to Use DMADV

The **DMADV** methodology, instead of the **DMAIC** methodology, should be used when:

- A product or process is not in existence at your company and one needs to be developed
- The existing product or process exists and has been optimized (using either DMAIC or not) and still doesn't meet the level of customer specification or six sigma level

Occasionally a project is scoped as a DMAIC for incremental process improvement when it really required a DMADV methodology improvement. And it was a month into the project that you realized this! Don't be discouraged about the work you put into the DMAIC because 1) it's happened to more businesses than just yours, 2) you understand the process at a much greater detail than you did initially, and 3) you were able to practice not just DMAIC skills but also DMADV!

Pick yourself up, dust yourself off and re-craft your define piece of the project so you can begin with a fresh look at the project and solutions. You

never know what insights you'll have now that you may not have been aware of before.

Motorola emphasizes that in order for Six Sigma to achieve 'breakthrough improvements' that are sustainable over time, Six Sigma's 'process metrics' and 'structured methodology' must be extended and applied to 'improvement opportunities' that are directly linked to 'organizational strategy'. It is difficult to argue with the logic. There is little point in measuring and improving things that have no significant impact on the strategically important organizational processes.

Six Sigma team leaders (Black Belts) work with their teams (team members will normally be people trained up to 'Green Belt' accreditation) to analyze and measure the performance of the identified critical processes. Measurement is typically focused on highly technical interpretations of percentage defects (by which a 'sigma' measurement is arrived at - see the one-to-six sigma conversion scale below), and a deep detailed analysis of processes, involving organizational structures and flow-charts. Many other tools for performance measurement and analysis are used, for example the 'balanced scorecard' method, and 'process mapping', etc., depending on the processes and systems favored by the team leaders and project statisticians, and what needs to be measured and analyzed. Six Sigma does not stipulate specifically what analytical methods must be used - the organization and particularly the team leaders decide these things, which are why implementation and usage of Six Sigma varies so widely, and why Six Sigma will continue to evolve. Any analytical tool can be included within Six Sigma implementation.

Six Sigma experts and commentators commonly refer to typical failure rates of organizations that have not put particular pressure on their quality performance levels. Aside from anything else this at least helps to put the 'Sigma' terminology into a simpler mathematical context:

It is said that many ordinary businesses actually operate at between three and two and sigma performance. This equates to between approximately 66,800 and 308,500 defects per million operations, (which incidentally is also generally considered to be an unsustainable level of customer satisfaction - i.e., the business is likely to be in decline or about to head that way). Bear in mind that an 'operation' is not limited to the manufacturing processes - an 'operation' can be any process critical to customer satisfaction, for example, the operation of correctly understanding a customer request, or the operation

of handling a customer complaint. Six Sigma is not restricted to engineering and production - Six Sigma potentially covers all sorts of service-related activities. What matters is that the operation is identified as being strategically critical and relevant to strategy and customer satisfaction.

A measurement of four sigma equates to approximately 6,200 DPMO, or around 99.4% perfection. This would arguably be an acceptable level of quality in certain types of business, for instance a roadside cafe, but a 99.4% success rate is obviously an unacceptable level of quality in other types of business, for example, passenger aircraft maintenance.

A measurement of five sigma equates to just 233 defects per million opportunities, equivalent to a 99.98% perfection rate, and arguably acceptable to many businesses, although absolutely still not good enough for the aircraft industry.

Criticism of Six Sigma

Six Sigma has made a huge impact on industry and is widely employed as a business strategy for achieving and sustaining operational and service excellence. However, there have also been various criticisms of Six Sigma.

Lack of originality

Noted quality expert, Joseph M. Juran, has described Six Sigma as "a basic version of quality improvement," stating that "[t]here is nothing new there. It includes what we used to call facilitators. They've adopted more flamboyant terms, like belts with different colors. I think that concept has merit to set apart, to create specialists who can be very helpful. Again, that's not a new idea. The American Society for Quality long ago established certificates, such as for reliability engineers."

Role of consultants

The use of "Black Belts" as itinerant change agents is controversial as it has created a cottage industry of training and certification. Critics argue there is overselling of Six Sigma by too great a number of consulting firms, many of which claim expertise in Six Sigma when they only have a rudimentary understanding of the tools and techniques involved.

Studies that indicate negative effects caused by Six Sigma

A *Fortune* article stated that "of 58 large companies that have announced Six Sigma programs, 91 percent have trailed the S&P 500 since." The statement is attributed to "an analysis by Charles Holland of consulting firm Qualpro (which espouses a competing quality-improvement process)." The gist of the article is that Six Sigma is effective at what it is intended to do, but that it is "narrowly designed to fix an existing process" and does not help in "coming up with new products or disruptive technologies." Many of these claims have been argued as being in error or ill-informed.

A *Business Week* article says that James McNerney's introduction of Six Sigma at 3M may have had the effect of stifling creativity. It cites two Wharton School professors who say that Six Sigma leads to incremental innovation at the expense of blue-sky work.

Based on arbitrary standards

While 3.4 defects per million opportunities might work well for certain products/processes, it might not be ideal or cost-effective for others. A pacemaker process might need higher standards, for example, whereas a direct mail advertising campaign might need lower ones. The basis and justification for choosing 6 as the number of standard deviations is not clearly explained. In addition, the Six Sigma model assumes that the process data always conform to the normal distribution. The calculation of defect rates for situations where the normal distribution model does not apply is not properly addressed in the current Six Sigma literature.

Criticism of the 1.5 sigma shift

Because of its arbitrary nature, the 1.5 sigma shift has been dismissed as "goofy" by the statistician Donald J. Wheeler. Its universal applicability is seen as doubtful.

The 1.5 sigma shift has also been contentious because it results in stated "sigma levels" that reflect short-term rather than long-term performance: a process that has long-term defect levels corresponding to 4.5 sigma performance is, by Six Sigma convention, described as a "6 sigma process. The accepted Six Sigma scoring system thus cannot be equated to actual normal distribution probabilities for the stated number of standard deviations, and this has been a key bone of contention about how Six Sigma measures

are defined. The fact that it is rarely explained that a "6 sigma" process will have long-term defect rates corresponding to 4.5 sigma performance rather than actual 6 sigma performance has led several commentators to express the opinion that Six Sigma is a confidence trick.

APPENDIX – 1

1 List of Six Sigma companies

The following companies claim to have successfully implemented Six Sigma in some form or another:

- 3M
- Advanced Micro Devices
- Agilent Technologies
- Air Canada
- Amazon.com
- AXA
- Bank of America
- Bechtel Corporation
- Boeing
- CAE Aviation Training
- Canada Post
- Caterpillar Inc.
- CIGNA
- Cognizant Technology Solutions
- Computer Sciences Corporation
- Cummins Inc.
- Deere & Company
- Dell
- DHL
- Dominion Resources
- DSB Bank
- DuPont
- EMC
- Flextronics
- Ford Motor Company
- General Electric
- Merrill Lynch
- Methodia
- Microflex, Inc.
- Motorola
- Mumbai's Dabbawala
- National Australia Group Europe
- Network Rail
- Nortel Networks
- Northrop Grumman
- Patheon
- Precision Castparts Corp.
- Quest Diagnostics, Inc
- Raytheon
- Samsung Group
- SGL Group
- Shinhan Bank
- Shinhan Card
- Siemens AG
- SKF
- Starwood Hotels & Resorts Worldwide
- Staples Inc.
- Sterlite Optical Technologies
- Teradyne
- Trane
- Textron
- The McGraw-Hill

- General Dynamics
 - Genpact
 - GlaxoSmithKline
 - Honeywell
 - HSBC Group
 - Ingram Micro
 - JEA
 - Korea Telecom
 - Kraton Polymers
 - KTF
 - LG Group
 - Littlewoods Shop Direct Group
 - Lockheed Martin
 - Mando Corporation
- Companies
 - TRW
 - TSYS (Total System Services)
 - United States Air Force
 - United States Army
 - United States Marine Corps
 - United Health Group
 - Vodafone

APPENDIX-2

- 2 List of Six Sigma software packages
- 3 There are generally two classes of software used to support Six Sigma:
 - Analysis tools, which are used to perform statistical or process analysis
 - EngineRoom ,
 - IBM WebSphere Business Modeler ,
 - iGrafx Process for Six Sigma ,
 - JMP, Microsoft Visio,
 - Minitab,
 - SigmaXL ,
 - STATISTICA,
 - Telelogic System Architect,
 - Actuate,
 - The Unscrambler,
 - Select Architect Business Process Modeling,
 - Program management tools, used to manage and track a corporation's entire Six Sigma program

Quality management tools and methodologies used in Six Sigma

Six Sigma makes use of a great number of established quality management methods that are also used outside of Six Sigma. The following table shows an overview of the main methods used.

- 5 Whys
- Analysis of variance
- ANOVA Gauge R&R
- Axiomatic design
- Business Process Mapping
- Catapult exercise on variability
- Cause & effects diagram (also known as fishbone or Ishikawa diagram)
- Chi-square test of independence and fits
- Control chart
- Correlation
- Cost-benefit analysis
- CTQ tree
- Quantitative marketing research through use of Enterprise Feedback Management (EFM) systems
- Design of experiments
- Failure mode and effects analysis
- General linear model
- Histograms
- Homoscedasticity
- Pareto chart
- Pick chart
- Process capability
- Regression analysis
- Root cause analysis
- Run charts
- SIPOC analysis (Suppliers, Inputs, Process, Outputs, Customers)
- Stratification
- Taguchi methods
- Thought process map
- TRIZ

APPENDIX -3

Example Cases

Valuable lessons can be learned from the following organizations:
(<http://www.bpir.com/six-sigma-bpir.com/menu-id-71/example-cases.html>, 28,0ctober, 2008)

- **CIGNA Corp. (United States) *Six Sigma paves the way to quality excellence***

In 2002, CIGNA Corp. in the United States, a provider of employee healthcare and related insurance benefits with more than 28,000 employees,

launched a holistic, grassroots Six Sigma initiative in an attempt to achieve a range of advantages over its competitors. CIGNA began by hiring a 25-year veteran of Motorola. As of 2007, Cigna had 165 black belts and more than 250 green belts in the organization, with a few thousand yellow belts working on its improvement teams. The results have been pervasive and substantial across a variety of projects. One example is from a healthcare intensive case management (ICM) program, which was attempting to reduce re-admission rates for problems such as substance abuse. CIGNA staff identified potential causes for a gap between the perceived and actual performance for readmission, and implemented a number of improvements. A full-year study was designed using 286 patients enrolled in the ICM program compared with 517 patients with similar problems in a control group. The benefits of the Six Sigma group included:

- a 53% decrease in re-admissions
- savings of approximately US\$ 3,000 per patient, and a 49% decrease in total in-patient case costs
- a 14.9% improvement in the rate of patients taking medications as prescribed.

As a result, CIGNA was presented with the North East Quality Council 2007 award for quality excellence.

- **Reliance Industries Ltd (India) *Six Sigma contributes to a \$4-million benefit for a polyester manufacturer***

In its manufacturing processes, Reliance Industries Limited, an India-based Global 500 producer of polyester, generated a large quantity of non-biodegradable polyester waste. [24] To eliminate this waste from the environment, the company recycled it—together with waste bought from other companies—into value-added products at its Polyester Fiberfill operation. The company began a Six Sigma initiative in 2001, which aimed to reduce variation and improve business process performance, profits, customer loyalty, as well as the impact on the environment. A cross-functional team determined the project's effect on performance; the company sought the opinions of stakeholders and then involved them in the process. Main cost drivers and root causes were identified, and various analyses and tools applied. In addition, action plans aligned with stakeholders were developed and implemented. Each implementation step was reviewed for completeness, and adjustments made as necessary to attain the required performance measurements. The project produced significant benefits for the company, including: 10% reduction in the cost of raw materials; 15% increase in the use of recycled waste; 20% reduction in the cost of chemicals;

11% reduction in production costs; noticeable increase in productivity, process capability, and plant yield; 70% reduction in market complaints; 3% increase in product quality; 50% increase in product export. In addition, the project contributed US\$4 million pa in financial benefits, as well as intangible benefits that included increased awareness of stakeholder needs, increased employee morale, and a positive effect on society. The team won the Gold Award at the 2006 International Team Excellence Award Competition.

- **Canada Post (Canada) *Six Sigma helps a mail company achieve its delivery rate targets and stay profitable***

In 2003, the Canada Post Corporation (CPC) started a Lean Six Sigma initiative, which had the stated goal of “the right product in the right place at the right time, all of the time”. [25] Lean and Six Sigma tools were used to reduce waste and improve material flows, which has freed up more than 3 million sq. ft. of floor space that can be rented out to third parties. Specially trained Lean Six Sigma leaders, certified to green and black belt-level, coordinate many of the projects. They use lean material-flow and Six Sigma statistical tools to identify the greatest opportunities for improvement and implement changes. By changing the flow of material and creating preliminary sorting hubs, the corporation required much less space, and the mail flow was kept constant, which reduced the work-in-progress inventory. Employees were given greater authority to react appropriately to blockages. Better incoming mail quality created less handling and rework. Standardization was encouraged along with the use of best practices across the company. Lean/Six Sigma facilitated a 96.8% on-time delivery rate for letter mail against a stated target of 96%, and has so far resulted in ten consecutive years of profitability for the corporation.

- **Dairy Crest (United Kingdom) *Six Sigma delivers productivity improvements***

Dairy Crest’s Spreads Business Unit at Crudgington, Shropshire, in the UK, produces retail dairy spreads, packet and specialty butters, including a top UK grocery brand. In 2002, the company implemented Six Sigma to focus and direct efforts related to “specific and complex quality issues”. A team of six were initially trained: two front-line managers as black belts to lead process improvement teams, and four shop-floor operators as yellow belts to act as improvement team members. Two projects were set up: project 1 investigated the use of metered water and made savings of around 120,000L

per year; project 2 investigated and eliminated overfilling in the production of a product and saved around 5,000L per year. Eliminating the overproduction is currently saving the company around £85,000 each year. These savings have more than offset implementation and training costs. Following this success, the project teams were set a number of new projects to tackle productivity and quality issues. At the time of writing, the Six Sigma team were examining the process capabilities in terms of pack size variation to determine whether changes needed to be made to the plant's machinery or to the pack's production tolerances. Dairy Crest views the Six Sigma process as delivering solutions to certain problems that would not have been tackled under the previous TQM approach, and as the vehicle to deliver major productivity improvements at the plant in the years ahead.

- **Huawei Technologies (China) Six Sigma implementation wins Huawei top national prize**

To meet its goal of becoming the “Toyota of the telecom industry”, Huawei Technologies, a global telecom services provider located in Shenzhen in the southern portion of the Guangdong Province neighboring Hong Kong, invested heavily in quality tools and technology. [27] The company implemented an end-to-end integrated product development process, based its management systems on ISO 9000, and applied TL 9000 (Telecom quality management system) processes and standards across all of its product lines in design, development, manufacturing, sales, installation and service, and placed a strong focus on measurements, tools and methods to enforce strict quality control of production processes. The ASQ certified quality engineer (CQE) program was adopted in 2005, the company began Six Sigma quality initiatives in its manufacturing centre in 2002, and migrated them into R&D product lines. In 2004, the company won the Shenzhen Mayor's Cup Quality Award and the 3 million RMB (\$387,000 US) prize was among the highest quality awards in China

Conclusion

This paper defined Six Sigma initiative organization can pursue in order to improve its performance and achieve long lasting success. It showed how the initiative can be connected to organizational business strategy and actually serves as a tool for strategy implementation. The paper further describes the different components of Six Sigma initiative and their implementation cycles. The methodology consists from three different components: process management system, DMAIC cycle and DFSS cycle. They are used for monitoring of process performance, process improvement project realization and design of new processes and product or service. At the end the paper present the critical success factors for successful implementation of Six Sigma initiative. These can be divided on soft and hard factors and they should be managed in such manner to ensure their full contribution to the identified goals otherwise the organization would not succeed implementing Six Sigma quality initiative. These studies suggest that the companies aiming to Six Sigma must identify an appropriate implementation model that will focus on the critical factors for implementation. One of implementation models is presented within this paper. Particular attention should be given to training of top management to engage in their leadership roles, as well as the training and motivation of other employees to increase their involvement in the quality initiative. The process improvements should be performed around customers' needs and requirements. The change of the predominant culture to continuous improvement culture is the final and the most difficult step to achieve and as such should be supported with appropriate trainings and rewards.

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Flexible Organizational Teams

Alp AY

Introduction

Flexibility is a property of a system, preserving some recognizable qualities in response to change. An organization should be flexible - this presumably means that it should cater for the following classes of change: (Volberda, 1999):

- (i) In the business strategies
- (ii) In the business processes (including technology)
- (iii) In the individual employees occupying each role (skill development, career progression, job rotation, staff turnover)

Flexible Organizational Team has developed a model for understanding and guiding action in complex organizations. Success factors of an organization are;

- clearly defined goals,
- a sense-of-urgency culture,
- communication, and
- Flexible allocation of resources.

The leaders of any efficient organization are aware of the first three of these success factors. The team must know its mission; each member must be highly motivated to achieve the team's goals; and employees at all levels must constantly seek to understand the status and plans of the organization. The fourth factor, however, is not as familiar, but its use has dramatically increased the speed of implementation of new organizations. (Poole and Van de Ven, 1989)

Simply defined, flexible allocation is, "getting the right people on the right projects at the right time". (Volberda, 1999) As circumstances change and new opportunities appear, the resources--people and equipment--available to a research organization are realigned to solve critical problems quickly.

Managers must know the skills of each individual in the organization; then, they must determine which skills are required to solve a given problem and put the right people together on a project team. The flexible allocation method requires the organization to focus on a few projects and drive the right ones to completion. The need to use and apply systems thinking is thoroughly outlined in a leadership model that combines innovation and efficiency with the art of human resources management. Efficiency and reliability, application and innovation, human resources and relations are as key elements in developing effective organizations.

It is evident that organizations are admixtures of stability and change; Organizations are relatively stable, enduring features of life, yet when we look closely they do not appear stable at all. They are continuously changing, continuously being produced and renewed by member activities. Nevertheless, an argument can be made that stability is primary; any change is observable only in contrast to some stable state ... Generally, however, organizational theories have emphasized either stability or change, slighting the other term ... How can both faces of organizations be encompassed in the same framework? (questia.com/ Volberda; Oxford University Press, 1999)

Managers and practitioners have heralded flexibility as the new hallmark of organizational excellence. Representatives of the classical and modern management era, such as Sears, IBM, General Motors, ICI, and Matsushita continue to have myriad difficulties against new-design flexible competitors, such as Wal-Mart, Compaq, Microsoft, and ABB. Other 'best-managed' firms of the 1970s and early 1980s, such as Xerox, GE, Motorola, and Philips have been partly successful in transforming their traditionally designed organizations.

These examples seem to indicate that firms of the classical and modern management era, and the theories derived from them, will give way to firms and theories reflecting the postmodern perspective. Yet, while the business literature on organizational change is replete with prescriptions and directives with regard to the design and management of the new flexible firm (cf. Kanter, 1994; Peters, 1992; Peters and Waterman, 1982; Senge, 1990), there is relatively little theory on flexibility. (questia.com/ Volberda; Oxford University Press, 1999)

In recent years there has been an amazing amount of verbiage instructing managers on how to become 'leading edge', 'excellent', or 'innovative' yet little of it attends to the practical questions of how to actually get things done in organizations. To be sure, there has been a lot of hoopla about the 1990s

heralding a new area of progressive, non-bureaucratic organization, but these New Age ideas are often propounded in such a way as to make their translation into action frustrating or even impossible. (questia.com/ (Eccles and Nohria, 1992: 1)

An extensive array of organizational experiments has been under way in many corporations during the past decade:

- flattening and downsizing corporations;
- re-engineering the business process;
- subcontracting and outsourcing of non- core activities;
- creating multifunctional project teams;
- empowering employees;
- increasing the workforce flexibility (multi-skilled workers);
- expanding the externalized workforce (temporary workers);
- replacing highly specialized machinery for flexible manufacturing systems;
- Developing multipurpose information systems.

These individuals argue that flexibility is required by every organization. Traditional bureaucratic firms severely hamper an organization's ability to respond to accelerating competition. Flexible firms, in contrast, can respond to a wide variety of changes in the competitive environment in an appropriate and timely way yet there is an unresolved sense about whether the above experiments are interrelated or the precise ways that they transform contemporary corporations. There is a shared sense among management gurus and practitioners that these experiments characterize the rise of a new 'flexible firm' (Handy, 1995; Kanter, 1994; Pasmore, 1994; Peters, 1987).

History

Nearly all definitions of organizational flexibility emphasize the adaptive capacity of management in terms of an ability (Aaker and Mascarenhas 1984, Frazelle 1986, Kieser 1969, Scott 1965, Zelenovic 1982), a repertoire (Weick 1982), a degree of freedom (Sanchez 1993, Thompson 1967), or free options (Quinn 1985) to initiate or adapt to competitive change. In most definitions flexibility opposes stability, and only a few emphasize that if flexibility is to have value it must be combined with stability. (Organization Science, Vol.7, No.4, 1996 by Henk W. Volberda)

Weick (1982) concluded that total flexibility makes it impossible for the organization to retain a sense of identity and continuity; in other words, flexibility without stability results in chaos. Similarly, Adler (1988) claimed that flexibility is advantageous or a meaningful concept only against a backdrop of stability. Instability is a result of a lack or excess of flexibility, so flexibility is the middle course between rigidity and overreaction. (Organization Science, Vol.7, No.4, 1996 by Henk W. Volberda).

The concept of flexibility is not entirely new. More than twenty years ago, Steers (1975) demonstrated, on the basis of seventeen organizational effectiveness studies, that flexibility was the evaluation criterion mentioned most frequently.

As a quality primer for the major elements of leadership, some authors have developed a model for understanding and guiding action in complex organizations. Flexible Leadership looks at ways to thoughtfully combine adaptability and effectiveness in the leadership role. Within the context of situational factors, the authors identify efficiency and reliability, application and innovation and human resources and relations as key elements in developing effective organizations. Each category is used to describe effective strategies for leadership by rightly acknowledging that "effective managers must . . . be leaders, and leaders must manage."

The importance of systems thinking is evident throughout the description and application of the Yukl/Lepsinger model for flexible leadership. The authors describe the dynamics of organizational leadership faced by the leaders. These attributes are certainly useful to the school executive. The need to use and apply systems thinking is thoroughly outlined in a leadership model that combines innovation and efficiency with the art of human resources management. This need is summarized in the view that "problems that appear to have been solved often reappear again in new form. Solutions to one problem can create another that is much worse," they write. Unfortunately, Yukl and Lepsinger do not adequately apply this thoughtful leadership framework to the educational setting. Their limited references to public schools miss the potential this framework has for guiding the work of leaders in the public school setting. The experienced school leader may well be able to compensate for the missing connections but also may better use that precious time learning to apply a more school-relevant leadership framework. (John Wiley & Sons, Somerset, N.J., 2004, britannica.com, 13.12.2008)

In this day of mergers and reorganizations, global competition, and fierce bottom-line pressure, companies are challenged to make strategic decisions about staffing, contracting, and outsourcing. An organization needs to maintain the right-sized staff with the right skills and competencies in balance. The goal is to create and manage an adaptive workforce, capable of adjusting quickly to changing business needs. Many Human Resource (HR) departments have long been relegated to formulating staff policies and administering benefits, but there is much HR can do to help an organization adapt to its changing overall business needs. To play this role, HR must have the right resources in place and be conversant with industry best practices. (itcareerplanet.com, July 13, 2006, Stephen Coco)

Flexible Organizations Main Concepts

Several realities are fueling the need for an adaptive workforce strategy. Mergers necessitate rational choices about combining business units. Internal reorganizations shift responsibilities among business units in ways that obviously affect staffing. Regulatory compliance requires external transparency about how companies function. The shift toward optimization compels more stringent cost management, and a large part of the calculus is creating greater efficiencies in the workforce.

Internal multi-skilling: Innovative companies are finding creative approaches to internal resource sharing. For example, an employee hired for one skill-set may in fact play a larger cross-functional role based on his or her competencies.

That person might be looked at not just as a whole FTE (full-time employee), but as a resource that can be divided to meet project based needs. Multi-skilled employees are valuable assets in an adaptive workforce because they can be shifted to deploy their skills as they are most needed.

External mobility (“owning” vs. “renting”): The balance between permanent vs. contingency staff might be seen in terms of “owning” versus “renting” resources. What portion of its workforce should an organization own as permanent staff, and what parts should it rent as consultants or contractors?

Becoming a nimble and flexible organization means defining core skills and competencies, and making sure that hiring practices are geared strictly to those needs.

It makes sense to rent resources for projects with defined datelines, particularly when the skills required do not fit the organization's core set. That means contingent hiring or outsourcing for skills that are specific to finite projects but not widely needed for the organization's full range of business interests. Aligning skills and competencies to business imperatives: Today's savvy HR department works with the business units to understand what the resource needs are and shape policies for hiring and outsourcing. Because these definitions change over time, HR should be involved in structured quarterly or semiannual business discussions to stay abreast of the business direction. (itcareerplanet.com, July 13, 2006, By Stephen Coco).

HR's Evolving Role in Flexible Team Organization

HR's ideal role involves more than translating business imperatives into workforce strategies. If the trend is toward more and more outsourcing, HR must make sure vendor management skills are deployed internally.

For example, if website development is outsourced, the IT or marketing division is still accountable for the effectiveness of the organization's Web presence and must, therefore, be actively involved in managing the outsourced work.

Then there are the larger issues of sourcing strategy: How should contingency workers be used as a complement to permanent staff and to meet peaks in demand? HR should be involved in decisions about these matters?

As the workforce shifts to meet business needs, HR has a role in managing the transformation. Changes will be needed in the recruiting structure. There must be clear on-boarding and sun-setting procedures—particularly for contingency staff, because they need to become immediately productive as they come on board and released when their skills are no longer required.

Change management within the permanent workforce is another focus. Any shift toward increased outsourcing or contingency hiring is bound to cause

strains within business units as employees worry about their jobs and their futures. HR should help the business units in managing the changes.

Finally, HR needs to be involved in performance management. HR has an obvious stake in knowing who the top performers are, and why — information that can be carried forward into future staffing practices.

In assuming the HR model proposed here, HR departments will face some challenges. Here are a few:

- Today's HR staffs need skills beyond their traditional administrative capabilities. They must be capable of providing a strategic value to business units by helping plan for future resource needs.
- HR staff must have the skills to communicate with business units and throughout the organization.
- HR departments must be prepared to deal with the behavioral and tactical consequences of change throughout the organization.
- HR needs to make sure its internal processes are strong and systematic. If HR does not run itself effectively, it cannot assume an upgraded set of dealings with its business partners.
- To take on its expanded role within the larger organization, HR will have some image marketing to do. Convincing HR's partners that it is equipped to be a strategic enabler of business has to occur from the top down.

Companies need strategic support as they maneuver to meet the peaks and valleys in their business cycle with right-sized, competent workforces. HR can provide this support by playing a vital role in shaping the organizations' workforce and contributing to effective change management across the enterprise (articles.directory.net, May 02, 09).

Case Study – Dow Physics Lab

Organizational practices that increase industrial innovation have been reviewed. Techniques to increase R&D productivity also have been studied extensively. Several factors for achieving success in an industrial laboratory were described in a fascinating history of one of Dow Chemical's most innovative and productive laboratories, the Physics Lab, which operated between 1924 and 1950. In this sample case, it describes a modern Dow

laboratory that has effectively adopted the practices of the Physics Lab, added some new practices, and as a result, reached a high level of research productivity.

The Dow Physics Lab developed several of the company's well-known trademarked products, including SARAN wrap, STYROFOAM, and STYRON polystyrene. Since 1990, the Dow Polyolefins Research Laboratory has been compared with the Physics Lab because of the important inventions it has produced. New polymers bringing tremendous value to the polyolefin industry are based on constrained-geometry catalysts developed in the Polyolefin Research Lab. These new polymers include poly (ethylene-~~co~~-olefin) plastomers and elastomers; unique ethylene propylene diene monomer (EPDM) elastomers; enhanced polyethylene; and ethylene-styrene interpolymers. At Dow, the combination of catalyst chemistry and polyolefin process science is trademarked as INSITE Technology. The significance of this technology was recognized when the inventors of a key patent stemming from it received the 1994 National Inventor of the Year Award.

Throughout the past 30 years, the Dow Polyolefin Research Lab has produced important new technology, including high-efficiency Ziegler-Natta catalysts in 1975 and octane copolymer LLDPE in 1978. Since 1990, however, the number of patents based on INSITE Technology--and the speed at which those inventions have been developed and commercialized--has increased markedly. The size of the laboratory's research staff did not change significantly during this period, so experienced researchers in the laboratory were asked what they thought had caused the increased innovation and productivity. Together, they cited more than 20 factors, but nearly every respondent mentioned.

This flexible, team-based approach to discovering and implementing technology broke with tradition at Dow. Twenty years ago, Dow R&D management promoted the "whole job concept", whereby the individual researcher was expected to execute all facets of a project. The researcher was expected to discover new technology, develop it in a mini plant or a pilot plant, implement it at the production scale, and optimize it after implementation. For businesses in which modest growth was expected or encouraged, the whole job concept worked well because it provided incremental improvements in plant productivity; however, for businesses that had obvious growth opportunities, this approach was too slow. With the

discovery of constrained-geometry catalysts and with the first patents filed in the late 1980s, the polyolefin business was poised for growth, and Dow needed a different organizational approach to achieve success (pubs.acs.org, Nov, 11, 2008).

The old way: Process-based R&D

Traditionally, the Dow R&D laboratory was organized in a hierarchical scheme. The lab was divided into three principal functions: research, made up primarily of laboratory scientists and pilot-plant engineers; operations, which encompassed services such as computer support and regulatory affairs; and technical service and development (TS&D), which consisted primarily of development engineers.

The research function was further organized into process groups. Individuals in each process group were associated with either product or process development and were bound to their groups. For example, if a new product were discovered in process group A, only the researchers in the product development group associated with process group A would be expected to bring it to commercialization. Individuals in other product development groups would not work on the project, even if their projects were of much lower value. Researchers were subject to "chains of organizational structure" (7). Senior scientists were scattered throughout the organization. The commercial function also was organized by process groups, making the system even more rigid. Sales and marketing people jealously guarded the resources dedicated to their particular business. The laboratory was staffed to support every facet of the business, but as a whole, this process-based organization lacked flexibility (pubs.acs.org, Nov, 11, 2008).

Moving to skill-based R&D

The Company needed the flexibility to move people to high-priority projects. Putting the right abilities together to maximize effort on the best opportunities required structuring the laboratory on the basis of skills, not products or processes. A skill-based R&D organization does not group people by products, markets, applications, or geographies; rather, it assembles groups according to technical skills.

One feature about this laboratory is rather unusual: The lab is led by a manager-scientist partnership. Because managing a lab is neither completely administrative nor completely technical in nature, each of the major skill groups is led by a manager and a senior scientist who share the challenges of business, people, and technology. The manager-scientist partnerships from every major skill group make up the tactical leadership group. (pubs.acs.org, Nov, 11, 2008)

How flexible allocation works

The first step in deciding how to apply a laboratory's R&D resources is to prioritize potential projects. In a process-based R&D organization, one or two managers decide priorities; however, in a skill-based lab, the task falls to the tactical leadership group. This group--managers and senior scientists from the major skill groups--identifies, quantifies, and prioritizes the lab's work. The strategy for the business (the "what") is the responsibility of the business leadership, but the strategy for achieving the business goals through research (the "how") is the responsibility of the tactical leadership group in the lab.

Net present value, which is the present value of cash inflows minus the present value of cash outflows, is used as a tool to quantify opportunities. The net present value of each project under consideration is calculated and used to guide the tactical leadership group in prioritizing. After priorities are set, the group (or a team selected by the group) identifies the critical issues of the project, establishes expected time lines for the project, and determines the skills and capital equipment required to complete the project.

The second step in allocating resources is to assemble a project group under the leadership of a project champion. The champion often is a member of the leadership group but could come from anywhere in the organization. People with the right skills from any group in the lab--and even outside the organization--are brought together to create a team that will handle the critical tasks for the project. This formation takes place horizontally, across functions of the skill-based organization. The team operates in a "boundary-less" environment without regard for group, geography, or previous assignments. Appropriate equipment is also acquired and pooled.

The emphasis at the group formation stage is on speed because, as Jack Welch the CEO of General Electric said, "Speed, more often than not, ends

up being the competitive differentiator". In addition, development speed affects profitability more than any other factor involved in new product development. However, the flexibility required for ad hoc team formation and the emphasis on speed bring about several problems, including difficulty with ownership issues, uneasiness with the fast pace, and the temptation to neglect scientific reporting.

The definition of ownership is unclear in a skill-based lab. When a company operates using the whole job concept, ownership is clear because individuals, not teams, are responsible for projects. So, Dow addresses ownership issues by encouraging team-building activities and team recognition. Discomfort and uncertainty can arise from what one technician has described as the "nutty pace" of the lab. Projects can die quickly using flexible allocation of resources, but they can succeed just as quickly, too. Still, most people feel that the satisfaction of success makes the fast pace worthwhile and a slow pace intolerable. Because the pace of a project is so fast, people may be tempted to shortchange the scientific reporting. For the sake of good science, however, all individuals should be encouraged to make reports a priority, not an option. Scientific reporting is encouraged at Dow by including it as one of the objectives in the performance review process.

A third resource allocation step has resulted from people's concerns about operating in a flexible environment. Although many have claimed that self-directed work teams are effective, the supervisor-employee relationship has been retained in the skill-based organization. These relationships are formed vertically, within functions. Personal attention to employee satisfaction is important, especially in a fast-paced environment. Supervisors and employees are encouraged to discuss topics such as goal setting, performance evaluation, and career counseling. (pubs.acs.org, Nov, 11, 2008).

Flexible allocation in practice

Once a business has set its strategy, flexible allocation of R&D resources can allow the fast development and implementation of value-generating technology. Most laboratories have more opportunities than resources. The projects with the highest net present values win resources in proportion to their value, and because each project has a relative richness in resources, the many activities required to validate its concept can run in parallel. The business will have the information necessary to make a "Go/No go" decision

much more quickly than if it had to wait for all the activities to be done in series. Projects can succeed quickly or be killed just as quickly.

A second way to speed development is to leverage skills beyond the laboratory. Skill sets outside the laboratory can be sought and applied. Appropriate people from universities, consultant firms, and even customer firms can be added to a project team.

The third way to speed development involves the so-called soft skills. Diversity is exploited by combining not only hard skills (technical knowledge) but also soft skills (work styles). Combining individuals with complementary styles--for example, subject experts with people who can integrate broad areas of technology--can accelerate a project's development time because work can be done concurrently. Placing known project starters with people who can develop and finish projects also can bring about results more quickly. When deciding who to bring together in a project, managers should consider hard as well as soft skills so that the project team can capitalize on the strengths of its members (pubs.acs.org, Nov, 11, 2008)

Value is the key

The key to laboratory productivity using flexible allocation of resources is a focus on value. In summary, the steps are as follows:

- Identify lab goals and prioritize them based on value.
- Define the critical issues associated with the goal, and initiate the project.
- With an appreciation of the value of speed, establish expected time lines.
- Identify skill and equipment requirements.
- Assign people to the project team in such a way that their skills can be shared.
- Monitor progress toward meeting the goal; be ready to shelve or halt the project if it stalls.

Organizing the laboratory on the basis of skills instead of process, product, or market brings about the flexibility to realign researchers to take advantage of major new opportunities. Laboratory leadership by managers and scientists in

partnership has increased the speed of development through a faster analysis of the value and challenge of each project (pubs.acs.org, Nov, 11, 2008).

Flexible Organizations versus Traditional Organizations

Flexible organizations: using organizational design as a competitive advantage. If global, turbulent markets require organizations to be flexible adopting whatever configuration is needed, then executives, academicians, and consultants must rethink current value judgments - judgments that imply flattened organizations are "good" and hierarchical organizations are "bad." Hierarchical organizations are becoming synonymous with the inefficiencies of a poorly run bureaucracy.

Flattened organizations are becoming the paragon of virtue, although no significant studies have proven that they outperform well-run hierarchies. Indeed, the emphasis has shifted from managing and leading to creating teams and allowing them to find the secret to good management. What organizations are learning, however, is that no matter how the organization is configured, there is no substitute for good management.

If nothing else, believing that flattened organizations are the answer to survival is a cultural trap. Americans are creating flattened organizations which meet their unspoken cultural assumptions about relationships, authority, and creativity. Flattened organizations resemble the American cultural dream of equality and fairness, creating a society in which anyone, regardless of background, can succeed and find happiness. Many other cultures, however, do not share these values and find flattened organizations a chaotic, non-productive way to work (Carroll, Delacroix, and Goodstein, 1990).

The concept of flexible organizations avoids this cultural trap and current bias that one organizational design is better than the other. It avoids overtones of political correctness and refocuses the issue on what works best. This concept uses bottom line measures, such as market share, profitability, key operating ratios, and customer satisfaction measures to decide which design performs better, making performance the key issue for the organization.

So, the design questions become which organizational design performs better in a particular market and location, and which design best enhances the company's core competencies - the employees' intellectual and physical capabilities that the company uses for competitive advantage. The executive's operating focus becomes how to create congruency - the fit among all organizational components consistent to the chosen organizational design - so that the organization is the most efficient.

Like any other philosophical shift, the implications for leading, guiding, and managing organizations are immense. These are the key constructs of organization leadership might shift from a traditional organizational design approach to the flexible organization approach.

Executive Focus

In the traditional organization, executives associate organizational design with management style. Executives who have good interpersonal skills, are comfortable with delegating, and enjoy the intellectual challenge of a healthy debate, favor flatter, more participative designs. Executives who have a high need for control, a genius for detail and a strong ability to organize, prefer hierarchical, closely managed configurations. Debates among the differing styles are often endless and pointless, for the argument regresses into one of personal preference.

In the flexible organization, organizational design is an internal business strategy issue, equally important to developing the corporate strategy. Just as executives ask "what is the best strategy to succeed in a market," they also must ask "what is the best organizational design to align the work force with the corporate strategy?" The executive focus remains strategic, searching for the organizational configuration that will gain a competitive advantage for the corporation or strategic business unit.

Design Preference

Traditional organization executives frequently overlook the importance of organizational design. They tend to view organizations mechanistically, focusing on the pieces rather than the whole. They adjust or align organizational components, such as reward systems or measures, and ignore

the changes in other components caused by the realignment. Their management experience has taught them to focus more on refining the parts rather than the whole. They replicate other companies' designs because they do not understand how to redesign theirs. They make the mistake of assuming that an organizational design that works well for a market leader in their industry or a similar industry, will work in their company.

Flexible organization executives are more innovative, preferring organization configurations based on several factors. They examine their company's market needs, the host country's culture, the competitors and the nature of the industry, and the core competencies. They assess how different organizational designs can provide a competitive advantage in differing scenarios. In short, they manage organizational design as they manage any other aspect of their organizations, as a strategic initiative that needs to be revisited regularly to ensure that it is contributing maximum value to the corporations' performance.

Change Strategy

To create flexibility, executives not only need to understand the process of change, but the strategy of change (Van De Ven and Poole, 1995). The steps in strategizing change are: Determine and select the organizational design that best matches the corporate strategy (alignment), Assess whether the organization's employees can work well in the preferred design, and Develop an action plan (strategy) on how to rebalance (creating a new congruency) the organization from the current configuration to the new one.

Developing a change strategy is clearly different from designing a change process. Designing a change process without first developing a change strategy is analogous to building a house without a blueprint. The organizational change strategy is the internal equivalent of the corporate strategy and must be treated with the same thoughtful consideration. The change strategy is critical to managing the chaos of changing from one configuration to another. Any organizational change is chaotic. Too many variables exist for it to be planned and orderly. A high-level, well-conceived plan places boundaries around the chaos and guides its energy toward the new configuration.

Traditional organization executives tend to ignore developing a change strategy. They are misled into believing that creating a vision, mission, and philosophy is the same as creating a change strategy. They believe it is sufficient to develop a vision and mission, then implement a change process. Operating under this assumption, they are quickly rewarded with organizational change, sometimes significant change. However, this type of change is usually temporary. The change does not hold because the system is incongruent - out of balance - and, as soon as external factors place stress on the organization, people quickly return to the old ways of working, undoing the change, and frequently leaving the company performing more poorly than before.

Flexible organization executives see clearly the need to build an organization that can grow and learn, that can change to anticipate and meet external environment needs. To create flexibility, this new breed of executives not only understands the process of change, but the strategy of change. First, they view organizational change as an inherent capability within the organization. Regardless of the organizational configuration, the flexible organization is capable of self-correcting, adjusting its internal components to changes in the external environment. Second, they understand that discontinuous organizational change - making radical changes in organizational designs - requires viewing the organization holistically and developing an enabling change strategy which rebalances the organization around the new configuration.

Rebalancing, recreating congruency among and within organizational components is the key to radical, discontinuous change (Beckhard and Pritchard, 1992; Nadler, Shaw, and Walton, 1995). Rebalancing ensures that the new design will work, and that the company's executives, managers, and employees will not return to more comfortable, old and "proven" methods of working. Flexible executives assess which organizational components to change first, determining which will have the greatest impact and establish the new design as fast as possible. They weigh the risks of leaving some components incongruent, while they adjust those most crucial to supporting the new way of working. They manage the risk of incongruence, by understanding both the negative and positive impact of incongruence, planning for it, and managing it until they can change it.

Change Process

Traditional organization executives impose a change methodology on the company. They view this change methodology as a separate process from managing, as a process to be imposed only when a significant organizational change needs to occur. They superimpose the change process on the organization, not understanding that they are simply reinforcing the resistance to any further organizational change. Traditional organization executives view the change process as a project to manage, with clearly defined goals, mileposts, and endpoints. Typically, they also see it as something to delegate, while they focus on more important strategic issues.

Traditional organizational executives view the change process as having a destination, as being a one-time event (or worse a two-time chaotic nightmare) that happens to occur during their tenure. They equate the organizational change process with an individual change process. They view people and organizations as resisting change, wanting to hold onto the old ways because of ignorance or stubbornness. They do not view people's refusal to change as a rational reaction to the current environment. Rather, they view the resistance as a persistent disease that infects those who work in organizations.

Flexible organization executives understand change through a broader perspective of the organizational life cycle (Aldrich and Auster, 1990; Freeman, 1990). They lead the organization on the journey through that life cycle, understanding their role is to lead a continual renewal process, adjusting to shifting environments in different stages of the life cycle. Although clearly focused on mileposts, they are not concerned with endpoints. They design and redesign their companies as frequently as needed, understanding that how well they manage is a separate issue from how aligned the organization design is. They have few biases about how well teams work, or how difficult a matrix is to manage. They use what works.

The Language and Process of Flexible Organizations - Organizational Design Archetypes

In flexible organizations, the strategy development process flows from the market through the organization to the employee and then back again. The process:

- Identifies the market dynamics and links them to targeted customer needs,
- Identifies corporate strategies that leverage the company's core competencies into the market,
- Links corporate strategies to core competencies through the organizational design,
- Rebalances the organization by realigning the organizational components, and
- Bonds of the organizational design to the employees through a consistent management style.

The mantra of flexible organization executives is "align, link, and make congruent." As they lead their companies' strategy development process they need to ask all participants, regardless of number,

"Is the proposed strategy aligned with the market?"

"Is the proposed organizational design aligned with the strategy?"

"Are our organizational components congruent with our proposed design?" and,

"Are we behaving consistently with the philosophy of the design?"

By asking these questions, flexible organization executives raise the thinking process of all involved to a truly strategic level.

Exhibit #1 further illustrates the strategy development process and emphasizes two key constructs that change the process from a typical traditional organizational strategy development process to a flexible organizational process.

The two constructs, archetypes and congruency, are not new, but serve as catalyst to thinking in a new way, consistent with the flexible organizational approach.

EXHIBIT 1

Strategy Development Process in Flexible Organizations

FOCUS	PROCESS
Corporate Strategy Design Strategy	Align strategy to market. Link strategy to core competencies. Select archetype. Align and link corporate strategy and core competencies through organizational design.
Operating Strategy Management	Create organizational congruence. Align and fit organizational components to the archetypes. Create a supervisor - employee working environment

Style Strategy that supports the design.

Organizational design archetypes are sets of characteristics that describe various organizational architectures. Historically, organizational designs have come in many shapes, from centralized to decentralized, functional to matrix, rectangle to wheel, right-side-up pyramid to upside-down pyramid, and cylinder to circle. Entrepreneurs, executives, consultants, and academicians have experimented with almost all of the geometric shapes. Because of all this creativity, a set of archetypes exists that represents most of the organizational forms in use from the cottage industry age to the information age.

These archetypes are simply models of typical forms - organizational designs - of modern organizations. The archetypes help executives discuss and use organizational design as a competitive advantage. They provide flexible organization executives with a short-hand that enables them to clearly articulate the strategy of radical organization redesign.

The three archetypes, identified in the left-hand column as "Highly Centralized," Moderately Centralized, Moderately Autonomous," and "Highly Autonomous and Decentralized," are anchor points. Further archetype variations exist and fall somewhere in between. The description of each archetype is detailed in the right-hand columns next to the archetype. Each column represents an internal organizational component based on the People-Centered Organizations framework for building flexible organizations introduced in *Building Flexible Organizations: A People-Centered Approach*. The components, Genetic Core; Philosophy; Formal Organization; Information; Technology; and Work Processes; Behavior; Informal Organization; and Culture are seven interactive aspects of any organization that collectively form the organization's architecture. The detailed descriptions in each column identify the particular characteristics of each component within the archetype.

The "Highly Centralized" archetype characterizes a pure functional organized hierarchy in which the executives keep a very tight locus of control, commands are passed down through the organizational levels, and executive interaction with employee's more than one level below them is minimal. The operating philosophy is consistent with a highly centralized organization: executives and managers direct, employees follow. The organization has multiple levels of hierarchy, has clear and fixed functional areas, with all control and accountability directed downward. Other information flows are

similarly directed downward, on a need-to-know basis. Employees turn to their supervisors for instructions and the information needed to do their jobs, and have little need to share job related information with their peers.

In this "Highly Centralized" archetype, the technology is functionally controlled, data is available only as needed, and strategic information technology decisions are made by the chief executive officer. Work processes are pre-determined, routinized, and standardized. Employees are expected to precisely follow the work processes. Employees behave consistently with hierarchical expectations, following policies, procedures, and practices as closely as possible. Decisions are referred upward, conflict is resolved through the hierarchy, and the management style is to "follow the book."

Typically employees use their work breaks to discuss personal issues, avoiding job-related discussions other than how any news may affect them. "Highly Centralized" companies have few informal leaders involved in organizational processes, have little or no cross-functional socialization, and have an active grapevine supplying employees with information unavailable in the formal communication channels. Status is very important, and employees advertise their status in a variety of ways, including dress, facility location, and peer groups. Employees defer to organizational superiors in meetings, waiting for the ranking manager before starting a meeting.

The "Moderately Centralized, Moderately Cross-Functional" archetype has a small core of executives who make key strategic decisions. The core group will expand to include other executives or managers with a special expertise that matches the strategic situation. The organization's philosophy stresses following pre-set rules and procedures and using individual judgment. The executives have intentionally kept hierarchical levels low, and have stressed cross-functional cooperation. Serving internal customers is stressed by functional management. The strategic plan, key budgetary information, and performance measures are shared with all employees. The information technology is designed to encourage cross-functional cooperation, user input is formally solicited. More often than not, the information technology steering committee, composed of functional managers, decides key IT strategy and direction.

Employees are comfortable serving two sets of customers, management and their customers downstream in the work process. When work processes need to be revised, employees recommend changes to management, and, after receiving approval, implement the changes. In all facets of their work,

employees are expected to make recommendations for improvement, seek management approval, and implement the approved recommendations. Employees frequently discuss job-related issues with their peers. When they disagree about content they seek ways to bridge the disagreements. Managers are encouraged to blend past operating knowledge with situational information to resolve operating problems.

In the "Moderately Centralized, Moderately Cross-Functional" archetype the informal networks cut across functional and some hierarchical boundaries. The focus on cross-functional cooperation reduces the number of times that employees must bypass the formal organization to get their jobs done. The organization's grapevine carries a mix of company-wide and personal information. Status is not nearly as important as in the "Highly Centralized" archetype, and status symbols are more subtle. Employees socialize as they work across functional boundaries and hierarchical lines.

The "Highly Autonomous and Decentralized" companies are process-based, extremely flat organizations. They have no single locus of power, rather sets of cores that are linked together. Membership in the genetic core varies by situation, need, and timing. Genetic core members have face-to-face contact with everyone in the organization, and discuss strategic and tactical issues with anyone involved in the issue. The company's operating philosophy emphasizes independent judgment, solving problems based on the situation. The hierarchy is minimal. All financial, performance, and customer information is available on request by anyone in the organization. Accountability flows up, down, and across the organization, focused on meeting external customers' needs and commonly developed and accepted objectives. The entire company is organized around core processes, with only a few supporting functional roles.

Employees are focused on getting the job done, free to talk to anyone in the organization to get the information they need to do a task. Employees belong to multiple work groups, challenge each other continually, and seldom accept any data as "given." Wherever possible, technology is used to support the user's quest to do the job better. Users and functional specialists work together to develop better strategic and tactical solutions. Users are encouraged to experiment with better equipment, methodologies, or approaches. Work processes are fluid, seldom is a work task done in the same way twice.

Consistent with this wide open approach, informal employee networks crisscross the organization. Employees frequently discuss company strategy and tactics at any opportunity, even during social events, downtime, and non-working hours. The grapevine, relieved of the need to communicate company information, is filled with personal information. Everyone de-emphasizes status. In fact, the culture punishes attempts to differentiate on rank or specialty. All employees feel free to become involved in any recreational activity that they chose.

Organizational Archetypes and Flexibility

Highly Centralized	Moderately Decentralized	Highly Autonomous
#1	#5	#10

These three archetypes are points on a continuum, ranging from "Highly Centralized" as the far point on one end of the continuum and "Highly Autonomous and Decentralized" on the other.

Any number of archetypes can be inserted into this continuum. Each archetype is indicated by a point on the continuum, identifying a distinct organizational design.

Each archetype represents an organizational architecture that fulfills a strategic purpose. In general, the lower numbered archetypes are organizational designs that are best for routinized production and the higher numbered archetypes are best for creativity and innovation. Producing a precision product that requires extremely tight tolerances, high quality, and high volumes on a timely basis would be done best in archetypes #1 or #2. These archetypes create a highly disciplined, routinized work environment necessary to ensure the tight product specifications. Conversely, brainstorming new software demands creativity and innovation, accepting risk, and shaking off failure. Archetypes in the range of #7 or #8 are better at creating this type of work environment, where everyone can readily access and share information and knowledge. If a company both brainstormed and developed software, as many do, it would couple an archetype #7 unit which created the ideas with an archetype #2 unit to develop and produce the ideas.

Using the archetype language, flexible organizations are those that can move from one archetype to another, or mix archetypes. Flexible organizations must shift archetypes as their markets shift, their products obsolesce, their

competitors introduce radically new products, or new technology presents huge cost-savings opportunities. Two brief case studies illustrate this.

Case Study-2- Shifting to a New Manufacturing Design

In the late 70's and early 80's, the market for office furniture radically changed. Skyrocketing property values and an increasing number of white collar jobs created demand for new types of office furniture. Corporations were caught in a double bind: the nature of the work demanded that employees have enough room and privacy, but the high cost of real estate prohibited offices for everyone. The traditional desk in a small walled room within a large building was no longer an affordable answer, and large, open rooms filled with back-to-back desks were no longer culturally acceptable. The office furniture industry responded by inventing flexible wall office systems, that provide the employee with a portable cubicle. The flexible wall systems were very successful, providing a low cost answer that could be easily reconfigured.

The market shift, and the resulting innovation, created a boom market for office furniture manufacturers. However, they faced an organizational design problem. Much of the furniture was handmade and the high-end companies employed hundreds of highly-paid, highly-experienced craftsmen. The manufacturing floor was a job shop, with the furniture moving from one craft area to the next. The craftsmen were proud of their ability and their furniture, enjoyed their work, and demanded and received the respect due them. They were highly independent, needed little supervision, and worked at their own pace. Additionally, they built quality into their products, critically scrutinizing their own work, and rejecting any work that did not meet their extremely demanding professional standards.

Recognizing this market shift, one leading manufacturer's executive team decided to shift from individually produced pieces of furniture to mass production of flexible office systems. They reshaped their corporate strategy from making high-end, hand-crafted masterpieces to producing high-end, eye-pleasing flexible wall office systems. The change in strategy demanded a change in organizational design. A well run, moderately autonomous, job shop could not efficiently and effectively mass produce the new products. Consequently, the executive team had to shift their organizational design from an archetype #7 to an archetype #3, a moderately centralized hierarchy.

Once the executive team had chosen their design preference - the archetype that was aligned with their strategy - they had to develop a change strategy to implement the new design. The executive team included the change strategy within the operating plan, identifying the change priorities as: (1) changing the craft job shops into production lines, and (2) purchasing equipment to handle much larger volumes. They also understood that the manufacturing management team was skilled at managing a craft shop, but unlikely to succeed in operating a high volume production line facility. Consequently, they needed a new management style to link the employees to the new design. They recruited a new Chief Operating Officer who had extensive experience in managing production lines. His assignment was to instill manufacturing discipline throughout the organization, and change the culture to be congruent with the new organizational design.

The results were impressively good and bad. The new organizational design enabled the facility to almost double its volume, effectively compete with competitors who had already switched to manufacturing flexible wall systems, and to retain its profit margins. However, lead times greatly increased, quality often suffered, and on-time delivery was one of the worst in the industry. The performance problems were a direct result of the limited change plan, which failed to focus on the company's roots as a craft shop. The executive team failed to rebalance the organizational components, creating a high degree of incongruence in the company. The artisan self-directed work style could not cope with the demands of mass production, and management was unable to capitalize on its employees' deep commitment to quality. Ironically, the quality and lead time issues forced the executive management team to change the organizational design five years later to manufacturing cells and "just in time" delivery. In essence, it was a return to archetype #7.

The change from archetype #7 to #3, then back again to #7 may well be a typical transition for a company as it moves through the organizational life cycle. As organizations progress through the organizational life cycle phases - start-up, growth, stability and maturity, and decline - they need to change their designs to meet the differing challenges of each stage. The office furniture manufacturer followed the normal progression of growth. Shortly after the start-up stage, the company created moderately autonomous job shops, making specifically designed pieces by order. As the company grew, and mass production of new but similar products was needed, they changed from a job shop to a relatively centralized mass production facility. As the market matured, and concurrently, the company matured, the executives

again redesigned the company to gain competitive advantage in the quality and customization available in a moderately autonomous job shop.

The executives' inability to manage the transition process from one archetype to another is a separate issue from the need to change organizational designs. The executive team, unable to conceptualize the organization as a whole system, had great difficulty in building a congruent organization. The company's major problems with lead times and on-time delivery were partially attributable to lack of functional coordination caused by executive behavior.

Case Study -3- Choosing Strategic Archetypes in a Complex Organization

Complex organizations frequently must change organizational designs of operating or support units to realign with acquisitions. They may couple flat, decentralized operating units, with centralized, highly-automated, shared functions. They are able to effectively manage the interface between the disparate organizational designs so that each provides high quality, customized, customer service. Some units encourage creativity and spontaneity while other units foster adherence to strict tolerances and specifications. Flexible organizations are not those of a particular design, such as team-based or matrix organizations, but rather organizations that can change from one design to another as needed.

A resort company committed to a rapid growth strategy provides an illustration of this type of flexibility. The resort market is crowded, competitive, and vulnerable to economic downturns. Resort companies adopt many strategies to counter the cyclical nature of the business. Some of the many strategies are to expand to the corporate conference market, create a unique attraction, provide low cost vacations, or exploit a recreational market such as skiing or golf. Of course, many resort companies use a combination of several of these strategies.

The executive team of one company decided to combine these strategies by expanding from their high-end of resort and conference center to a mix of properties covering the low- and medium-end of the market. They successfully acquired a significant number of properties, implemented their high-end service culture in all the properties, and were disappointed with the financial results. The executives quickly realized that they had redundancies built into their complex organization. Their experience was in operating a

high-end property that was an archetype #5; a moderately centralized, cross-functional organization. However, to operate the new, more complex organization without the redundant costs that were eroding their bottom line profits, they needed to redesign some of the support functions. They decided to redesign finance and marketing as archetypes #2, highly centralized units to take advantage of economies of scale.

Like the furniture manufacturing company, the resort company executives were realigning their organizational design with their market. For marketing and finance, they chose archetype #2 - highly centralized - as the design that best fit their customers. With a centralized marketing function, vacationers and business conference coordinators could now call one central number to find which property would meet their needs, making their search easier and faster. The various properties, marketing's internal customers, would have a greater volume because a centralized marketing function had more advertising resources and greater market penetration capabilities.

A centralized finance function also was better able to serve its customers. The Board of Directors received consolidated financial statements and reports, enabling it to better develop capitalization strategies. The executives and managers of the properties, Finance's internal customers, were freed from the complex and time-consuming tasks of ensuring crisp and clear financial reporting to the Board.

The executive team discovered that changing to archetype #2 for these two functions was easy. The very nature of each function lent itself to centralization, and the change was smooth. However, once the changes had been made, the management style was a major obstacle to integrating each function into the rest of the company. Each function needed an executive and management team that could both comfortably operate a hierarchically controlled function, and create the linkages to a decentralized, cross-functional, archetype #6 operating company. The executive team managed this obstacle by a trial-and-error, experimenting with several executives until they found two who fit.

Further Questions and Research

A great deal of new information is needed to help executives lead and guide flexible organizations. Using the discipline of the flexible organization strategy development process raises a series of questions to be answered.

1. What organizational designs best align with various strategies?
2. Are the design archetypes true representations of organizational architectures?
3. How far is "too far" in changing archetypes?
 - a. Is it easier, for example, to move from archetype #4 to #5 than to move from #3 to #7.
 - b. Which direction is more difficult? Is it easier to move from a hierarchy to a flattened organization or from a flattened organization to a hierarchy?
 - . What are the typical change patterns that occur in the organizational components when changing archetypes?
 - a. Does the formal organization change before or after behavior changes?
 - b. Do the communication systems drive the change?
 - c. What are the variations by organizational life cycle stage? By industry? By performance?
5. What archetypes are most common in a particular industry? Which ones span SIC codes?
6. How congruent must an organization's components be? Can congruency be measured? What degree of congruency is "good"?
7. How fluid is the congruency? Are the components rigidly fitted together, unable to shift to a new equilibrium, or do they adapt to new demands from customers and markets?
8. When shifting to a new alignment, which organizational components must be changed first? Which are the most difficult to change? Which have the most impact?

Entrepreneurs, executives, consultants, and academicians have suggested many answers to these questions, but there is very little empirical research. The author and his colleagues are conducting longitudinal studies that will provide empirical data on this "soft" area of organizational theory. (<http://www.allbusiness.com/management/change-management/614560-1.html>) (13.12.2008).

Conclusion

The new world of business management is full of change for all aspects of different management in our century.

The following changes have transformed organizations and lives;

- Globalization
- Technology
- The consumer's demand for quality
- The liberalization of Trade

Organizations will need to deal with different kinds of change. And responding to change must be an organizational act. Organizational change is many times more difficult to manage than on our own personal difficulties. Some organizations better at managing change than others; the good ones expect change to happen and are proactive in preparing themselves to respond.

The more an organization becomes flexible, the better it can respond to change. Complex changes require complex responses, which in turn require a great deal of organizational flexibility. Flexible organizing is a powerful new concept to replace the traditional organizational chart. Simply defined, flexible allocation is "getting the right people on the right projects at the right time". As circumstances change and new opportunities appear, the resources—people and equipment—available to a research organization are realigned to solve critical problems quickly. Managers must know the skills of each individual in the organization; then, they must determine which skills are required to solve a given problem and put the right people together on a project team. The flexible allocation method requires the organization to focus on a few projects and drive the right ones to completion (Volberda, 1992).

Today, organizations are in the big competitive change, which is frequent and radical; management requires high responsiveness and sufficient managerial capabilities. The flexibility in the organization has two functions or a function of the interaction of two sets of variables:

First, flexibility is a managerial task; in this connection, the concern is with the managerial capabilities that award the firm with flexibility; managers can respond at the right time in the right way.

Second, flexibility is an organization design task; the organization can react at the right time in the directed way. The concern is flexibility depends on the creation of the right conditions to foster flexibility with the controllability or changeability of the organization.

Finally, there are many alternative ways which enable organizations to initiate different kind of different flexible models for their success. However, there is not one best way to achieve the flexible organization form to achieve superior flexibility, which suggests the likelihood of equifinality; there are several equally good ways to match high variety and speed of managerial capabilities with an adequate design of organizational conditions, solving the constructive tension between development of capabilities and preservation of stability within the organization.

The study of flexible forms has not been discussed properly but the conceptual model and typology of alternative flexible forms may provide a useful guide for the study of effective organizational forms in the new world of hyper competition. (Volberda, 1996)

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The Impact of Flexible Automation on Business Strategy and Organizational Structure

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Management Information Systems

Sabina Dulic

Introduction

Before one can explain management information systems, the terms systems, information, and management must briefly be defined. A system is a combination or arrangement of parts to form an integrated whole. A system includes an orderly arrangement according to some common principles or rules. A system is a plan or method of doing something (Stair, Ralph M. (1996). Principles of Information Systems and Managerial Approach, 2nd ed page 74).

According to Rochester, Jack B. (1996). "Tools for Knowledge Workers." I Using Computers in Information. page 45) information is what is used in the act of informing or the state of being informed. Information includes knowledge acquired by some means. In the 1960s and 70s, it became necessary to formalize an educational approach to systems for business so that individuals and work groups and businesses who crossed boundaries in the various operations of business could have appropriate information.

Management is usually defined as planning, organizing, directing, and controlling the business operation. This definition, which evolved from the work of Henri Fayol in the early 1900s, defines what a manager does, but it is probably more appropriate to define what management is rather than what management does. Management is the process of allocating an organization's inputs, including human and economic resources, by planning, organizing, directing, and controlling for the purpose of producing goods or services desired by customers so that organizational objectives are accomplished. If management has knowledge of the planning, organizing, directing, and controlling of the business, its decisions can be made on the basis of facts, and decisions are more accurate and timely as a result.

Information systems are foundation for conducting business today. In many industries, survival and even existence without extensive use of IT is inconceivable and IT plays a critical role in increasing productivity. Although information technology has become more of a commodity, when coupled with complementary changes in organization and management, it can provide the foundation for new products, services, and ways of conducting business that provide firms with a strategic advantage. Information technology has become the largest or the second largest component of capital investment for firms in industrialized societies.

Information systems have become essential for helping organizations deal with changes in global economies and the business enterprise. Information systems provide firms with communication and analytic tools for conducting trade and managing businesses on a global scale. Information systems are the foundation of new knowledge-based products and services in knowledge economies and help firms manage their knowledge assets. Information systems make it possible for businesses to adopt more flexible arrangements of employees and management that can coordinate with other organizations across great distances. Organizations are trying to become more competitive and efficient by transforming themselves into digital firms where nearly all core business processes and relationships with customers, suppliers, and employees are digitally enabled. The Internet is bringing about a convergence of technologies that is further widening the use of information systems in business and transforming industries and business models.

An information system collects, stores, and disseminates information from an organization's environment and internal operations to support organizational functions and decision making, communication, coordination, control, analysis, and visualization. Information systems transform raw data into useful information through three basic activities: input, processing, and output. From a business perspective, an information system creates economic value for the firm as an organizational and management solution, based on information technology, to a challenge posed by the environment. The information system is part of a series of value-adding activities for acquiring, transforming, and distributing information to improve management decision making, enhance organizational performance, and, ultimately, increase firm profitability. (Laudon & Laudon, *Managing digital firm*, Fifth edition, 2006, page 103)



Figure 1: Retrieved from <http://emuonline.emu.edu.tr/demo/CSIT421/2002/chp1/chpt1-1bullettext.htm>

Information systems are rooted in organizations (Figure 1) as they are an outcome of organizational structure, culture, politics, workflows, and business processes. They are instruments for organizational change and value creation, making it possible to recast these organizational elements into new business models and redraw organizational boundaries. Managers are problem solvers who are responsible for analyzing the many challenges confronting organizations and for developing strategies and action plans. Information systems are one of their tools, delivering the information required for solutions. Information systems both reflect management decisions and serve as instruments for changing the management process. Information systems cannot make managers and organizations more effective unless they are accompanied by complementary assets such as new business processes, organizational culture, or management behavior. . (Laudon & Laudon, Managing digital firm, Fifth edition, 2006, page 140).

Information systems literacy requires an understanding of the organizational and management dimensions of information systems as well as the technical dimensions addressed by computer literacy. Information systems literacy draws on both technical and behavioral approaches to studying information systems. Both perspectives can be combined into a socio technical approach to systems.

There are five key management challenges in building and using information systems:

- (a) obtaining business value from information systems;
- (b) providing appropriate complementary assets to use information technology effectively;
- (c) understanding the system requirements of a global business environment;
- (d) creating an information technology infrastructure that is flexible enough to support changing organizational goals; and
- (e) designing systems that people can control, understand, and use in a socially and ethically responsible manner.

The Internet provides global connectivity and a flexible platform for the seamless flow of information across the enterprise and between the firm and its customers and suppliers. It is the primary technology infrastructure for electronic commerce, electronic business, and the emerging digital firm. In electronic commerce (e-commerce), businesses can exchange electronic purchase and sale transactions with each other and with individual customers. Electronic business (e-business) uses Internet and other digital technology for organizational communication and coordination, collaboration with business partners, and the management of the firm, as well as for electronic commerce transactions. Digital firms use Internet technology intensively to manage their internal processes and relationships with customers, suppliers, and other external entities. E-government uses the Internet and intranets to improve delivery of government services, make internal operations more efficient, and empower citizens to network electronically with other citizens.

To summarize the above we can say that "MIS" is a planned system of the collecting, processing, storing and disseminating data in the form of information needed to carry out the functions of management. According to Phillip Kotler "A management information system consists of people equipment, and procedures to gather, sort, analyse, evaluate, and distribute needed, timely, and accurate information to decision makers." (Kotler, Phillip and Keller, Kevin Lane; Marketing Management, Pearson Education, 12 Ed, 2006 pg 193).

Types of information systems

There are four major types of information systems in contemporary organizations (Figure 2). Operational-level systems are transaction processing systems (TPS), such as payroll or order processing, that track the flow of the daily routine transactions that are necessary to conduct business.

Management-level systems (MIS and DSS) provide the management control level with reports and access to the organization's current performance and historical records. Most management information systems (MIS) reports condense information from TPS and are not highly analytical.

Decision-support systems (DSS) support management decisions when these decisions are unique, rapidly changing, and not specified easily in advance. They have more advanced analytical models and data analysis capabilities than MIS and often draw on information from external as well as internal sources. Executive support systems (ESS) support the strategic level by providing data of greatest importance to senior management decision makers, often in the form of graphs and charts delivered via portals. They have limited analytical capabilities but can draw on sophisticated graphics software and many sources of internal and external information. (Shelly, Cashman and Vermaat, *Discovering Computers 2000 – Concepts for a Connected World* ; Course Technology 1999, page 17).

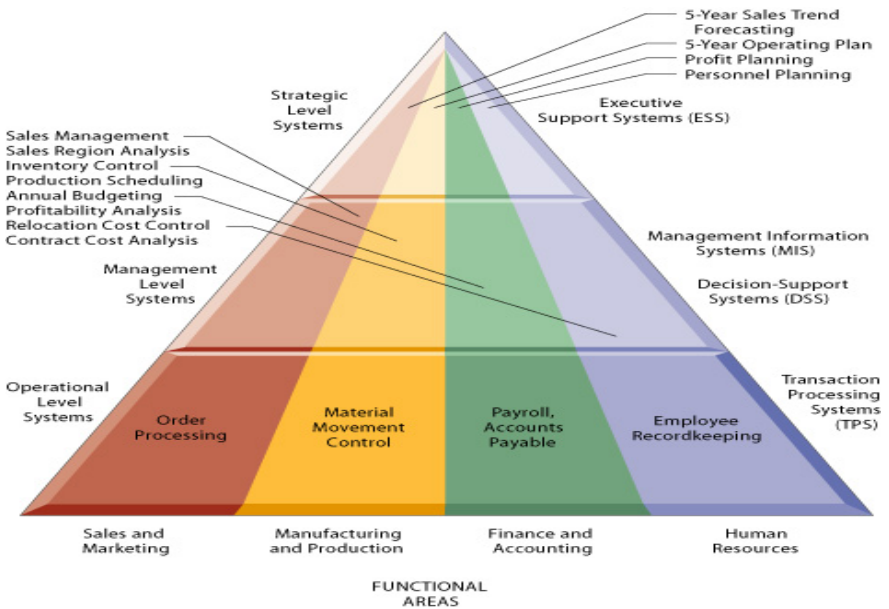


Figure 2 (Laudon & Laudon, *Managing digital firm*, Fifth edition, 2006, pg 103)

The various types of systems in the organization exchange data with one another (Figure 3). TPS are a major source of data for other systems, especially for MIS and DSS. ESS receives data from lower-level systems, i.e. MIS and DSS. Today's business environment calls for more integration among systems than in the past, but such integration is not easy to achieve.

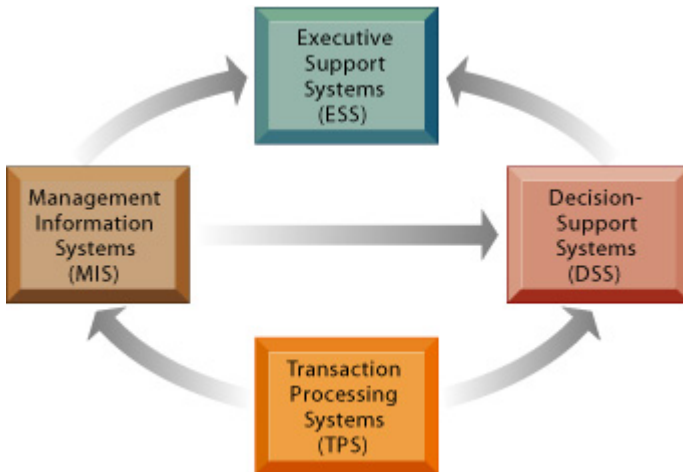


Figure 3 (Laudon & Laudon, *Managing digital firm*, Fifth edition, 2006, pg 108)

At each level of the organization information systems support the major functional areas of the business, as shown on the Figure 2. Sales and marketing systems help the firm identify customers for the firm's products or services, develop products and services to meet customers' needs, promote the products and services, sell the products and services, and provide ongoing customer support. Manufacturing and production systems deal with the planning, development, and production of products and services, and controlling the flow of production. Finance and accounting systems keep track of the firm's financial assets and fund flows. Human resources systems maintain employee records; track employee skills, job performance, and training; and support planning for employee compensation and career development. (Alter S., *Information Systems: a management perspective*, second edition, Benjamin Cummings, 1996, p 226).

Business processes refer to the manner in which work activities are organized, coordinated, and focused to produce a specific business result.

They also represent unique ways in which organizations coordinate work, information, and knowledge and the ways in which management chooses to coordinate work. Managers need to pay attention to business processes because they determine how well the organization can execute, and thus are a potential source of strategic success or failure. Although each of the major business functions has its own set of business processes, many other business processes are cross-functional, such as order fulfillment. Information systems can help organizations achieve great efficiencies by automating parts of these processes or by helping organizations rethink and streamline them. Firms can become more flexible and efficient by coordinating and integrating their business processes to improve management of resources and customer service.

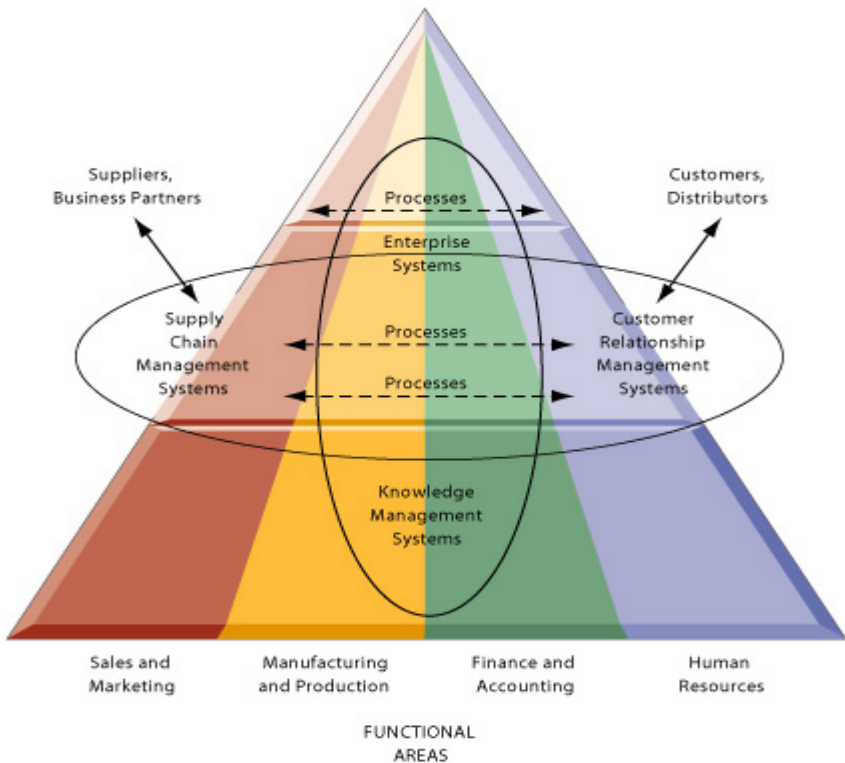


Figure 4 (Alter, S., Information Systems: a management perspective, Benjamin Cummings, 1996, p 96)

Enterprise applications, such as enterprise systems, supply chain management systems, customer relationship management systems, and knowledge management systems, are designed to support organization-wide process coordination and integration so that the organization can operate more efficiently (Figure 4). They span multiple functions and business processes and may be tied to the business processes of other organizations. Enterprise systems integrate the key internal business processes of a firm into a single software system so that information can flow throughout the organization, improving coordination, efficiency, and decision making. Supply chain management systems help the firm manage its relationship with suppliers to optimize the planning, sourcing, manufacturing, and delivery of products and services. Customer relationship management uses information systems to coordinate all of the business processes surrounding the firm's interactions with its customers to optimize firm revenue and customer satisfaction. Knowledge management systems enable firms to optimize the creation, sharing, distribution, of knowledge to improve business processes and management decisions.

The array of information systems available to businesses can help businesses achieve higher levels of productivity and financial worth. Management challenges include the tension between building systems that both serve specific interests in the firm but that also can be integrated to provide organization-wide information, the need for management and employee training to use systems properly, and the need to establish priorities on which systems most merit corporate attention and funding. Solutions include inventorying the firm's information systems to establish organization-wide information needs, employee and management training, and establishing a system for accounting for the costs of information systems and managing demand for them <http://www.ii.metu.edu.tr/~ion501/demo/23.html>).

Information systems and management

Managers need to understand certain essential features of organizations to build and use information systems successfully. All modern organizations are hierarchical, specialized, and impartial. They use explicit routines to maximize efficiency. All organizations have their own cultures and politics arising from differences in interest groups. Organizations differ in goals, groups served, social roles, leadership styles, incentives, surrounding environments, and types of tasks performed. These differences create varying types of organizational structures, and they also help explain differences in organizations' use of information systems.

Information systems and the organizations in which they are used interact with and influence each other. The introduction of a new information system will affect organizational structure, goals, work design, values, competition between interest groups, decision making, and day-to-day behavior. At the same time, information systems must be designed to serve the needs of important organizational groups and will be shaped by the organization's structure, tasks, goals, culture, politics, and management. (Banerjee, U. K., & Sachdeva, R. K. (1995). *Management information system: A new frame work*. Page 98) Information technology can reduce transaction and agency costs, and such changes have been accentuated in organizations using the Internet. The information systems department is the formal organizational unit that is responsible for the organization's information systems function. Organizational characteristics and managerial decisions determine the role this group will actually play.

Several different models of what managers actually do in organizations show how information systems can be used for managerial support. Early classical models of managerial activities stress the functions of planning, organizing, coordinating, deciding, and controlling. Contemporary research looking at the actual behavior of managers has found that managers' real activities are highly fragmented, variegated, and brief in duration, with managers moving rapidly and intensely from one issue to another. Managers spend considerable time pursuing personal agendas and goals, and contemporary managers shy away from making grand, sweeping policy decisions. (Ahituv, N., Neumann, S., & Riley, H. N. (1994). *Principles of information systems for management 4th ed*, page 74)

Decision making can also take place at the individual or group level. Individual model of decision making assume that human beings can rationally choose alternatives and consequences based on the priority of their objectives and goals. Organizational models of decision making illustrate that real decision making in organizations takes place in arena where many psychological, political, and bureaucratic forces are at work.

According to (Davis, G.B., & Olson, M. H. 1985. *Management information systems: Conceptual foundations, structure, and development*. New York: McGraw-Hill. Page 67) information technology provides new tools for managers to carry out both their traditional and newer roles, enabling them to monitor, plan, and forecast with more precision and speed than ever before and to respond more rapidly to the changing business environment. Information systems have been most helpful to managers by providing support for their roles in disseminating information, providing liaisons

between organizational levels, and allocating resources. However, some managerial roles cannot be supported by information systems, and information systems are less successful at supporting unstructured decisions.

Businesses can use strategic information systems to gain an edge over competitors. Such systems change organizations' goals, business processes, products, services, or environmental relationships, driving them into new forms of behavior.

Information systems can be used to support strategy at the business, firm, and industry levels. At the business level of strategy, information systems can be used to help firms become the low-cost producers, differentiate products and services, or serve new markets. Information systems can also be used to lock in customers and suppliers using efficient customer response and supply chain management applications. Value chain analysis is useful at the business level to highlight specific activities in the business where information systems are most likely to have a strategic impact.

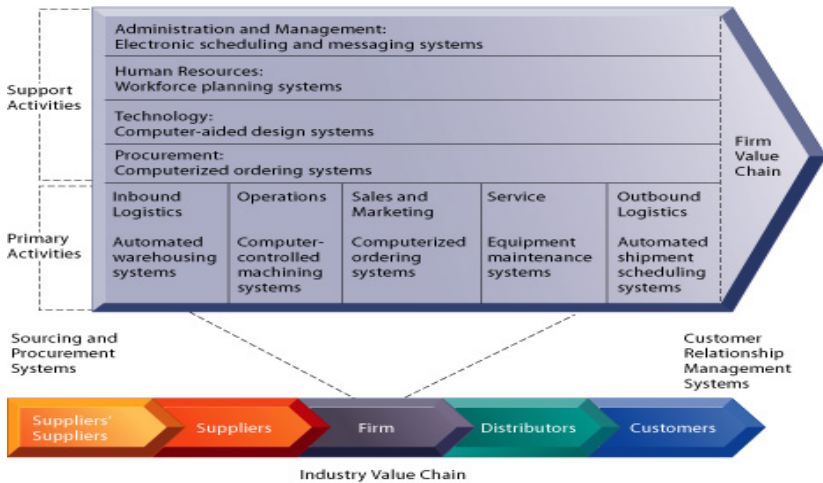


Figure 5 (Retrieved from www.immr.org/1/main.htm)

At the firm level (Figure 5), information systems can be used to achieve new efficiencies or to enhance services by tying together the operations of disparate business units so that they can function as a whole or promote the sharing of knowledge across business units.

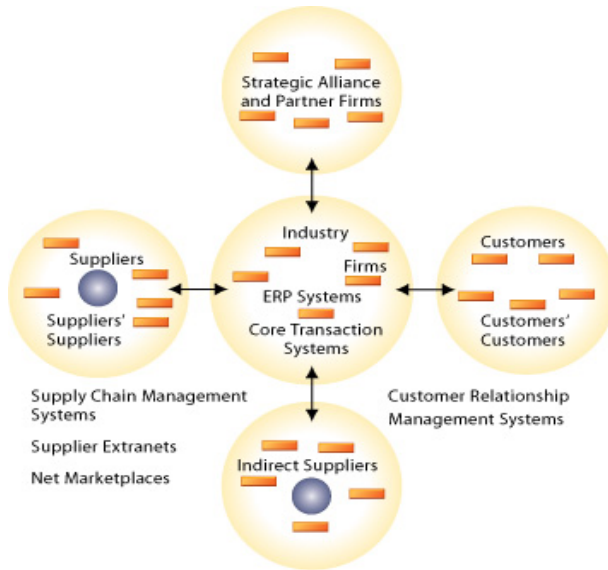


Figure 6 (Laudon & Laudon, *Managing digital firm*, Fifth edition, 2006, pg 228)

At the industry level (Figure 6), systems can promote competitive advantage by facilitating cooperation with other firms in the industry, creating consortiums or communities for sharing information, exchanging transactions, or coordinating activities. The competitive forces model, information partnerships, business ecosystems, and network economics are useful concepts for identifying strategic opportunities for systems at the industry level.

Based on Simon, H. A. (1977). *The new science of management decision*. New Jersey: Prentice-Hall. Page 46, information systems are closely intertwined with an organization's structure, culture, and business processes. New systems disrupt established patterns of work and power relationships, so there is often considerable resistance to them when they are introduced.

Implementing strategic systems often requires extensive organizational change and a transition from one socio-technical level to another. Such changes are called strategic transitions and are often difficult and painful to achieve. Moreover, not all strategic systems are profitable, and they can be expensive to build. Many strategic information systems are easily copied by

other firms so that strategic advantage is not always sustainable. The complex relationship between information systems, organizational performance, and decision making must be carefully managed. A strategic system analysis is helpful.

Management information system and Internet

The Internet is rapidly becoming the infrastructure of choice for electronic commerce and electronic business because it provides a universal and easy-to-use set of technologies and technology standards that can be adopted by all organizations, no matter which computer system or information technology platform they use. Internet technology provides a much lower cost and easier to use alternative for coordination activities than proprietary networks. Companies can use Internet technology to radically reduce their transaction and agency costs.

The Internet radically reduces the cost of creating, sending, and storing information while making that information more widely available. Information is not limited to traditional physical methods of delivery. Customers can find out about products on their own on the Web and buy directly from product suppliers instead of using intermediaries such as retail stores. This unbundling of information from traditional value chain channels is having a disruptive effect on old business models, and it is creating new business models as well. Some of the traditional channels for exchanging product information have become unnecessary or uneconomical, and business models based on the coupling of information with products and services may no longer be necessary. By using the Internet and other networks for electronic commerce, organizations in some industries can exchange purchase and sale transactions directly with customers and suppliers, eliminating inefficient intermediaries. (Martin, J.(1990). Telecommunications and the computer (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall. Page 88).

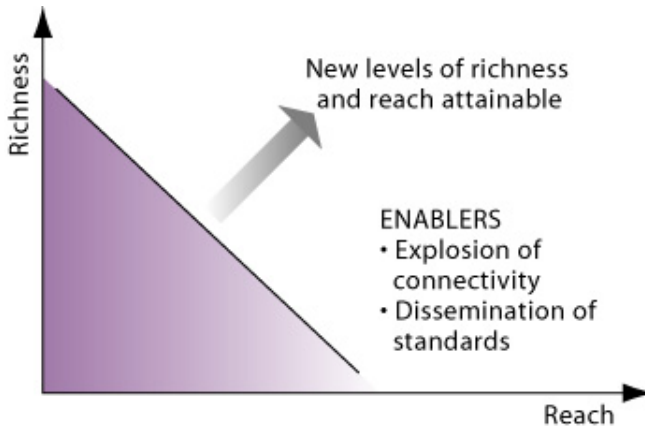


Figure 7 Laudon & Laudon, *Managing digital firm*, Fifth edition, 2006, pg 303

The Internet shrinks information asymmetry and has transformed the relationship between information richness and reaches (Figure 7). Using the Internet and Web multimedia capabilities, companies can quickly and inexpensively provide detailed product information and detailed information specific to each customer to very large numbers of people simultaneously. The Internet can help companies create and capture profit in new ways by adding extra value to existing products and services or by providing the foundation for new products and services. Many different business models for electronic commerce on the Internet have emerged, including virtual storefronts, information brokers, transaction brokers, Net marketplaces, content providers, online service providers, virtual communities, and portals.

Based on Chaudhury, Abijit; Jean-Pierre Kuilboer (2002). *e-Business and e-Commerce Infrastructure*. McGraw-Hill. Page 77, electronic commerce is the process of buying and selling goods electronically with computerized business transactions using the Internet or other digital network technology. It includes marketing, customer support, delivery, and payment. The three major types of electronic commerce are business-to-consumer (B2C), business-to-business (B2B), and consumer-to-consumer (C2C). Another way of classifying electronic commerce transactions is in terms of the participants' physical connection to the Web. Conventional e-commerce transactions, which take place over wired networks, can be distinguished from mobile commerce, or m-commerce, which is the purchase of goods and

services using handheld wireless devices. The Internet provides a universally available set of technologies for electronic commerce that can be used to create new channels for marketing, sales, and customer support and to eliminate intermediaries in buy-and-sell transactions. Interactive capabilities on the Web can be used to build closer relationships with customers in marketing and customer support. Firms can use various Web personalization technologies to deliver Web pages with content geared to the specific interests of each user, including technologies to deliver personalized information and ads through m-commerce channels. Companies can also reduce costs and improve customer service by using Web sites, as well as e-mail and telephone access to customer service representatives, to provide helpful information.

B2B e-commerce generates efficiencies by enabling companies to locate suppliers, solicit bids, place orders, and track shipments in transit electronically. Businesses can use their own Web sites to sell to other businesses or use Net marketplaces or private industrial networks. Net marketplaces provide a single digital marketplace based on Internet technology for many buyers and sellers. Net marketplaces can be differentiated by whether they sell direct or indirect goods, support spot or long term purchasing, or serve vertical or horizontal markets. Private industrial networks link a firm with its suppliers and other strategic business partners to develop highly efficient supply chains and to respond quickly to customer demands. The principal electronic payment systems for electronic commerce are digital credit card systems, digital wallets, accumulated balance digital payment systems, stored value payment systems, digital cash, peer-to-peer payment systems, digital checking, and electronic billing presentment and payment systems. Accumulated balance systems, stored value systems (including smart cards), and digital cash are useful for small micropayments. (Nissanoff, Daniel (2006). *FutureShop: How the New Auction Culture Will Revolutionize the Way We Buy, Sell and Get the Things We Really Want* The Penguin Press page 206)

Private, internal corporate networks called intranets can be created using Internet connectivity standards. Extranets are private intranets that are extended to selected organizations or individuals outside the firm. Intranets and extranets are forming the underpinnings of electronic business by providing a low-cost technology that can run on almost any computing platform. Organizations can use intranets to create collaboration environments for coordinating work and information sharing, and to make information flow between different functional areas of the firm. Intranets

also provide a low-cost alternative for improving coordination of cross-functional business processes within the organization.

Extranets help coordinate business processes shared with customers, suppliers, and other external organizations. Collaborative commerce builds on extranets to enable multiple organizations to collaboratively design, develop, build, move, and manage products through their life cycles. A firm engaged in collaborative commerce with its suppliers and customers can achieve new efficiencies by reducing product design cycles, minimizing excess inventory, forecasting demand, and keeping partners and customers informed. Many new business models based on the Internet have not yet found proven ways to generate profits or reduce costs. (Seybold, Pat (2001). *Customers.com*. Crown Business Books (Random House). Page 103) Digitally enabling a firm for electronic commerce and electronic business requires far-reaching organizational change, including redesign of business processes; recasting relationships with customers, suppliers, and other business partners; and new roles for employees. Channel conflicts may erupt as the firm turns to the Internet as an alternative outlet for sales. Security, privacy, and legal issues pose additional electronic commerce challenges. Before embracing e-commerce and e-business, firms should understand exactly how Internet technology provides value to the business and relates to their overall business strategy. They should anticipate making organizational changes, including changing business processes and developing a plan for managing channel conflict. Finally, they will need corporate policies and tools for promoting security and privacy within an e-business environment.

Management information systems and ethics

Information technology has raised new possibilities for behavior for which laws and rules of acceptable conduct have not yet been developed. Information technology is introducing changes that create new ethical issues for societies to debate and resolve. Increasing computing power, storage, and networking capabilities—including the Internet—can expand the reach of individual and organizational actions and magnify their impact. The ease and anonymity with which information can be communicated, copied, and manipulated in online environments are challenging traditional rules of right and wrong behavior. Ethical, social, and political issues are closely related. Saia, R. (1998). "What Would You Do?: Ethical Dilemmas and Ethical Decisions," *Computerworld*, March 16, pp. 64--65. Ethical issues confront individuals who must choose a course of action, often in a situation in which two or more ethical principles are in conflict (a dilemma). Social issues

spring from ethical issues as societies develop expectations in individuals about the correct course of action. Political issues spring from social conflict and are mainly concerned with using laws that prescribe behavior to create situations in which individuals behave correctly.

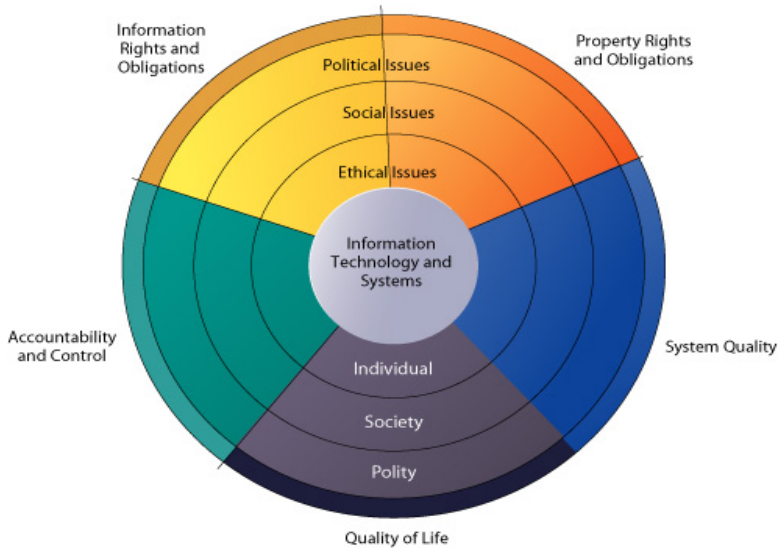


Figure 8 (Retrieved from www.noblis.org/SystemsEngineering.htm)

The moral dimensions of information systems centers around:

1. Individual information rights. Spell out corporate privacy and due process policies.
2. Property rights. Clarify how the corporation will treat property rights of software owners.
3. System quality. Identify methodologies and quality standards to be achieved.
4. Quality of life. Identify corporate policies on family, computer crime, decision making, vulnerability, job loss, and health risks.
5. Accountability and control. Clarify who is responsible and accountable for corporate information.

Ethical principles to judge conduct are derived independently from several cultural, religious, and intellectual traditions and include the Golden Rule, Immanuel Kant's Categorical Imperative, Descartes' rule of change, the Utilitarian Principle, the Risk Aversion Principle, and the ethical "no free lunch" rule. These principles should be used in conjunction with an ethical analysis to guide decision making. The ethical analysis involves identifying the facts, values, stakeholders, options, and consequences of actions. Once completed, you can consider which ethical principle to apply to a situation to arrive at a judgment. (Pastore, R. (1993). "Ethical Gray Matters," CIO, February, pp. 58--62.)

Contemporary information systems technology, including Internet technology, challenges traditional regimens for protecting individual privacy and intellectual property. Data storage and data analysis technology enables companies to easily gather personal data about individuals from many different sources and analyze these data to create detailed electronic profiles about individuals and their behaviors. Data flowing over the Internet can be monitored at many points. The activities of Web site visitors can be closely tracked using cookies and other Web monitoring tools. Not all Web sites have strong privacy protection policies, and they do not always allow for informed consent regarding the use of personal information. The online industry prefers self-regulation to the U.S. government tightening privacy protection legislation.

Traditional copyright laws are insufficient to protect against software piracy because digital material can be copied so easily. Internet technology also makes other intellectual property even more difficult to protect because digital material can be copied easily and transmitted to many different locations simultaneously over the Net. Web pages can be constructed easily using pieces of content from other Web sites without permission. Although computer systems have been sources of efficiency and wealth, they have some negative impacts. Errors in large computer systems are impossible to eradicate totally. Computer errors can cause serious harm to individuals and organizations, and existing laws and social practices are often unable to establish liability and accountability for these problems. Less serious errors are often attributable to poor data quality, which can cause disruptions and losses for businesses. Jobs can be lost when computers replace workers or tasks become unnecessary in reengineered business processes. The ability to own and use a computer may be exacerbating socioeconomic disparities among different racial groups and social classes. Widespread use of computers increases opportunities for computer crime and computer abuse. Computers can also create health problems such as repetitive stress injury, computer vision syndrome, and techno stress. (Frankena, W.K. (1973). Ethics, Englewood Cliffs, NJ: Prentice-Hall. Page 113)

The main management challenges posed by the ethical and social impact of information systems are the need to understand the moral risks of new technology and the difficulty of establishing corporate ethics policies that address information systems issues. For each of the five moral dimensions of information systems, corporations should develop a corporate ethics policy statement to guide individuals and to encourage appropriate decision making.

Conclusion

A management information system (MIS) is a system or process that provides the information necessary to manage an organization effectively. MIS and the information it generates are generally considered essential components of prudent and reasonable business decisions. MIS should have a clearly defined framework of guidelines, policies or practices, standards, and procedures for the organization. These should be followed throughout the institution in the development, maintenance, and use of all MIS.

The development of Management Information System (MIS) enables better project formulation with clearly stated objectives and realistic operational targets. MIS creates a need for proper record keeping and data management at the field. This requires updating and supervising field staff on record keeping, data management, reporting and use of indicators. MIS is not complete without feedback at each level of reporting. Critical Value for the indicators would vary from country to country depending upon the local situation. MIS enables further comparative business decisions and policy making.

MIS is viewed and used at many levels by management. It should be supportive of the institution's longer term strategic goals and objectives. Because MIS supplies decision makers with facts, it supports and enhances the overall decision making process. MIS also enhances job performance throughout an institution. At the most senior levels, it provides the data and information to help the board and management make strategic decisions. At other levels, MIS provides the means through which the institution's activities are monitored and information is distributed to management, employees, and customers. Effective MIS should ensure the appropriate presentation formats and time frames required by operations and senior management are met. MIS can be maintained and developed by either manual or automated systems or a combination of both. It should always be sufficient to meet an institution's unique business goals and objectives. The effective deliveries of an institution's products and services are supported by the MIS. These systems should be accessible and useable at all appropriate levels of the organization.

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Caos Management

Hatice Celik

Introduction

Around midcentury scientific management moved from the factory floor into the boardroom. Data collection and mathematical analysis became the basis for strategic planning and decision making. The mainframe computer was the driver, supporting exciting new techniques like linear programming and statistical analysis. Back in the factory this same revolution led to the rise of modeling techniques like operations research and critical path scheduling. As the century progress the computers, and the models, got bigger. Massive data collection systems evolved. New analytical techniques emerged, that were unthinkable without the computer. However, while complex, these techniques were still mostly linear in nature. All along a fundamental assumption was made that is becoming increasingly invalid. This is the assumption of predictability, especially predictability based on linearity. Predictability is the external counterpart to internal control. But with the rise of the cognitive enterprise, and driven by new information technologies, has come chaos. The future is often unpredictable, driven by powerful nonlinear forces. Detailed planning or modeling is useful, but only the starting point. Ongoing monitoring and management of information transactions is required. Unlike a manufacturing facility, there is no business as usual in an issue driven environment. Everyday is different. http://www.bydesign.com/powervision/Mathematics_Philosophy_Science/Chaosman.html, 25.12.08).

Chaos has acquired a new respectability in twenty-first-century management circles. It is not, strictly speaking, a new concept. Tom Peter's text *Thriving on Chaos: Handbook for a Management Revolution*, first published in 1988, was innovative for its time. Most managers in the 1980s still believed that chaos was something to be avoided at all costs and the sign of a cluttered desk was indicative of a cluttered (ergo unproductive) mind. Today people are more apt to quote Einstein, whose pithy retort to the above comment was to ask, what then did an empty desktop represent? So what is chaos and how has it been transmuted from the ugly stepsister to Cinderella, the belle of the ball? The ordered working world has disappeared along with the electric

typewriter and carefully composed letters delivered by first-class post. Chaos is here to stay and if businesses want to survive in this new fast-paced world, then chaos is something they will have to learn to love, and to work with. That this is possible, or even desirable, can be demonstrated by a journey no farther than your computer keyboard. Type in the words: "chaos management" as a search term. What did you find? More importantly, how did you find it? If you are like over 50 percent of the world's internet users you entered your search term into Google, a company which epitomizes an up-to-the-minute chaos management style. Practical implications - Provides strategic insights and practical thinking that have influenced some of the world's leading..." (Googling out of control: Can Google's chaos management style ensure continuing success? Preview Strategic Direction, Jun2007, Vol. 23 Issue 8, p25-27). This paper will present why we do need chaos management strategies and how to apply it practically in enterprises and organizations.

What Is Chaos?

Chaos is defined as "the irregular, unpredictable behavior of deterministic, non-linear dynamical systems." Chaos is fast replacing bureaucracy as the new science of organizations. The relevant generalization here is that we live in an uncertain and turbulent environment and, even with massive amounts of available information, it has become increasingly difficult for us to choose appropriate organizational survival behaviors. No one seems to disagree with the assertion that human systems exhibit chaotic behavior. However, management theorists have yet to acknowledge that the deterministic element of chaos can be beneficial in forming viable survival strategies. They have focused almost exclusively on preparing the organization to react quickly to changes in the external environment. (<http://www.horsenseatwork.com/psl/pages/chaosdefined.html>,25.01.09) The chaos has positive and negative sides. Chaos management examine all aspects of chaos.

Positive Side of Chaos

The new theory of organizations is how to create what is called "edge of chaos" patterns of organizing. In this approach individuals and units are given more flexibility and local control and terms are expected to self-organize under the assumption that it is possible to achieve greater adaptability to the customer demands and other environmental shifts and flows. Running a corporation that survives and thrives at the edge of chaos has become almost a full-time job. Mergers and acquisitions are creating

strange bedfellows, the market is becoming more sophisticated, and the very nature of our businesses is shifting. Some leaders are questioning their abilities to remain competitive in a market where disruption is the norm (<http://www.horsesenseatwork.com/psl/pages/chaosdefined.html>, 25.01.09).

Negative Side of Chaos

In its popular usage, chaos is a negative. People say "I hate chaos, let's get organized." While the theorists give us fractal, strange attractor, and edge of chaos metaphors, we have to work in the chaos soup. Of concern here, is how does it feel to stare into the abyss, or worse to work in a chaos abyss? One definition of Chaos Narrative comes from Frank (1995) "It is the story we tell when we are unable to tell a story; it is the "anti-narrative of time without sequence, telling without mediation, and speaking about oneself without being fully able to reflect on oneself." There is an obvious need to balance theories of chaos management with how people experience chaos as the void of buzzing confusion and being out of control (<http://www.horsesenseatwork.com/psl/pages/chaosdefined.html>,25.01.0).

What Is Chaos Theory?

Chaos theory, which is the study of nonlinear dynamic systems, promises to be a useful conceptual framework that reconciles the essential unpredictability of industries with the emergence of distinctive patterns. Although chaos theory was originally developed in the context of the physical sciences and amongst others have noted that social, ecological, and economic systems also tend to be characterized by nonlinear relationships and complex interactions that evolve dynamically over time. This recognition has led to a surge of interest in applying chaos theory to a number of fields, including ecology, medicine international relations, and economics. Despite the apparent applicability of chaos theory to the field of business strategy there has been surprisingly little work in this area.

One of the major achievements of chaos theory is its ability to demonstrate how a simple set of deterministic relationships can produce patterned yet unpredictable outcomes. Chaotic systems never return to the same exact state, yet the outcomes are bounded and create patterns that embody mathematical constants. It is the promise of finding a fundamental order and structure behind complex events that probably explains the great interest chaos theory has generated in so many fields." For instance, chaos theory provides a useful theoretical framework for understanding the dynamic evolution of industries

and the complex interactions among industry actors (Strategic Management Journal, Vol. 15, 167-178(1994) Chaos Theory and Strategy :Theory, Application and Manageral Implications, David Levy, Department of Management, University of Boston, Massachusetts, U.S.A.).

What Is Complexity Theory?

It states that "*critically interacting components self-organize to form potentially evolving structures exhibiting a hierarchy of emergent system properties.*"(Lucas: <http://www.calresco.org/sos/sosfaq.htm#1.1>) A system normally has two choices of operational modes: stability or instability. In the stable mode, a disturbance will eventually converge back toward the system's initial conditions. In the unstable mode, a disturbance will cause a progressive divergence away from initial conditions. Self-organizing systems operate in a third mode - between stability and instability - where optimal system performance can be achieved in a turbulent environment. This transition zone is known as *the edge of chaos*, "a region of bounded instability" in which there is "unpredictability of specific behavior within a predictable general structure of behavior(<http://www.horsesenseatwork.com/psl/pages/chaosdefined.html>).

The study of non-linear dynamics has led to the development of theories such as chaos and complexity. These are now being applied to the study of organizations. The terms chaos, complexity, complex adaptive systems and complexity science are increasingly found in the strategy and organizational development and change literatures. It has been applied to social systems and offered as a dynamic systems approach to the study of strategy. Complexity theory deals with the nature of emergence, innovation, learning and adaption . It has developed along an interdisciplinary path, taking insights and inputs from mathematics, biology, computing and economics. It can offer valuable insights into management and strategic i issues (Complexity Theory and Strategic Change: an Empirically Informed Critique.Preview By: Houchin, K.; MacLean, D.. British Journal of Management, Jun2005, Vol. 16 Issue 2, p149-166).

Complexity is not a surface noise of the real, but is the very principle of the real. Uncertainty, indeterminism, randomness and contradictions occur, not as residues to be eliminated by explanation, but as noneliminatable ingredients of our perception/ cognition of the real.Complexity and Management (Stacey et al., 2000),where, among other things, also the

concept of transformative teleology was developed. Clearly chaos management inspired by modelled results leading to concepts such as attractors, edge of chaos, etc. were after some years of fashion replaced by new ideas that centre around concepts and theory-making which relate to evolutionary development of systems (Systems science and complexity: some proposals for future development. Preview By: Leleur, Steen. Systems Research & Behavioral Science, Jan/Feb2008, Vol. 25 Issue 1, p67-79, 13p).

Chaos Management

Chaos management is about "issue storms"....swirling, turbulent flows of information that blow up when people try to deal with complex issues. Our world is increasingly dominated by issue storms. Our lives are issue driven and chaotic. Our interaction with others is complex and unpredictable. It's the downside of information technology. Because of today's powerful technology, issues tend to mushroom out of control. They spread rapidly, consuming precious cognitive resources in an uncoordinated, confused way. When this happens management quickly loses its ability to manage. When ten or twenty issue storms are raging out of control in an organization the result is chaos. Slowly but surely the copier, the fax, and of course the computer, have made the pace of information transfer over 10,000 times faster than it was just a few decades ago. No wonder things get out of control so easily. The power of this technology is the source of the problem, bringing with it the issue storm and the need for new methods of management. (http://www.bydesign.com/powervision/Mathematics_Philosophy_Science/Chaosman.html, 25.12.08)

“The translation of Chaos Theory into management practice is, at best, a loose analogy that has been built upon three generalizations of scientific concepts: Chaos, Complexity Theory, and Complex Adaptive Systems. It has always been somewhat problematic to apply a scientific theory - one that was intended to explain natural phenomena - to explain the affairs of human organizational systems. The relatively new science of chaos is one such application that has made inroads into the realm of management and organizational behavior.” (<http://www.horsesenseatwork.com/psl/pages/chaosdefined.html>, 10.12.08)

Applications Of Chaos Management

Although chaos theory was originally developed in the context of the physical sciences Radzicki (1990) and Butler (1990) amongst others have noted that social, ecological, and economic systems also tend to be characterized by nonlinear relationships and complex interactions that evolve dynamically over time. This recognition has led to a surge of interest in applying chaos theory to a number of fields, including ecology (Kauffman, 1991), medicine (Goldberger, Rigney and West, 1990) international relations (Mayer-Kress and Grossman, 1989), and economics (Baumol and Benhabib, 1989; Kelsey, 1988). Despite the apparent applicability of chaos theory to the field of business strategy, there has been surprisingly little work in this area. It is possible that the application of chaos theory to social sciences has been constrained by the fact that it has developed in relation to physical systems, without taking into account fundamental differences between physical and social science (Strategic Management Journal, Vol. 15, 167-178(1994) , Chaos Theory and Strategy :Theory, Application and Manageral Implications, David Levy,Department of Management, University of Massachusetts – Boston, Massachusetts, U.S.A.).

Chaos Management In Workplace

Companies that manage in a chaotic condition may resolve such problem through a successful management that involves a rapid re-imposition of order. There are several measures, which include sharing and avoiding favoritism, should be adapted to avoid chaos. Chaotic operations sound like a recipe for loss, and 'strategy as structured chaos' the sort of trendy, perfidious concept that gives consultants a bad name. However inventor Shona Brown has applied the ideas at high-profit, fast-growing Google. Accordingly can you get ahead with a freer flow of intention and invention? No doubt, anarchic events are not totally chaos. Therefore,"organisations achieve constructive chaos by:

- minimal structure and rules: maintaining enough to keep people focused, but not constraining or narrowing vision.
- disturbing routines: challenging people whenever they fall into familiar rhythms or seem too comfortable.
- allowing enough time: letting different projects find their own rhythm, not forcing the pace.
- knowledge sharing: incentivizing people to tell and ask others what they're doing, as answers may lie next door.

- avoiding favouritism: not allowing one division (even if most profitable) or individual (even if brilliant) to overshadow others in conversation or resource allocation.
- overall vision and goal: ensuring people keep in mind the ultimate need for return on investment, obey the law and keep to basic corporate ethics.” (Googling out of control: Can Google's chaos management style ensure continuing success?Preview Strategic Direction, Jun2007, Vol. 23 Issue 8, p25-27)

Structured chaos demands more of managers than normal, more rigid structures, and is worth that extra effort when:

- technologies advance and go obsolete quickly what makes money now could be copied and commoditised soon, so you need to get everyone thinking of new activities that might make money next.
- one basic idea has a lot of applications you have a unique product, process or client base, but have to find the best way to make it profitable, before someone else does - people need freedom to think through and try out the full range of applications, competing with other groups.
- people are already profit-oriented team leaders and core members want to make money, not just do something ingenious, so can be trusted to keep thinking of financial return even when immersed in clever technology or marketing games - can often be achieved by letting them manage own budget, or tying pay to group profit
- there's a solid core product taking risks is possible because there's a steady flow of profit from at least one operation - and necessary because it's not clear how long that profit margin will stay high.

Some companies appear to thrive in chaotic conditions by replicating them internally; but successful 'chaos management' isn't always as disorganised as it seems, and involves swift re-imposition of order when necessary direction becomes clear. As big innovations disrupt profit, relations among divisions and power relations among individuals, most companies have limited patience with them.

Cases where potential breakthroughs were missed due to premature reaction against discomforts of chaos:

- Knight-Ridder: abandoned '80s experiments with TV and stuck to newspapers - ceding cable lead to more patient rivals like CNN, CNBC.

Despite proven ability to attract creative minds and get new ideas flowing from them, chaotic firms like Google haven't yet shown they can get a second big innovation that follows on and doesn't undermine the first; and they've hit problems of:

- too much product proliferation so many new ideas that neither company nor customers can keep track of them, and many get stuck at prototype or user trial stage, giving rivals a chance to copy and capture them.
- not knowing when they've got a new winner past 'management on the edge' relaxed the rules until a new idea emerged - then tightened structures, focused resources around it for quick market launch; effort stays too dispersed, and momentum is lost if chaos reigns too long.
- changing the formula unnecessarily 'new market, new mindset' approach can squander benefits of what's already known and done; eg for Internet video, Google modified successful search model to go for hosting of content, by acquiring YouTube; rivals like blinkx were able to move in and grab video advertising with a neutral search solution it can sell to media groups, who view YouTube as a competitor.
- neglecting the core product excessively wide search for alternatives also risks draining funds and management attention away from core activity that supports all the chaos; eg Marconi fatally ran down traditional engineering base in quest for reinvention as telecoms giant.
- dissolving into warring factions competition among units is vital to making them work for musthave ideas and pursue ROI; but if too unregulated it stifles cooperation and knowledge-sharing, encouraging teams to knock the others down rather than build the company up.

Controlling to chaos in workplace may lead you to be more successful than before. Moving to a wholly new environment causes disorientation -for companies as much as people. Successful shifts from one core business to another, by eg IBM, Kodak, involve giving free rein for new operating units

while they find their feet, but strong direction at the top, with management ready to:

- resolve conflicts: stop units squabbling over resources and sabotaging others' efforts to advance own designs.
- ask awkward questions: cut through new ideas' dazzle to ask who needs it, how's it better, how will it make money?
- talk to customers: reality check in-house visions by asking panels of users (or your kids) what they think.
- kill bad projects: stop people chasing dreams that fail these tests, re-assigning them to something more useful.
- state of flux needn't last forever: if and when a clear product vision or market direction emerges from chaos, be prepared to replace it with disciplined, unidirectional push, as did Nokia when it ditched 90% of revenue streams to focus on mobile.

Paying for diversity one of the strategies of chaos management in workplace. For instance, for Baker & McKenzie transparent remuneration strategy was key to keeping order when law firm's fast growth threatened to become chaotic. To avoid rivalry among partners running different operations, all expecting unique rewards, 'the formula' determined their pay objectively so that:

- all relevant factors considered: including billable hours generated, clients attracted, length of service, and performance of whole firm
- measurements made visible: all partners could view the criteria, and calculations based on it.
- Slo and team efforts counted: personal initiatives doubly rewarded if they helped raise performance of others, annulled if they dragged this down.

This way of linking pay objectively to individual and team effort enabled opening of 16 overseas offices in 10 years, without factional fighting that broke out in other globalising firms.

Chaotic firms are hard to imitate or benchmark; even employees rivals poach can't give coherent story of where products or marketing are going. So some organisations keep up appearance of chaos to outsiders, while being secretly well organised inside:

- Microsoft: scattergun approach to new projects with indeterminate timescales, once looked chaotic - but each started with small budget easily funded from core profits, and focus quickly regained once areas like XBox, Dynamics picked out as winners.(Googling out of control: Can Google's chaos management style ensure continuing success? Preview Strategic Direction, Jun2007, Vol. 23 Issue 8, p25-27)

Chaos Management In The Cognitive Enterprise

The basic, traditional concepts of management are still valid....planning, budgeting, scheduling, reporting and control. But how we implement these concepts needs to be changed to deal with issue storms and chaos. The traditional ways were developed to manage physical activities like manufacturing and construction. But cognitive activities are very different, that is why the traditional methods have broken down. The popular management theorist Meg Wheatley is correct to say that we have to rethink fundamental management concepts like control and autonomy. This is because they presently embody too much of the management science of physical production systems. Concepts are theories. As such they embody many unstated assumptions about the world, assumptions that may have been true when the concepts were first formulated, but which may subsequently become false. Such is the case with many of our most basic management concepts, because of the rise of something called the "cognitive enterprise".

Modern management science began early in the 20th century with people like Ford, Taylor and Gantt, and the rise of the assembly line. The science in question was the science of manual labor. The goal was to control human action as precisely as possible, so as to maximize its productivity. The epitome of this science was time and motion studies. But as the century has progressed there has been a fundamental shift in the nature of work itself, a shift from manual labor to the cognitive processing of information. Today most people think for a living. Even in manufacturing the rise of computer controlled machinery has opened the door to ongoing creative thinking throughout the work force. Thought, however, cannot be measured, planned or controlled like manual labor. Thus the fundamental assumption of complete controllability, that underlies all of traditional management thinking, is simply false.

An increasing number of global markets are presently undergoing major paradigm shifts. That is, whole new ways of thinking are rapidly evolving. The electric power industry is a good example, where a massive wave of privatization and deregulation is sweeping the world. Whole new commercial forms and practices are being articulated, many as yet poorly defined. Undoubtedly some have yet even to be thought of.

A paradigm shift is a special kind of chaotic transient, because it involves the reformulation of fundamental concepts. All information based chaotic transients involve information demand and confusion due to information delay. A natural disaster is a good example. But a paradigm shift by its nature entails conceptual confusion, which is far deeper. The growing challenge is to manage the cognitive enterprise in the face of intrinsic unpredictability. This challenge is especially acute in the context of a paradigm shift in the marketplace. Here the very concept of how one will do business is unpredictable because it is evolving rapidly. A whole new body of techniques is arising to help meet this challenge. Techniques that will fundamentally change the way that firms operate. These techniques stress early identification of issue storms, rapid response with an evolving mix of strategies, and a realistic appreciation for uncertainty. They also stress forecasting in lieu of prediction, and individual autonomy. Regarding issue storms, it is time to talk about patterns and meta-level thinking. The latter means thinking about what you are doing, and what others are doing, as opposed to doing it. You do this by asking questions like "what business am I in?" and "what is going on here?". Every issue storm has a unique pattern, which may change over time, or die out. Understanding the underlying pattern is important for several reasons. It helps you see why things are happening as they are, what is likely to happen next, and it helps avoid blaming others for the situation. The point is that whoever takes the time to understand confusion will find the heart of the battle, and might just win.

Given the pattern, you then ask what are the dynamics? Here the key concept is delay of information due to processing time, transaction time, allocation of attention, etc. For example, you have said things that have caused others in the system to think and say things, which in turn causes others to say things, and so on. Things you said some time ago may only now be affecting distant parts of the system. Likewise, things that happened in distant parts some time ago may only now be coming to you. This is why issue storms have a life of their own. Like the internet, no one is in charge. When you look at an issue storm ask where is this issue going? Not going conceptually, but physically. Who's thinking about it now, who will think about it next, and so on. Of

course if it is chaotic this gets unpredictable pretty soon, but the drill is still useful. This is not classic workflow analysis. It is forecasting, with all that concept entails. And in many cases it is not that unpredictable in the short run. Once you get clear about the dynamics of an issue storm you can start thinking about the actions and consequences that flow from that dynamics. The mistake is to try to guess the actions, without understanding the dynamics, a mistake classical economics makes with its assumption of equilibrium based on perfect knowledge among the players.

Now to make it really complicated, keep in mind that the dynamics of an issue storm are driven by the articulation of the information structures that underlie the issue. This is not a hairy as it sounds, or not always. For example, if a general question arises consider who is going to work out the details, and when? This is especially important in places where what is going on fundamentally is the articulation of a new paradigm. Remember too that the demand on attention increases exponentially with level of detail. Or conversely, that given a constant supply of attention, the level of detail that can be fleshed out is highly constrained.

If all of the above seems pretty demanding, it can be but doesn't have to be. Scaling applies, so you can do a little or a lot. Like in chemical engineering where you can start with a simple mass balance for a process, or go all the way to detailed piping and instrumentation drawings. One of the most simple chaos management systems is a list of the ten biggest issue storms you are involved in. But patterns are very useful, so I recommend that you at least have them for these ten. At the other extreme you would have fairly detailed patterns, plus the key information structures that drive the dynamics, especially the issue trees. Then too you need ways to collect meta-level data about what is going on. But above all the secret is to be aware of your place in a never ending swirl of issues and information. Our lives have indeed become chaotic (http://www.bydesign.com/powervision/Mathematics_Philosophy_Science/Chaosman.html,10.12.08)

Chaos Management In Crisis Management

There are many implications beyond administrative and policy questions that would affect our way of thinking about management and governance of the increasingly unknowable world of hyper-uncertainty and inconceivability and about crisis management theory and practice.

Managing natural disasters and dealing with “inconceivability and hyper-uncertainty” in modern public management are keys to the test of competency in sound governance and public administration. Sudden floods, earthquakes, and tsunamis illustrate disasters that, unless managed effectively, can lead to crises that have serious consequences. Similarly, hurricanes, terrorist attacks, and violent revolutions can produce crises with potentially chaotic dynamics and sweeping consequences, unpredictable outcomes, or even system breakdowns. They are consequential crises, whereas the former are chaotic, sudden, and nonlinear crises with hypercomplexities and potentially unknown outcomes. A central feature of all these crises is the sense of *urgency* demanded in managing them. Crises are borne out of short chains of events, often unpredicted and unexpected, but they develop with dynamic and unfolding events over months, days, hours, or even minutes. They disrupt the routine events of life and governance, disturb established systems, and cause severe anxieties; they produce dynamics that no one can predict and control.

Crises and emergencies produce complexities, and complex systems require complex management systems that are adaptive, skilled in extraordinary capacities, and responsive to the harshest possible conditions. They carry a changing degree of chaos and unfolding dynamics with unpredictable outcomes, resulting in disorder, but an anticipatory capacity can mitigate many such manifest behaviors and reduce the level of criticality by arresting the chaos in the early stage while managing crisis elements. Great powers, mighty empires, and strong governments are often tested by small and unexpected or sudden crises and chaotic incidents. This is a test of history, and most great powers have failed — with far-reaching consequences. In chaos theory, this is called a “butterfly effect”: A small but chaotic change may produce largescale changes by sending severe shock waves into the nerve systems of an empire, an organization, or an organism, pushing the system to the edge of chaos and breakdown, with unpredictable outcomes.

For instance, in public administration, the body of knowledge in crisis and emergency management is now expanding beyond its traditional scope and parochial parameters to embrace new concepts, approaches, and capacity building through chaos and complexity theories, adaptive and flexible system designs, and global or international dimensions as the world enters new stages of rapid globalization. Surprise management draws on chaos and complexity theories. As a social and political construction, the theory of surprise management is based on at least four principles. First, it rejects

anything that is routine and expected. Second, by extension, it is fluid and constantly changes in its nature, degree of flexibility, and adaptability. Third, it demands certain preconditions to qualify as surprising and chaotic, nonlinear and unexplainable, as distinct from linear and predictable causal behaviors. Fourth, surprise management demands cutting-edge knowledge, skills, and attitudes beyond the comprehension of most people in routine environments of governance and administration. Finally, it requires extraordinary and yet disciplined authority and power with unrestrained resources. Surprise management thrives on chaos and crisis situations; therefore, the more ambiguous the conditions, the better the capacity building in surprise management. In that case, all these principles show us that the complexity and chaos are interrelated (Learning from the Katrina Crisis: A Global and International Perspective with Implications for Future Crisis Management. Preview By: Farazmand, Ali. Public Administration Review, Dec2007 Supplement 1, Vol. 67, p149-159).

The crisis and complex situations require new ways of thinking and a new mind-set, a complexity-driven management system that can accurately read chaos and crisis situations with unfolding dynamics and surprises and manage crises through what is called a “surprise management system. Strategies of chaos management can help to solve disasters issues. This is a prescription for survival in the age of rapid globalization, hyperchange, hypercomplexity, and an “unknowable world” (Learning from the Katrina Crisis: A Global and International Perspective with Implications for Future Crisis Management. Preview By: Farazmand, Ali. Public Administration Review, Dec2007 Supplement 1, Vol. 67, p149-159)

Chaos Management In Economy

In the social world, outcomes often reflect very complex underlying relationships that include the interaction of several potentially chaotic systems; crop prices, for example, are influenced by the interaction of economic and weather systems. Investigations of economic time series by chaos theorists have usually assumed that relationships among economic actors are fixed over time. In reality, methods of stabilizing the economy have changed from the use of the gold standard and balanced budgets to Keynesian demand management and later, to monetarist controls. (Strategic Management Journal, Vol. 15, 167-178(1994), Chaos Theory and Strategy: Theory, Application and Managerial Implications, David Levy, Department of Management, University of Massachusetts – Boston, Massachusetts, U.S.A.)

The recent economic cycle coupled with the dynamic and highly competitive nature of the telecommunication industry has caused some concerns in businesses regarding the future of the telecommunication industry. As we look ahead it is important to understand if our planning approaches to telecommunication systems are appropriate. Traditionally, models used in economic and business planning assume perfect information is available to the planners. However, in reality the information is imperfect and in our global economic environment the future involves risks(JGC Vol. 14 (1), 2006,Applications of Chaos Theory for Mitigating Risks in Telecommunication Systems Planning in Global Competitive Market G. Reza Djavanshir, Reza Khorramshahgol).

There is significant debate in the economics and finance literature about how one tests a data series to determine if it is chaotic or simply subject to random influences (Brock and Malliaris, 1989; Hsieh, 1991). Moreover, it is important to recognize that many systems are not chaotic, and that systems can transition between chaotic and nonchaotic states. Chaos theory is perhaps better seen as an extension of systems theory (Katz and Kahn, 1966; Thompson, 1967) into the realm of nonlinear dynamics rather than as a total paradigm shift. (Strategic Management Journal, Vol. 15, 167-178(1994), Chaos Theory and Strategy :Theory, Application and Manageral Implications, David Levy, Department of Management, University of Massachusetts – Boston, Massachusetts, U.S.A.) In chaos theory (which in its economic extensions has strong affinities with the Hayekian approach to markets) a central concept is that of ‘bounded instability’ which express the paradox that effective organizations need to be both stable and unstable simultaneously (David Parker, Parker, Ralph Stacey Chaos, Management and Economics: The Implications of Non-Linear Thinking, London 1995).

Chaos Management In Information System

Under a global competitive environment and within the recent economic downturn, the future of telecommunication systems has become increasingly uncertain. The planning space for these systems has become highly complex with respect to changing technological, political, market, and socio-economic factors. Therefore, small changes in any of these factors may result in unpredictable and large catastrophic outcomes. Developing plans for complex and dynamic telecommunication systems based on predicting the future and ignoring its non-linear nature in globally integrated and unpredictable environments may result in disastrous results. Therefore, the question becomes how to develop plans to produce a desirable future for the

telecommunication systems and invent means and ways through the environment to approximate it as closely as possible.

The chaos theory is a more effective framework in dealing with risks in telecommunication systems planning. Chaos theory provides better means for dealing with imperfect information and unpredictability of the future(JGC Vol. 14 (1), 2006, Applications of Chaos Theory for Mitigating Risks in Telecommunication Systems Planning in Global Competitive Market G. Reza Djavanshir, Reza Khorramshahgol). Resolving the telecommunication systems planning issues in global environment requires different mind-set. Chaos theory has important implications in telecommunication systems planning, because it offers a powerful alternative to traditional way of planning that are based on economic theories' rational models of predicting and planning approaches. We showed that due to flaws associated with the boundary of human rationality and unpredictability of our emerging complex global environment this approach to telecommunication systems planning may result in unpredictable risky solutions. We also showed that telecommunication systems planning must include solutions to contingency situations as a part to being aware of the future risks(JGC Vol. 14 (1), 2006, Applications of Chaos Theory for Mitigating Risks in Telecommunication Systems Planning in Global Competitive Market G. Reza Djavanshir, Reza Khorramshahgol).

Conclusions

Changing technology and philosophies of management have been the source of new problems although they provide solutions to the current problems. Today's enterprises demand the human resource that is capable of doing much more work in a shorter period of time using several information channels at the same time. This demand appers as being the consequences of increasing number of communication/information channels and the competitive workforce market. Chaos management, specifically gained a new meaning regarding the understanding the nature of chaos, taking preventive actions and preparing rational decision making mechanisms (<http://gunce.iku.edu.tr/GunceC3S2veS3FenMuh/Gunce/GunceC4S3Ekim06FenMuh/23.pdf>, 25.12.08).

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High Performance Organizations

Jasmin Latovic

Introduction

Performance of one company depends on the organization and the place that company takes in practice. Some examples that we can take might show us that this measurement process is different for every company because each company has its own way of management control and implemented performance. The main idea of this process is to understand the success of one company in business.

Many researchers did try to understand the way of this process but it has been understood that they have to understand clearly performance management mechanism in order to come to the final understanding of the high performance organizations.

I am going to compare different types of companies and fields where we will be able to see how performance of one company has big influence on its work and organization.

So, Companies like Harley Davidson and Celestica are examples of those who have purposefully designed themselves for high performance. There is a clear operating philosophy that clarifies the underlying beliefs, values, and principles that drive the behavior of the organization. Also I investigate the components of bureaucratic and high performance work systems and the sources of variation in an organization's adoption of bureaucratic and high performance practices. Than Harvard Business School Executive Education programs, Leading High-Performance Healthcare Organizations and The Challenge of Leadership in High Performance Work Organizations are also one of the examples.

High Performance Organizations system must follow the direction of future components that are going to be important in leadership and business world.

Every aspect of this program that can educate corporations how to deal in different situations is part of measures they need to take in order to stay with other higher-performing organizations.

All these examples you are going to see in text are different kinds of organizations that are dealing with high performance practices.

The Essentials of High Performance Organizations

(Mark Vickers, Institute for Corporate Productivity)

Business leaders crave knowledge about the key elements of organizational performance. After all, in the corporate world, these are the elements that make or break companies every day.

These organizational characteristics don't have to be earth shattering or revelatory. In fact, according to a new global survey commissioned by American Management Association (AMA) and conducted by the Institute for Corporate Productivity (i4cp), they amount to basic blocking and tackling in the corporate world.

The AMA/i4cp High-Performance Organization Survey 2007 asked 1,369 respondents about an extensive series of characteristics associated with high performance. It identified higher performers by inquiring about revenue growth, market share, profitability, and customer satisfaction. The research team correlated responses about market performance with responses relating to strategy, leadership, customer orientation, and other factors, looking for the largest gaps between the highest- and lowest-performing groups.

The survey found that the single largest gap between these groups was due to whether organization-wide performance measures matched the organization's strategy. In other words, the proper alignment between performance and strategy seems to make a big difference to organizational success. The second-largest gap between higher-performing and lower-performing organizations was due to whether organizations' strategic plans were clear and well thought out. If we put these two major findings together, we see that higher-performing organizations are much more likely than their lower-performing counterparts to have clear, well-thought-out strategies that are matched up well with performance measures.

This sounds a bit like Management 101, but it actually reveals two critical and related organizational characteristics that managers often lose sight of amid the hubbub of new business ideas: consistency and clarity.

And there's something else here. Higher performers have well-conceived strategies. The great American poet Ralph Waldo Emerson wrote, "A foolish consistency is the hobgoblin of little minds, adored by little statesmen and philosophers and divines." Higher-performing organizations make sure that their consistency isn't "foolish," which is why ensuring that a strategic plan is "well thought out" is so strongly associated with success. No company can perform well if poor leaders devise poorly conceived strategies, even when those strategies are consistently implemented.

The survey also found that—aside from the emphasis on measures and strategy—the best performers are much more likely to "use customer information as the most important factor for developing new products and services." This item in the gap analysis not only emphasizes the importance of innovation, it highlights a larger trend made very clear by the survey: the tremendous emphasis that high performers place on their customers. Such organizations are considerably more likely than other companies to go above and beyond for their customers.

They strive to be world-class in providing customer value, think hard about customers' future and long-term needs, and consistently exceed customer expectations.

Below are some other characteristics of higher-performing organizations:

Their leaders are clear, fair, and talent-oriented. They are more likely to promote the best people for the job, make sure performance expectations are clear, and convince employees that their behaviors affect the success of the organization.

Their employees are more likely to think the organization is a good place to work. They also emphasize a readiness to meet new challenges and are committed to innovation.

They are superior in terms of clarifying performance measures, training people to do their jobs, and enabling employees to work well together.

They are more likely to adhere to high ethical standards throughout the organization.

Yet, the survey also indicates that even high-performing organizations could improve in various areas, and there's probably a lesson to be learned here. Like great athletes, even high-performing organizations must continuously strive to improve and "work on their game." Without the passion for improvement, they are unlikely to remain high performers for long. After all, there's no shortage of ambitious business leaders who are taking notes on their fellow high performers and working hard to ensure that their own companies eventually reach the top echelons of organizational excellence.

Implementation Workshop: High Performance Work Organizations

Since the rise of the industrial revolution, there are few challenges that compare in scale and scope with the challenge of implementing lean principles in order to achieve high performance work systems. This report summarizes key insights and learning by representatives from a cross section of organizations who are on this journey. Specifically, we report on findings from the first Lean Aircraft Initiative (LAI) Implementation Workshop, which was held on February 5-6, 1997. The report is not a cookbook or a how to manual. Rather, it is a summary of the first phase in a learning process. It is designed to codify lessons learned, facilitate diffusion among people not at the session, and set the stage for further learning about implementation.

Bureaucracy versus High Performance-by Yang, Song. Paper presented at the annual meeting of the American Sociological Association – HILTON San Francisco Aug.14. 2004

During the time of increased work reorganization, I investigate the components of bureaucratic and high performance work systems and the sources of variation in an organization's adoption of bureaucratic and high performance practices. Findings from the 1996 National Organizations

Survey suggest that the degree of workplace formalization, level of hierarchy, and number of departmentalization strongly indicate bureaucratic organizations, but the alleged high performance indicators of teamwork, skill enhancement, job autonomy, and innovative structures do not cohere to identify high performance work systems.

Multivariate analyses reveal that size, domestic and foreign market competition, and organization performance pressures are related to work reorganization. In general, large organizations under low market competition and low performance pressure tend to adhere to bureaucratic systems,

whereas large organizations with a high level of domestic and international market competition, plus tremendous performance pressures, leads to the adoption of many high performance practices. The implications for future studies on work organization are also discussed.

Building high-performance organizations in the 21st century.

We received a brief view of Mr. Gardner' organizational knowledge. He teaches a weeklong seminar on the subject; we had a short three hours. He discussed a model developed by the Federal Executive Institute during the 1980s. Several agencies now use the model, including the U.S. Navy, the U.S. Forest Service, and some Air Force organizations.

Next, he discussed workers' engagement. Often, we talk about words used to describe workers who are engaged in their work: over-tasked, result-oriented, go-to person, successful, motivated, knowledgeable, committed, etc. We then considered words used to describe "not engaged" workers: disinterested, distracted, slacker, tainted, lazy, confused, disengaged, socialite, bored, etc. Lastly, we discussed the words describing those who may be "actively disengaged" from work: retired-in-place, disruptive, traitor, disgruntled, absent, daydreaming, etc.

Leading High-Performance Healthcare Organizations

Harvard Business School Executive Education programs, Leading High-Performance Healthcare Organizations is developed and taught by a core faculty of HBS professors. Our faculty members are widely recognized as skilled educators, groundbreaking researchers, and award-winning authors.

Leading High-Performance Healthcare Organizations examines the wide-ranging challenges that confront today's healthcare executives. You will gain the skills and techniques needed to implement new processes, organizational designs, and leadership strategies within your own organization. Upon completing the program, you will be equipped to:

Evaluate new care delivery models and understand how they could affect your organization

Apply selected management best practices to healthcare delivery practices to help your org sustain comp advantage

Capture and implement innovations in order to achieve organizational excellence and improve financial outcomes

V.1. Leadership in a Complex, Changing Environment

Healthcare executives are challenged to maintain the highest possible standards in care delivery, while keeping costs under control. Throughout this leadership training program, you will gain insights into balancing these competing objectives. Topics include:

Understanding evolving issues in the medical, economic, and technological arenas, and how they affect healthcare service delivery

Examining levers of control—their uses and their limits

Identifying and applying leadership best practices for transforming organizations

Increasing expectations around quality, safety, and service

V.2. Organizational Excellence

Focused on creating an organization that learns and improves continually, you'll learn how to coordinate people, processes, and equipment to deliver excellent healthcare with maximum efficiency. Topics include:

- Designing a healthcare system that dramatically improves value
- Fostering a climate of learning and innovation
- Improving operations design and process management
- Reducing overuse, underuse, and misuse of services and resources
- Integrating care over the entire cycle of a medical condition
- Utilizing information technology to restructure care and measure results

The Challenge of Leadership in High Performance Work Organizations

Journal article by Bradley L. Kirkman, Kevin B. Lowe, Dianne P. Young;
Journal of Leadership Studies, Vol. 5, 1998

In response to increasingly complex environments, organizations are seeking new models and structures to navigate environmental uncertainty. These models typically include both structural changes (e.g. team form of organizing) and process changes (e.g. flexible manufacturing systems) in pursuit of higher levels of organizational performance.

Much has been written in both the popular and academic press regarding the high performance work organization (Arthur 1994; Luthans, Hodgetts and Lee, 1994; Pasmore 1994; Reich 1994). While known by only one name, there are a variety of definitions associated with the concept. The difficulty in arriving at a single agreed-upon definition of a high performance work system (HIPO) is exacerbated by the lack of consensus regarding the components it should have (Gephardt & Van Buren, 1996).

FREE Webcast, Edward Reilly, CEO of American Management Association; Jay Jamrog, Senior Vice President of Research with the Institute for Corporate Productivity; and Pamela O'Shea, President of Performance Insights reveal the survey findings and discuss the key facets of high-performing organizations.

VI.1. This full hour Webcast explores how high-performing organizations:

Approach leadership to drive success throughout the organization

Assess customer needs and build value for their customers

Use four major market strategies and well-formulated value propositions to fuel market growth

Align organization philosophy with strategy

Manage the talents and skills of their workforce and retain key personnel

Develop business processes and organization structures that enable clarity and focus throughout the company

Conclusion

High Performance Work Organizations are dominant part of everyday business life and in every aspect of organizational practice. In order to achieve organizational excellence every company needs to take some measures and follow the route how to stay at top.

The quality-driven institution dedicates itself to developing everyone's potential talents, centering its attention on learning. It continually seeks more effective ways to enhance student achievement through careful design and evaluation of programs, courses, and learning environments. The institution and staff both demonstrate an enthusiastic commitment to organizational and personal learning as the route to continuous improvement.

The best way to describe high performing organization it is one where a group of people work effectively together and consistently achieve their goals. Much has been written about high performing organizations. The performance of an organization is driven by more than charismatic leadership and a business plan in a binder.

Some leaders believe they alone drive organization performance or that management team is the key. To develop a high performing team, it's important to integrate all the necessary success factors starting with what are the required competencies necessary to achieve the goals.

High-performance teams in the public sector, and identified the important factors in a team process that can improve team performance. An analysis revealed that clear goals, leadership, empowerment, facilitation, commitment, communications, shared responsibility, and implementing performance strategies are eight important factors that can affect team performance.

So, High performance organizations should have enthusiastic commitment to organization and it has to achieve excellence in all aspects of that institution, because learning is the route to continuous improvement.

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Implementation Workshop: High Performance Work Organizations
Klein, Jan, Cutcher-Gershenfeld, Joel, Barrett, Betty Location:
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Edward Reilly, CEO of American Management Association; Jay Jamrog, Senior Vice President of Research with the Institute for Corporate Productivity; and Pamela O'Shea, President of Performance Insights reveal the survey findings and discuss the key facets of high-performing organizations.

Learning Organizations

Sabit Grabus

Introduction

In the organizations today, learning is too important to leave to chance. It will not be adequate to offer training and hope that people will be able to apply new insights and methods. It will be necessary to redesign work if the types of ideas are to find their way into the mainstream of management practice.

A guiding idea for redesigning work will be virtual learning spaces. For example the learning that occurs in sports team and the performing arts is embedded in continuous movement between a practice field and a performance field. It is impossible to imagine a chamber music ensemble or a theatre troop learning without rehearsal, and the championship of a basketball team without practice.

Definition of learning organization

The learning organization is an organization that learns and encourages learning among its people. (Senge, 3-14) Learning organization promotes:

- a. exchange information between employees
- b. create more knowledgeable workforce

Numerous definitions of organizational learning exist (Bontis et al. 2002, 437-469). Huber (1991, 88) defines organizational learning as the processing of information with the aim to store knowledge in the organizational memory. According to Huber, organizational learning consists of four constructs:

- (1) information acquisition
- (2) information distribution
- (3) information interpretation
- (4) organizational memory.

The first three constructs together represent the information-processing stage, which can be understood as the transformation of information into knowledge. While we might expect these constructs to be highly related empirical terms, they are theoretically distinct and treated as such. Together with the organizational-learning process in general, information processing starts with information acquisition. Organizational members collect information from sources inside the company and outside the company, while in modern learning organizations an important aspect of information acquisition occurs through employee training. Obviously, there are at least three subdimensions to information acquisition: (1) “information acquisition from internal sources” and (2) “information acquisition from external sources”, and (3) “employee training”. When assigned adequate importance, these three subdimensions allow employees to continuously update their work-related information base. Information distribution. The information one gathers through various sources and ways needs to be distributed to those members of an organization that might require it (Huber 1991). Several channels and conduits exist that allow for information distribution. Some of the scientists rely more on “people” (employees are acquainted with goals, take part in more cross-functional teams, etc.), while others rely on “systems” (e.g. the information system, organized meetings to inform employees, formalized mechanisms, and systems to facilitate the transfer of best practices).

Information interpretation is understood as the process of translating events, of developing models for understanding, of bringing out meaning, and of assembling conceptual schemes. The purpose of interpreting information is to reduce the ambiguity related to information. Organizations use different media for interpreting the information: personal contacts, telephone conversations, written memorandums, letters, special reports, the formal chain of command, as well as some modern media such as videoconferences, electronic mail, or an intranet. Information interpretation also differs in the way people get together in order to understand the information acquired and distributed (Skerlavaj et al. 2006, 75-90). Some vehicles might be “formal” such as official memorandums, expert reports, seminars, and similar events. Other might be more “informal” and involve team and personal meeting behavioural and cognitive changes organizational learning is reflected in accompanying changes.

Spector and Davidsen (2006, 63-69) claim that “learning is fundamentally about change”. If no behavioural or cognitive changes occur, organizational

learning has not in fact happened and the only thing that remains is unused potential for improvement.

Organizational learning is one of the most important sources of sustainable competitive advantage that companies have, as well as an important driver of corporate performance. Given the turbulent environments that organizations work within, continuous learning is a key driver of their ability to remain adaptive and flexible – that is, to survive and effectively compete (Barkur et al, 2007, 510-523). Studies have shown that organizational learning affects competitive advantage (Jashapara 2003, 31-50), financial and no, financial performance (Bontis et al. 2002, 437-469; Škerlavaj/Dimovski, 2006, 75-90), tangible and intangible collaborative benefits in strategic alliances (Simonin 1997, 1150-1174), the unit cost of production (Darr et al. 1995, 1750), and innovation (Garcia. et al, 2006, 21-42). Given the significance of organizational learning for corporate performance, understanding ways in which managers can influence the learning process in organizations is becoming increasingly important. Senge emphasizes the importance of leadership for organizational learning and describes capability with regard to transformational leadership as one of the most important means of developing learning organizations, while Vera and Crossan emphasize the importance of a contingent approach toward leadership and organizational learning (2004, 222-240).

Other than the above mentioned, the literature rarely addresses the relationship between leadership and organizational learning, particularly in the context of a transitional economy outside North America. Only a few empirical studies exist to date and even in these, the impact of leadership on organizational learning was not the primary research focus. Hence, Vera and Crossan (2004, 222-240) call for an empirical investigation of both transformational and transactional leadership styles and organizational performance. Nevertheless, the scarce empirical evidence does indicate that certain kinds of leadership behaviours, such as supportive, empowering, and transformational leadership, do have a positive influence on learning in organizations.

A learning organization must be grounded in three foundations:

- Culture based on human values of love, wonder, humility and compassion
- A set of practices for generative conversation
- A capacity to see and work with the flow of life as a system

In the learning organizations, language functions as a device for connection, invention and coordination.

In learning organizations people are always inquiring into the systematic consequences of their actions, rather than just focusing on local consequences. They can understand the interdependencies underlying complex issues and act with perceptiveness and leverage. They are patient in seeking deeper understanding rather than striking out to “fix” problem symptoms. They know most fixes are temporary at best and often result in more severe problems in the future. As a result of these capabilities learning organizations are both more generative and more adaptive than traditional organizations. Because of their commitment openness and ability to deal with complexity, people find security not in stability but in the dynamic equilibrium between holding on and letting go—of beliefs, assumptions and certainties. (Senge, 2006, 28-32).

Learning organizations through 5D

The definition of learning organization is given by its’ founder Mr. Peter Michael Senge. in his book named “FIFTH DISCIPLINE”

Fifth discipline is one of the five discipline described by P.M. Senge where he developed the notion of a learning organization.

According to P.M. Senge: ‘ Organizations where people continually expand their capacity to create results they truly desire, where new and expensive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together.’

The learning required in becoming a learning organization is “transformational learning”. (Senge, 2006, 38). In transformational learning, there are no problems “out there” to be solved independent of how we think and act in articulating these problems. Such learning is not ultimately about tools and techniques. It is also about who we are. We often prefer to fall again and again rather than let go of some core belief or master assessment. This explains the paradox of learning. Even when we claim we want to learn, we normally mean that we want to acquire some new tool or understanding. When we see that to learn, we must be feeling to look foolish, let another teach us. Learning doesn’t always look so good or easy anymore.

System thinking

To comprehend how we are used in organizations, we first must understand a system.

- a. System is collection of subsystems
- b. System has various imputes
- c. If any part of system change than whole system must be changed
- d. System range from simple to complex

Personal mastery

The discipline of aspiration involves formulating a coherent picture of the results people must desire to gain as individuals (their personal vision), alongside a realistic assessment of the current state of their lives today (their current reality).Discipline which teach as how to cultivate the tension between vision and reality.

The fact is that people with high level of personal mastery are actually aware of their ignorance, their incompetence, and their growth areas.

Mental models

Mental models principle is the ability to compare reality or personal vision with perceptions; reconciling both into a coherent understanding we may identify a mental models dimension of a learning organization.

Why the mental models are important?

Because, most of executives within learning organizations;

1. Want their organizations adopt the changes
2. They turn to the org. learning in desperation once their strategic decision or management plan fails.
3. Want to reduce or eliminate the paradigm blindness plaguing their organizations.

Most executives know that traditional, hierarchical, authoritarian, bureaucratic organizations tend to be slow to adopt. This fact requires the mental models!

Building shared vision

A shared vision emerges from the intersection of personal vision and helps create a sense of commitment to the long term. The vision is only truly shared when people are committed to one another having it, not just each person individually having it. This collective discipline establishes a focus on mutual purpose by building shared vision. Usually shared vision is presented by images (exe...symbolized by eye)

Team learning

A team can be defined as a small group of people , who bring to the table a set of appropriate skills, and who hold themselves mutually accountable for achieving a clear and identifiable set of goals.

Nowadays a learning organization can not be considered without a dimension of team learning.

The team learning starts with team dialog and enters into a genuine thinking together.

Conclusion

The perfect learning organization is not an attainable goal, it is merely a desirable concept: there is no correct implementation of the learning organization.

The concept of ideal learning organizations can be seen in accordance to 5 dimensions only.

Finally the learning organizations is just a means to a business goal, created to improve productivity and most importantly profit.

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Empowerment

Elias Paliogiorgos

Introduction

The word 'empower' has potency and strength. It is used frequently these days some would even say 'overused'. It is also misused. Similar to the concept of 'motivation', the most common misuse of the idea of empowerment stems from believing that one person can empower another. In the sphere of a management and organizational theory, "empowerment" often refers loosely to processes for giving subordinates (or workers in general) greater discretion and resources: distributing control in order to better serve both customers and the interests of employing organizations. This use of the word appears somewhat at odds with other usages, which most often assume the empowerment of groups and of individuals to better serve their own interests. Empowerment, is an inner to- outer dynamic, most useful when preceded by silence and inner consciousness. Empowerment is not simply another way of 'getting' something, it is a condition that supports us in living life fully. There is a psychological framework characterised by 'concern to accomplish' tasks rather than delegating formal authority through status. Empowerment refers to increasing the spiritual, political, social or economic strength of individuals and communities. It often involves the empowered developing confidence in their own capacities. The term "human empowerment" covers a vast landscape of meanings, interpretations, definitions and disciplines ranging from psychology and philosophy to the highly commercialized "self-help industry" and "motivational sciences". Sociological empowerment often addresses members of groups that social discrimination processes have excluded from decision-making processes through - for example - discrimination based on disability, race, ethnicity, religion or gender.

Personal Development and Empowerment

In the arena of personal development, empowerment forms a system of self-realization or reformation. The concept of personal development is seen as important by many employers, with emphasis placed on continuous learning, increased self-awareness and emotional intelligence. Empowerment is

ultimately driven by the individual's belief in their capability to influence events.

Empowerment can be attained through one or many ways. An important factor in the discovery and application of the human "self empowerment" lies within the tools used to unveil the truth. It has been suggested that Yoga is one such tool that can be used for more than the obvious physical benefits. When Yoga is practiced consistently the mind / body connection is apparent. Through this connection, the individual finds him or herself with a stronger sense of self and the ability to change areas where bad habits rule, negative emotions run rampant, even controlling addictions through understanding them for what they are. What can be more empowering than gaining control over self.

Empowerment depends on managing the dilemmas or polarities which confront management decisions in organizations. Polarities can also help people diagnose and deal with a group's resistance to change. Real empowerment must be supported by information collected from both dyads of a continuum: inner dyads and outer dyads.(Gupta and Kurian, 2006, 29-39) Empowered people have freedom of choice and action. This in turn enables them to better influence the course of their lives and the decisions which affect them.

There has been considerable academic and practitioner interest in the topic of empowerment. Empowerment programs have been introduced in a number of organisations in order to improve productivity, increase customer satisfaction and enhance competitive advantage. The majority of research on empowerment has focussed on the individual job incumbent's psychological experience of empowerment and linking this with various work-related outcomes (e.g., job satisfaction, work performance etc.). However, a model that focuses on individual subjective reactions is, at best, incomplete if it does not include an examination of the contextual factors that shape those perceptions. Authors on the topic of empowerment have emphasised the importance of organisational environment or context (Conger & Kanungo, 1988, 471-482; Spreitzer et al. 1997, 679-704; Thomas & Velthouse. 1990, 666-681). However, there has been little research that has examined the links between psychological climate and empowerment. Yet an understanding of the work context that facilitates empowerment has important theoretical and practical implications. Theoretically, such knowledge would extend our understanding of the antecedents of empowerment, in particular, the psychological appraisals of the work environment that are important

determinants of empowerment. For the practitioner, it provides concrete suggestions about the work place that can be targeted to develop feelings of empowerment.

In the new knowledge economy, involvement in an organization is a two-sided interaction. In today's corporate environment a manager must work towards engaging organization forcefully enough to achieve its objectives. New knowledge-based enterprises are characterized by flat hierarchical structures and multi-skilled workforce. Managers assume more leadership and coaching tasks and work hard to provide employees with resources and working conditions they need to accomplish the goals they've agreed to. In brief, managers work for their staff, and not the reverse. Investigation of the various initiatives under the name of empowerment reveals a variety of managerial meanings and motives for empowering employees. Four different motives can be identified. These shape the nature of the initiatives selected in an organization. These are likely to generate different levels of commitment, and allow different degrees of autonomy and discretion among the empowered people. It provides a framework for understanding managerial motives in selecting different forms of empowerment; suggests some contextual factors which are likely to influence managerial perceptions, and finally considers the impact of initiatives on the empowered.(Lashley, 1995, 27-32).

Empowerment is the oil that lubricates the exercise of learning. Talented and empowered human capital is becoming the prime ingredient of organizational success. A critical feature of successful teams, especially in knowledge-based enterprises, is that they are invested with a significant degree of empowerment, or decision-making authority.

Employee empowerment has become a trend over the last decade, approaching the status of a movement or of a fad, depending on one's perspective. The concept of empowerment involves increased individual motivation at work through the delegation of authority to the lowest level in an organization where a competent decision can be made. Thus, the empowerment concept has roots in such substantive issues as intrinsic motivation, job design, participative decision making, social learning theory, and self-management. (Seizer et all 2004, 332-349) Empowerment is the process of enhancing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. Employees are the firm's most underutilized resource. Central to this process are actions which both build individual and collective assets, and improve the efficiency

and fairness of the organizational and institutional context which govern the use of these assets.

An integrative psychological approach to employee empowerment was developed based on the premise that the psychological experience of power underlies feelings of empowerment. This research extends existing perspectives on empowerment by incorporating the empowering effect of valued goals, such as those provided by transformational leadership. Goal internalisation was identified as a major component of the psychological experience of empowerment, in addition to the two traditional facets of perceptions of control over the work environment and perceptions of self-efficacy or competence. Standard measure development procedures using a sample of employed individuals from Quebec, Canada and subsequent validation with an organisational sample from Ontario, Canada yielded a three-factor scale of psychological empowerment corresponding to these three dimensions. The implications of defining empowerment as a psychological state and the need for multiple measures of empowerment are also discussed (Menon, 2001, 153-180).

Equally important, employee empowerment changes the managers' mind-set and leaves them with more time to engage in broad-based thinking, visioning, and nurturing. This intelligent and productive division of duties between visionary leaders, focusing on emerging opportunities, and empowered employees, running the business unit day to day (with oversight on the leader's part) provides for a well-managed enterprise with strong growth potential.

Worker responsibility has always been highly motivating and extremely efficient. It is little used because most leaders' priority is control, based on the belief that their ideas alone are responsible for efficiency. Today's fast changing technology compels the adoption of worker responsibility. Throughout history, worker responsibility was implemented when efficiency had priority over control. Historically, there are three stages of development in the basic approach to motivating people to higher performance globally:

- Getting them to Participate (1970s)
- Involving them (1980s)
- Empowering them (1990s and beyond)

Participation is the first step in the process of involving workers in the company's decision-making processes. Instead of planning everything from the top level of the organisation, for example in setting the annual budget, a participative manager would invite workers and lower levels of management to contribute their ideas

to the process. He or she need not take heed of those ideas in every detail, but the shape of the final plans would have been influenced by the whole company, and perhaps most importantly, everyone would feel as though they had contributed and that their voice had been heard—prime requirements for ‘ownership’.

Employee Empowerment

People are the firm's most underutilized resource. In the new knowledge economy independent entrepreneurship and initiative is needed throughout the ranks of your organization. Involvement in an organization is no longer a one-way street. In today's corporate environment a manager must work towards engaging organization forcefully enough to achieve its objectives. New knowledge based enterprises are characterized by flat hierarchical structures and multi-skilled workforce. Managers assume more leadership and coaching tasks and work hard to provide employees with resources and working conditions they need to accomplish the goals they've agreed to. In brief, managers work for their staff, and not the reverse.

Equally important, employee empowerment changes the managers' mind-set and leaves them with more time to engage in broad-based thinking, visioning, and nurturing. This intelligent and productive division of duties between visionary leaders, focusing on emerging opportunities, and empowered employees, running the business unit day to day (with oversight on the leader's part) provides for a well-managed enterprise with strong growth potential. Empowered people have freedom of choice and action. This in turn enables them to better influence the course of their lives and the decisions which affect them.

The Process of Empowerment

The process which enables one to gain power, authority and influence over others, institutions or society. Empowerment is probably the totality of the following or similar capabilities:

- Having decision-making power of one's own
- Having access to information and resources for taking proper decision
- Having a range of options from which you can make choices
- Ability to exercise assertiveness in collective decision making
- Having positive thinking on the ability to make change
- Ability to learn skills for improving one's personal or group power.
- Ability to change others' perceptions by democratic means.

- Involving in the growth process and changes that is never ending and self-initiated
- Increasing one's positive self-image and overcoming stigma
- Increasing one's ability in discreet thinking to sort out right and wrong

In short, empowerment is the process that allows one to gain the knowledge, skill-sets and attitude needed to cope with the changing world and the circumstances in which one lives.

Workplace Empowerment

One account of the history of workplace empowerment in the United States recalls the clash of management styles in railroad construction in the mid-19th century, where "traditional" hierarchical models of control encountered individualistic pioneer workers, strongly supplemented by methods of efficiency-oriented "worker responsibility". In this case, empowerment at the level of work teams or brigades achieved a notable (but short-lived) demonstrated superiority.

Empowerment in the workplace is regarded by critics as more a prede-empowerment exercise, the idea of which is to change the attitudes of workers, so as to make them work harder rather than giving them any real power. There is evidence that initiative and motivation are increased when people have a more positive attribution style. This influences self-belief, resilience when faced with setbacks, and the ability to visualize oneself overcoming problems. The implication is that 'empowerment' suits some more than others, and should be positioned in the broader and wider context of an 'enabling' work environment.

Empowered Organisations

Are organisations becoming more similar worldwide or are they maintaining their cultural dissimilarities? Is the world gradually creating one way of doing business or is the world maintaining a set of distinct markets defined by equally distinct national boundaries, each with its own culturally distinct approach to empowerment in business? This convergence-divergence debate, sometimes called 'the culture debate', has promoted much discussion in the cross-cultural literature in recent years. Empowered organisations are composed of empowered persons, although it is not necessarily true that a group of empowered persons automatically creates an empowered organisation. Organisations that are truly empowered have moved out of the old paradigm of competition and believe in limitation and scarcity. Many persons like to consider the empowered

organisation as one that is moving or has moved into the 'new paradigm'. Empowered organisations have transformed themselves so that they are able to demonstrate such characteristics as clear and honest communications, collaboration within and between work units (usually called teams), shared responsibility in all aspects of task and process, and delivery of high quality products and services driven by customer/client needs. Persons in empowered organisations are likely to talk about the 'joy' of work and feeling 'love' for their team-mates, although such words may not be expressed nor are such words proof of empowerment. While discussing empowered organisations, it is also apt to discuss here the corporate actions in this direction. Policies: What gets rewarded gets done. What gets punished gets avoided. Corporate policies and procedures such as performance review and merit-based pay increases show people what is really important to senior management.

Conclusion

Empowered persons are balanced, confident, aware, vital, caring, and ready. Those who are empowered are not depressed, confused, aggressive, divisive, or wishy-washy. Of course, even empowered persons have days or moments of confusion or frustration or doubt, but the predominant expression is one of confidence and strength and consideration for themselves and others. Also, empowerment can be situational; that is to say, we may feel and be empowered in one situation but not in another. Most people like to be in the presence of those who are truly empowered because the energy in and around them is contagious and healing. Empowered persons are eager to laugh and experience the moment in a way that helps others to find their own power. When empowered persons shine their light, others can more easily find their own light. The behaviour of empowered persons is often imitated, but empowerment is not just a set of actions. Actions aligned with inner knowingness and strength are necessary for true empowerment. Enlightened consciousness is the source of empowered actions rather than the other way around. To be empowered, then, we must let go of outdated beliefs, dense vibrations, repressed fears and other feelings. To be empowered, we must review our beliefs and replace those that are dis-empowering with those that are empowering. To be empowered, we must be conscious of our thoughts, feelings and beliefs. To be empowered, we consider our own desires, beliefs and feelings as well as others' desires beliefs and feelings. To be empowered, we start where we are right now without feeling something is wrong or believing we need to be 'fixed.' Empowerment is also different from delegation, as delegation is a top-down approach while empowerment happens when an employee actually seeks to be a part of the activity voluntarily, thus making it unmistakably a bottom-up approach.

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Strategic Alliances

Halil ÇATAK

Introduction

The progress in communication and technology changed the modus operandi of international companies. A company based in Far East Asia or South Africa is able to run its operations in Europe or America or vice versa.

Thanks to internet and telecommunication technologies, companies are able from their headquarters coordinate simultaneously all branches regardless of their geographic locations around the globe. This feasibility makes companies more flexible. For example a company can make all its operations fruitful by using never ending day time, opening new branches in different time zones. This phenomenon created more competition between companies all over the world.

In despite of progresses in technology and communication there are many other requirements for companies to make fierce competition in different conditions emanate from variables such geographic, linguistic, cultural and civilization differences. Even a company based in place far away from the area in which it wants to make business activities achieve all these requirements, it needs also new physical means and human resources for its operations. All of these activities mean new financial expenses.

For a company being not an NGO, profit is essential motive for making this kind of expansion. To produce same product or service in same quality and submit to customer with the fewer prices is one of the basic rules in the competition. In this critical point, companies need to find a solution to reduce their expenses to be compatible with the companies making business in the same sphere. It means they have to find partners among their competitors to make better competition with other competitors by consolidating their abilities and sharing expenses. By doing this both sides benefit and continuously develop and use new technologies to grow, to acquire new capabilities and to enter new markets. It makes possible for these firms to take part in strategic alliances to meet more needs of their customers because they can create signifi-

cant synergies in Research and Development, Marketing, and even Financial Dimensions.

Defining of Strategic Alliance

A Strategic Alliance is a mutually beneficial long term formal relationship formed between two or more parties to pursue a set of agreed upon goals or to meet a critical business need while remaining independent organizations. (Goncalves, Mertins, 2007).

Partners may provide the strategic alliance with resources such as products, distribution channels, manufacturing capability, project funding, capital equipment, knowledge, expertise, or intellectual property. The alliance is cooperation or collaboration which aims for a synergy where each partner hopes that the benefits from the alliance will be greater than those from individual efforts. The alliance often involves technology transfer (access to knowledge and expertise), economic specialization , shared expenses and shared risk. (<http://en.wikipedia.org> (14/12/2008)).

History

Alliances are not new. Phoenician merchants set up joint ventures to limit their risks in overseas trading. Nor is knowledge-based competition a recent phenomenon: Italian city-states forbade, under pain of death, the export of knowledge about silk making. (Badaracco, 1991).

These tiny sovereign bodies evolve and prospered in turbulent, dangerous, confusing times. Their boundaries were open and porous. Artists like Leonardo da Vinci moved among the city-states; the Crusaders an merchants brought immigrants, goods, and ideas from the Christian and Muslim worlds; and Milan, Venice, Florence, and other city-states competed an cooperated with each other, often at the same time. The leaders of city states such as the Medici of Florence raised diplomacy to a high art as they forged and managed a complex, changing network of strategic alliances. (Badaracco, 1991).

By the early 1970s however proliferation and migration of knowledge had created complications. The United States had successfully contributed to the rebuilding of other economies (Japan was to be an unsinkable aircraft carrier in the Far East). The industrial policies of other countries helped to protect and strengthen their domestic companies. Through licensing, joint ventures, reverse engineering, and other means knowledge migrated from the United

States to these companies. Many of them combined their newly acquired knowledge with indigenous skills (such as Japan's experience with trucks, motorcycles, and small engines and its close collaboration with suppliers) and with lower labour costs, and then capitalized on liberal U.S. trade policy to build strong positions in the U.S. market. (Badaracco, 1991).

Types of strategic alliances

The strategic alliance can broadly be classified into two different types. One is known as "strategic alliance of product chain" which aims at assuring mainly the transferable knowledge which can be easily transferred or acquired. The other type is called as "strategic alliance of knowledge chain" which aims at acquiring the knowledge through close relationship and is namely concerned with acquiring knowledge which is difficult to transfer.

1) Strategic alliance of product chain: This is the link on the basis of product or the parts, with alliance among the enterprise as the center of focus. The initial stage of alliance between G.M. and Suzuki which began in 1981 is an example of strategic alliance of product chain. G.M. required small car on immediate basis and Suzuki wanted an access to the transportation system in America as well as the capital investment for its self-designed sub compact car, without incurring the cost and risk of constructing its own dealer network. The strategic alliance of product chain like this had played only a very small role in acquiring knowledge.

2) Strategic alliance of knowledge chain: In this type of strategic alliance, focus is laid on knowledge and it aims at learning the knowledge as well as creativity. This type of alliance is not restricted to similar enterprises only and is carried out even among the wide range of different organizations also. A typical example of this type of alliance was the tie up between I.B.M. and Siemens, which was made public in 1990. The two companies aimed at acquiring new technology for design and manufacturing of computer chip for developing the second generation chip which would have accuracy higher than the most advanced chip, through this alliance. [http:// wiredmba. blogspot.com /](http://wiredmba.blogspot.com/) (01.01.2009)

Joint Ventures

A joint venture is an agreement by two or more parties to form a single entity to undertake a certain project. Each of the businesses has an equity stake in the individual business and share revenues, expenses and profits."Joint Ventures are agreements between parties or firms for a particular purpose or venture. Their formation may be very informal, such as a handshake and an

agreement for two firms to share a booth at a trade show. Other arrangements can be extremely complex, such as the consortium of major U.S. electronics firms to develop new microchips," says Charles P. Lickson in *A Legal Guide for Small Business*. Joint ventures between small firms are very rare, primarily because of the required commitment and costs involved.

Outsourcing

The 1980s was the decade where outsourcing really rose to prominence, and this trend continued throughout the 1990s to today, although to a slightly lesser extent. The early forecasts, such as the one from American Journalist Larry Elder, have been shown to not always be true: "Outsourcing and globalization of manufacturing allows companies to reduce costs, benefits consumers with lower cost goods and services, causes economic expansion that reduces unemployment, and increases productivity and job creation."

Affiliate Marketing

Affiliate marketing has exploded over recent years, with the most successful online retailers using it to great effect. The nature of the internet means that referrals can be accurately tracked right through the order process.

Amazon was the pioneer of affiliate marketing, and now has tens of thousands of websites promoting its products on a performance-based basis.

Technology Licensing

This is a contractual arrangement whereby trade marks, intellectual property and trade secrets are licensed to an external firm. It's used mainly as a low cost way to enter foreign markets. The main downside of licensing is the loss of control over the technology – as soon as it enters other hands the possibility of exploitation arises.

Product Licensing

This is similar to technology licensing except that the license provided is only to manufacture and sell a certain product. Usually each licensee will be given an exclusive geographic area to which they can sell to. It's a lower-risk way of expanding the reach of your product compared to building your manufacturing base and distribution reach.

Franchising

Franchising is an excellent way of quickly rolling out a successful concept nationwide. Franchisees pay a set-up fee and agree to ongoing payments so the process is financially risk-free for the company. However, downsides do exist, particularly with the loss of control over how franchisees run their franchise.

Research and Development

Strategic alliances based around R&D tend to fall into the joint venture category, where two or more businesses decide to embark on a research venture through forming a new entity.

Distributors

If you have a product one of the best ways to market it is to recruit distributors, where each one has its own geographical area or type of product. This ensures that each distributor's success can be easily measured against other distributors.

Distribution Relationships

This is perhaps the most common form of alliance. Strategic alliances are usually formed because the businesses involved want more customers. The result is that cross-promotion agreements are established.

Consider the case of a bank. They send out bank statements every month. A home insurance company may approach the bank and offer to make an exclusive available to their customers if they can include it along with the next bank statement that is sent out. It's a win-win agreement – the bank gains through offering a great deal to their customers, the insurance company benefits through increased customer numbers, and customers gain through receiving an exclusive offer. <http://www.marketingminefield.co.uk/> (01/01/2009)

Stages of Alliance Formation

A typical strategic alliance formation process involves these steps:

Strategy Development

Strategy development involves studying the alliance's feasibility, objectives and rationale, focusing on the major issues and challenges and development of resource strategies for production, technology, and people. It requires aligning alliance objectives with the overall corporate strategy.

Partner Assessment

Partner assessment involves analyzing a potential partner's strengths and weaknesses, creating strategies for accommodating all partners' management styles, preparing appropriate partner selection criteria, understanding a partner's motives for joining the alliance and addressing resource capability gaps that may exist for a partner.

Contract Negotiation

Contract negotiations involves determining whether all parties have realistic objectives, forming high calibre negotiating teams, defining each partner's contributions and rewards as well as protect any proprietary information, addressing termination clauses, penalties for poor performance, and highlighting the degree to which arbitration procedures are clearly stated and understood.

Alliance Operation

Alliance operations involves addressing senior management's commitment, finding the caliber of resources devoted to the alliance, linking of budgets and resources with strategic priorities, measuring and rewarding alliance performance, and assessing the performance and results of the alliance.

Alliance Termination

Alliance termination involves winding down the alliance, for instance when its objectives have been met or cannot be met, or when a partner adjusts priorities or re-allocated resources elsewhere. (<http://en.wikipedia.org/> (14/12/2008))

Seven features of successful strategic alliances

1. Values; to be successful in an alliance the organizations need to hold a shared set of values about the cause they are championing and about ways of working together. These values will influence the way the parties approach the alliance and how they work together.
2. Leadership
Partnerships require champions in each of the participating organizations, and these individuals need to take direct responsibility for achieving the partnership goals. Partnerships also require the unequivocal support of the leaders of the participating organizations.
3. Clarity of mission and strategy; Strategic alliances need a compelling mission, realistic objectives and a clear strategy for achieving them. Each partnership needs to have great clarity over its goals, achievable objectives with win-win opportunities for both organizations.
4. Board commitment; the boards of all participating organizations need to be strongly committed to the partnership and willing to support it through the good times and the difficult times.
5. Resources; Strategic alliances need to be properly resourced and there needs to be great honesty and realism about the time and financial commitments each organization will have to make to the partnership. When it comes to reporting on how the resources have been applied, the financial reports need to be tailored to the needs of the partnership and not to necessarily follow the standard reporting formats of the participating organizations.
6. Open and honest communications; managers need to recognize that many different stakeholders such as funders, board and committee members, staff, chapters and volunteers, may be affected by a strategic alliance. Each requires regular and thorough communication. Formal communications should be supported by plenty of informal communication, ideally at board, senior management and staff levels.
7. Commitment to good faith negotiations. When the alliance is being established there should be three ground rules. Without prior agreement of all partners:

- there should be no material changes in the partnership proposition
- negotiators must be named and there should be no changes during negotiations
- there must be no negotiations with other external parties.
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Ambush Marketing

The Battle outside the Field

Ruchan Ramadan

Introduction

The purpose of this part is to show the development and growing importance of Ambush Marketing for the way events are organized and will be organized in the future. The topic has received a lot of attention and coverage lately, especially in the online marketing-relevant media, although the general public tends to be unaware of it. Thus, I believe it will be instructive to research on the implications of ambush marketing for past, present and future events.

The term Ambush Marketing describes a type of Guerilla Marketing – namely, low budget marketing – through which a company attempts to gain inexpensive or even cost-free association to a particular event. (Ambush Marketing and the 2010 World Cup)

Two approaches are to be distinguished in the more exact definition of this phenomenon. Most sources narrow down the definition to include only events, where sponsorship or partnership fees are in place. With this initial assumption Sam Fullerton provides an approach, defined by some as “the narrow approach” (Ambush Marketing Legislation Review, pg. 13), according to which the major goal of Ambush Marketing is to confuse the consumer into thinking that the ambushing company has some official sponsorship affiliation with the ambushed event (Fullerton, Sam. Sports Marketing, pg. 107). Some typical examples are when the ambusher sponsors media coverage of the event; makes a sponsorship-related contribution to some of the players, purchases advertising time during the broadcast replays of the event; engages in advertising to coincide with the timing of the event; etc (Fullerton, Sam. Sports Marketing, pg. 111).

Other sources prefer the broader definition as given above and go further to explain that in some cases sponsorship affiliation may actually be denied in general (Ambush Marketing Legislation Review, pg. 7). An example of this

could be an official visit of a popular figure, e.g. the English queen, which naturally attracts intensive media attention. An example of an Ambush Marketing technique in this case would be the placement of logos, slogans, products, messaging, etc in the background, so that they are filmed and later broadcasted during the TV programs' reportages of the event.

Generally, the cases discussed in the "narrow approach" fall under the category of "ambush marketing by association", while those discussed under the broader definition also include "ambush marketing by intrusion", namely when the ambushing company uses the event as a media for gaining publicity, rather than trying to create the image that it is an official sponsor.

Regardless of which method is chosen, all sources agree that a very important feature of efficient ambush marketing is that it should either be legal - taking advantage of the lack of legislation in the particular area, rather than lead to court trials for the ambushing company (Ambush Marketing Legislation Review, pg.7); or should violate only laws which are unlikely to be enforced, due to among other reasons the uncertainty of the interpretation of the legislation in question; the lack of clarity concerning the way the laws should be applied, or the high litigation costs potentially incurred by the body which is supposed to apply the laws. In case the ambusher clearly violates a trademark law through his marketing campaign, his actions rather fall into the category of "piracy" (Fullerton, Sam. Sports Marketing, pg. 110).

Because the first definition – the "narrow approach" is more largely implemented, it will be the one used in this part of the book. Furthermore, unless otherwise stated, this research will discuss cases, where one or more official sponsors exist.

Examples of Ambush Marketing

One of the first documented ambush marketing techniques was used in the Los Angeles Olympic Games in 1984 when Kodak sponsored the TV broadcasting, as well as the US track team, despite not having paid a fee like FUJI for official sponsorship rights. Four years later, Kodak managed to secure an official sponsorship of the 1988 Summer Olympic Games in Seoul. As if to get even for the ambush from 1984, Fuji aggressively advertised their sponsorship of the US swimming team, participating in the Seoul Olympic Games. (www.marketing-bulletin.massey.ac.nz)

Another company, which is undoubtedly experienced in ambushing, is Nike (www.sportsbiznews.blogspot.com/2007). Successfully, they manage to associate themselves with each International Olympic Committee (IOC) big event by either sponsoring one person or a team, without having to pay the high fees for sponsorship rights. This leads to cheaply increase sales and consequently higher return on the investment made on the ambush strategy that it would be achievable by an official sponsor.

For example, during the Olympic Games in Barcelona in 1992 Nike sponsored the press conferences of the US basketball team, despite the fact that Reebok was the official sponsor of the event. Moreover, when Michael Jordan (www.sports.yahoo.com/nhl/blog), a Nike “face” and the creator of Air Jordan accepted the gold medal for basketball, he had covered the Reebok logo on the back of his kit with the American flag, in this way avoiding to breach his contract with Nike.

In the next Olympic Games in 1996 Nike plastered the whole Atlanta with slogans and billboards attracting attention to the Nike center, near the Olympic Village. (www.galagazette.com) The printing costs proved much lower than the 50 million needed to become an official sponsor. At a later point in time, when television audiences were asked to recall the names of official sponsors, 22% cited Nike, compared to only 16% who cited the real official sponsors, Reebok (www.performanceresearch.com). This big ambush is refereed by many as “the ambush of all ambushes” and Nike’s tactics clearly resulted in devastating the credibility of the IOC, as Reebok ended their commitment to the Committee.

Another well-organized ambushing initiative by Nike was conducted during the Converse in Los Angeles part of the 1984 Olympic Games. Their strategy was to buy numerous billboards leading to the Olympic Village and launch marketing campaigns featuring very famous former Olympic athletes such as Mary Decker and Carl Lewis (higher.mcgraw-hill.com). The other two major ambushing triumphs of Nike were over Adidas during the World Cup in 1998, when Nike sponsored major football teams without being an official sponsor of the game; and during the Salt Lake City Olympic Games in 2002, when they sponsored the Brazilian team, who won the championship.

In addition to the battle between sportswear merchandising, the “Plastic War” (USA Today 16.06.1993 Plastic War: IOC to Sue AmEx Over Ads) between Visa and American Express is a fight with a long story. It started in 1992 during the Olympic Games in Barcelona, Spain. As part of the “official

sponsorship package” Visa received the rights to be a card “monopolist” in the Olympic village, where everything could be bought only with Visa and no other card. Furthermore, each official commercial of the Olympic Games, which was created with the distinctive voice of Morgan Freeman, closed with the following line: “Visa. Proud sponsor of the Olympic Games. And the only card accepted there”. In response to this aggressive marketing campaign, American Express launched ads stating “correctly” that “to visit Spain you don’t need a visa” (Schlossberg, H. (1996): Sports Marketing).

During the 1992 Winter Olympic Games in Albertville, France American Express released a commercial displaying athletes and stating “if they want to enjoy the fun and games, they don’t need a visa”. The result of the successful aggressive marketing was shown by a questionnaire revealing that although 55% of the people could recall that VISA was the official credit card sponsor, still 30% identified American Express as the sponsor. The fight continued during the 1994 Lillehammer Games in Norway with the famous “you don’t need a visa to go to Lillehammer” slogan (Schlossberg, H. (1996): Sports Marketing).

During the Winter Games, when Coca Cola paid 33 millions for official sponsorship on the US basketball team, the company had hard time having to fight on two fronts against ambushers. Pepsi successfully managed to attract attention by airing a commercial with the “Dream Team” star Magic Johnson (www.law.northwestern.edu), also like Michael Jordan part of the US team, sponsored by Coca Cola. During the same games, whereas Wendy’s also took a “free-ride” by airing a campaign featuring it’s chairman Dave Thomas on a quest to find an Olympic sport in which to compete resulted in 68% respondents recalling Wendy’s as an official sponsor. According to an agency executive, Mc Donald’s didn’t manage and implement their sponsorship commercials and instead focused on their meals and not so much on the fact that they were sponsoring the Games.

The case of ambush marketing continued during the 1996 Atlanta Olympic Games. Apart from the “assault” of Nike against Reebok, the sprinter Linford Christie, sponsored by Puma, wore contact lenses embossed with the Puma logo at the press conference preceding the 100 meters final, despite Reebok having paid 40 million as the official sponsor. (www.abc.net.au)

All of these ambushes resulted in very strict regulations and legislation during the Olympic Games in Sydney, Australia aiming to ban not official sponsors to use official phrases such as “Sydney Games”

(www.nytimes.com/2008) in their slogans. The host city and IOC signed an agreement which required Australia to prevent any attempts to “confuse buying public as to which company really holds official sponsorship rights” (www.brandchannel.com). However, Qantas Airlines’ slogan “The Spirit of Australia” sounds strikingly similar to the games’ slogan “Share the Spirit.” In response to the threats for a lawsuit of the International Olympic Committee and Ansett Air, the official sponsor, Qantas claimed that it’s just a coincidence.

The FIFA World Cup 2002 co-hosted by Japan and South Korea also didn’t go without ambush attempts. Samsung (www.lkshields.ie) managed to ambush both JVS and Philips by distributing Samsung caps to the spectators, which were visible on the television. Furthermore, both Burger King Israel and LG Electronics South Africa launched advertisements about a competition with a big prize a trip to Germany for the finals (www.cup2010.info/Sponsors/AmbushMarketing). FIFA managed to counter the ambush attempt and won an injunction forcing Burger King to discontinue the competition.

During the same year, the Winter Olympic Games took place in Salt Lake City, where a small local company designed delivery trucks with the slogan “Wasutch Beers. The Unofficial Beer. 2002 Winter Games” (www.henryhughes.co.nz) managing to overthrow Anheuser-Busch who paid more than US\$ 50 million for the sponsorship rights.

Other major events such as Wimbledon 2005 are also being targeted by ambushers. Colgate-Palmolive was giving away free bottles of water branded by Palmolive. However, Buxton was the official sponsor, and the water had to be confiscated at the entrance of the court by officials. (www.greaterlondon-cim.co.uk)

During the 2006 FIFA World Cup tournament in Germany a lot of ambush marketing controversies took place. One of them was when thousands of Dutch soccer fans showed up for the game against the Ivory Coast, which Holland won 2-1, wearing pants in the colour of the national team with a Dutch beer logo on them as part of a promotion of the beer (see Fig.4 above), however the supporters were not allowed on the stadium unless they took off the pants, because the official sponsor of the World Cup was Budweiser. (www.madisonian.net) Facing the option of not watching the game, thousands of fans ended up watching the game in underwear. In response to Peer Swinkels from the Dutch brewery, who was outraged by the

extreme measures taken, Markus Sieglar, FIFA's director of communications, announced in his daily briefing that FIFA was aware of the ambush attempt that the Dutch beer Bavaria was attempting and “it seems like an organised attempt to conduct a mass ambush publicity campaign” (www.soccernet.espn.go.com) when “thousands of people all turn up wearing the same thing to market a product and to be seen on TV screens”.

During the same year Pepsi successfully managed to attract attention and undermine Coca Cola. While Coke was the official sponsor of the soccer tournament, Pepsi launched a campaign featuring big football stars like David Beckham, Thierry Henry, Ronaldinho, Roberto Carlos and Raul “playing for Pepsi”(www.theinspirationroom.com) directly linking them to sponsorship of the World Cup.

During the same year, a battle between the national carrier Lufthansa and the official long-distance carrier occurred (www.flightglobal.com). “To express the company's links to football” Lufthansa painted the nose of 40 aircrafts as a football decals and offered special tickets such as the GloBall Airpass to share the spirit of the big tournament. This did not sit well with Emirates Air, who paid millions of Euros to FIFA to become the official sponsor of the World Cup.

Moreover, the German court (www.nytimes.com) refused FIFA the right to trademark slogans such as "Fussball WM 2006," or "Football World Cup 2006" when the organizers tried to prevent ambush attempts from Ferrero to pass on their merchandise, by registering numerous of slogans and trademarks.

The Olympic Games in Beijing during 2008, one of the heaviest sponsored Olympics ever where sponsors paid up to 100 million dollars for rights (www.managingip.com), didn't pass without ambush. Li Ning, a Chinese former athlete and owner of the main competitor of Adidas in China Li-Ning Company Limited, was the one who light the torch during the opening ceremony of the games and stole the attention of billions of viewers, regardless of the fact that he was all dressed in Adidas clothes. The Chinese company, not an official sponsor of the games, has dressed the Chinese ping pong team, Sudan's track and field athletes and the Sweden's Olympic delegation. The reason why Beijing was so heavily sponsored was because for many companies finding their way in the Chinese market was crucial. And yet, according to Forbes Magazine “Beijing Olympic Sponsorship's A Waste” because 80% of the pooled Chinese consumers stated that they don't care who the sponsor is and that it does not influence their

buying behaviours. Furthermore, only 50% of the respondents believed Adidas to be the official sponsor, whereas 10% thought that it was Li-Ning Limited, because of the lighting of the torch. In response to the ambush, the spokesperson of Adidas referred to Li Ning as “the dream of many Chinese: A child brought up in poverty who became a star and the nation's first millionaire athlete. He deserved to play that role.” (www.advertising.suite101.com)

Additionally, a battle occurred between fast food chains (www.rthree.com) as well. KFC launched a campaign to build Olympic association by asking people to vote for a street or neighbourhood, which best represents the spirit of the Olympic Games.

Another big controversy is the fact that some ambush campaign attempts include companies sponsoring one person, who is in a team being sponsored by the main competitor such as the case with Michael Jordan.

Another case of that “legal” ambush occurred during the UEFA EURO 2004 hosted by Portugal, when the official sponsor of the German team was McDonalds, but at the same time Oliver Kahn was engaged as being the face for Burger King and their campaign “Burger King Kahn Action”.

The same happened with the Jamaican athlete Usain Bolt, who was being sponsored by Puma, not an official Beijing sponsor, and yet they made a winning bet on the three-time medal winner and world record holder. “We made him a hero in our global advertising campaign without knowing he would have a breakthrough at the Olympics” says the CEO of the company, which turned out to be one of the biggest winners from sponsorships.

Another case of personal sponsorship against the organizers sponsor, occurred when NASCAR filed a 100 million dollar lawsuit against AT&T in 2007. The problem came around when AT&T acquired Cingular and wanted to replace the old Cingular logo on the car the company was sponsoring with the new one. The official wireless sponsor of NASCAR is Nextel, the main competitor of AT&T (www.mediapost.com), which also sponsors some of NASCAR’s big exclusive events such as The Nextel Cup. In its claim the company, which governs multiple auto racing events, stated that AT&T was breaching the contract which Cingular previously had with NASCAR. Reportedly, if the suit is successful and the branding of Cingular interferes with the official sponsor Nextel, AT&T will be banned from sponsoring another car in 2008.

The Future of Ambush Marketing

FIFA* World Cup 2010™

Having seen all the different ambush activities of the past, one can be sure to expect some further interesting and creative solutions for the future. One of the future events, which have already appeared on the ambush-marketing scene, is the FIFA World Cup 2010™. As organizers grow more and more aware of the problems that ambush marketing brings for the official sponsors and, therefore, for the organizers themselves, it is not surprising that they are bringing the issue higher in their priority lists and taking all possible actions to prevent the development of this phenomenon in the future.

This new challenge for sporting-events' organizers has led to a various strategies for hindering further ambush marketing attempts. Specifically with regard to the World Cup 2010, FIFA started implementing together with Spoor and Fisher an extensive strategy to register all variations of the event's name (2010 FIFA World Cup South Africa™) as a legal trademark (www.wipo.int). The campaign was launched in 2004 as soon as the host for the games was announced. Although this action is not visible to the broader public, it can have very visible implications.

In order to make their anti-ambushing strategy known to the wider public, FIFA had issued and made available a document called "FIFA Public Information Sheet (A Guide to FIFA's Official Marks, 2010 Fifa World Cup, FIFA Public Information Sheet, September 2008). This document addresses the potential ambushers by asking "non-affiliated entities [to] respect FIFA's intellectual property and conduct their activities without commercially associating themselves with the 2010 FIFA World Cup". The document aims to not only set the guidelines for fair marketing activities of the non-affiliated parties, but may also serve as evidence to support the legal basis in case of misconduct during and around the event.

FIFA has decided on a firm policy against ambush marketing and this is furthermore evident from the fact that they already started and won a court trial for ambushing the World Cup 2010 against a beer company in Pretoria, one of the venues for the 2010 World Cup™ games. *Eastwoods Tavern* had placed the text "World Cup 2010" below the main signature of their building and additionally produced and distributed materials including the text

* Fédération Internationale de Football Association (FIFA)

“Twenty ten South Africa” and the flags of the major soccer-playing countries (www.managingip.com).

The legal basis, which made this court trial possible, is Section 15A of the South African Merchandise Marks Act, which empowers the South African Minister of Trade and Industry to declare certain major and important sporting events as “protected events” (www.sportsbiznews.blogspot.com). This law has resulted from South Africa’s previous experience with sporting events featuring intangible-property violations (Ambush Marketing Legislation Review). As soon as the World Cup 2010™ obtained this status in May 2006 all related ambushing actions could be legally pursued, which is exactly what happened to Eastwoods. The consequences for Eastwoods were that they had to stop printed campaign and remove the banner with FIFA’s trademark from the signature of the pub, as well as pay FIFA’s legal fees for the trial.

This case serves and was already used as warning to companies who decide to try an ambushing technique for a FIFA event. An example is the scandal as described previously, where Dutch soccer fans had to watch a game against Ivory Coast in Stuttgart with only their underpants. Before entering the stadium, they had been wearing the “Leewenhosen” - part of an ambushing campaign by the Dutch beer company Bavaria. During the daily World Cup press briefing after the event the FIFA communications director Markus Siegler said “I will remind you that FIFA has already won a court case against a beer manufacturer who tried this sort of thing.” This statement, disturbingly reminding of a threat to the potential ambushers, once again describes FIFA’s new mind-set and their determination to allow no exceptions to the anti-ambushing rule.

The International Olympic Committee

The other major “player” in the future of ambush marketing will be the International Olympic Committee (IOC), who as shown previously have also had a long history with ambush marketing and are thus aware of the negative consequences it may bring for the sponsorship of their organizational activities. The two major upcoming events on their agenda are the Vancouver Winter Olympic and Paralympic Games 2010 and the London Olympic Games in 2012.

Similarly to FIFA, IOC* are trying to “do their homework” in advance of the planned events. For example, the organization team (VANOC) of the hosting

of the Vancouver Winter Games 2010 clearly states in the official booklet of the event that the protection of the Olympic Brand in Canada was a key condition for receiving the right to be the host of the games. In order for the VANOC to be able to fulfill their obligations to IOC, they have cooperated with the Government of Canada, which enacted the appropriate legislation — the Olympic and Paralympic Marks Act, whose purpose is to protect the brand of the Olympic and Paralympic Games in Canada. (Real 2010 Protecting the Brand, official IOC booklet)

VANOC is also putting effort in preventing unintentional ambush marketing. As part of the preparation for the Games, they have launched an educational campaign, encompassing the public and key business sectors. The aim of the campaign is to both to inform the latter about the opportunities, which the Winter Olympic Games offer, and in the same time to educate them on the legal boundaries of their marketing campaigns. (www.brandchannel.com)

Further precautions that the VANOC promises to take in their official booklet is ensure the rights of the entities, which have been using in the long-term marks currently protected as Olympic Games Brand. The work with these company is described as „grandfathering long-standing use“ and aims at helping the latter prevent unintended association with the Olympic Games. An example of a company falling into this category would be one, which has been using the word “Olympic” or other protected terms before 2nd March 2007, the date when the location of the 2010 Winter Olympic Games was announced.

In order to determine which cases fall under the “grandfathering long-standing use” category and to assess the level to which a particular questionable marketing strategy is an ambush marketing attempt, the VANOC has developed an extensive infringement identification process. It includes a case-by-case assessment of the level to which different brand-protection prerogatives of VANOC have been respected by the company in question (Fig. 1). If a danger of ambush marketing is identified, the case is handled on a one-by-one basis and may potentially turn into a court trial. (www.brandchannel.com)

Considerations for Acceptable Use		Rating 1 = Low Concern to 3 = High Concern	
Accurate Use		1	
Relevant Use			3
Commercially Neutral Use			3
Undue Prominence			3
Use of Olympic or Paralympic visuals		2	
Unauthorized Association		2	
Score	14		
Score = 6 - 8 Unlikely to Infringe	Score = 9 - 13 Potential Infringement that could require Enforcement Assessment	Score = 14 - 18 Likely to Infringe	

Fig. 1: The VANOC Anti-Ambushing Measures: a Brand-Infringement Evaluation Example

VANOC explains the existence of all these actions with the necessity to find sufficient financing; to protect the investment of the sponsors and other partners, so that their expectations are reached and exceeded; and to fulfill Canada’s obligations toward the Olympic Brand and IOC. Although such measures seem to outline a grim future for the ambush-marketing phenomenon, it should be made clear that most of the undertakings of IOC in this case would not have been possible without the high leverage which the latter has on the national governments and the high budgets, resulting in the ability of the Olympic Committees to invest large amounts into preserving the Olympic Brand.

The IOC actions regarding brand protection during and around the London Olympic and Paralympic Games 2012 follow the same patten as those for the Vancouver 2010 event. Once again the local committee has cooperated with the government, which resulted in the London Olympic Games and Paralympic Games Act 2006, which amends a previous regulation - the Olympic Symbol (Protection Act) from 1995. Furthermore, the clear determination against ambush attempts is again voiced with a statement on the web-site, which is similar to a threat, namely that the measures taken against brand infringement attempts “could include court orders for the seizure of unauthorized merchandise and the payment of compensation”(www.london2012.com).

Current and Future General Ambush Protection

Currently the major protection against ambushers is that of registered trademarks. The conditions of the latter differ depending on country and the only way to internationally protect intangible property is to register as a trademark in all countries, which is normally a costly and time-consuming activity.

Nevertheless, FIFA and IOC are readily going through the process for each of their assets, related to the different events they organize. For example, the official emblem of the South Africa FIFA World Cup 2010™, made public on 7th July 2006 is already protected in 153 different countries. This is in no way a new strategy, but the score of this activity compared to past events is considerably increasing. For example, the “laughing faces”, which was the emblem of the 2006 FIFA World Cup™, was protected in merely 124 countries. Also, the FIFA World Cup Trophy, which can be considered one of the most valuable assets of FIFA, because it remains unchanged over the years and different World Cups, is currently mark-protected in 134 countries. (www.highered.mcgraw-hill.com)

The second major source of protection is specialized legislation, which as previously discussed is often created in the hosting countries of the major sports events, like the Olympic or World Cup games. This type of protection is unfortunately only available to event organizers with enormous leverage on the local governments, but in some cases may extend to more general cases, when the specific law is turned into a more general legislation, as has happened in South Africa for example.

Additional protection can originate from the organizers themselves, who may undertake informational and preventive campaigns. In order to this, the organizers should be able to identify the influential factors, which they can control. These include defining who will be allowed to enter the event and educating, which companies will be allowed to sponsor the event, and what the procedure will be for the awarding of the right to use the events brand and other intangible assets. An example of how FIFA uses its own resources to protect its brand is given in their web-site under a page with the name “Rights Protection”. There they state that one of the most important ways to hinder ambushing is to well prepare the security, which will be servicing the event, and the customs authorities, responsible for the transactions around the event (www.fifa.com/aboutfifa). In this way the organizers can assure that non-sponsor companies will not be able to use the audience as a means for

ambushing, and will not be able to sell non-sponsor merchandise on the territory of the event.

Another example of how organizers can use their own brand as a guarantee against ambushing is through informational seminars for the local business. FIFA again is an appropriate example with their campaign for the 2006 World Cup™. In preparation for the event they hosted joint events with commercial associations like the chambers of trade and commerce, through which they were able to reach hundreds of companies from the area around the venues (www.independent.co.uk). Keeping the companies informed about the opportunities to legally profit from the event is a good means for both preventing unintentional ambushing and for warning the potential intentional ambushers of the negative consequences in case of trademark rights violation.

Despite all these possibilities for protection against ambush marketing, the phenomenon is unlikely to totally disappear because the cause for its existence does not lie in the lack of trademark protection, but rather in the fact that ambushers expect to gain awareness and other benefits for their own brand through using the opportunity of the event to interact with its current and potential customers. Thus, some argue that ambush marketing could only be prevented if the consumers are aware of the dangers of the phenomenon and accordingly react to this type of guerilla marketing attempts by refusing to buy the products of the ambusher (Fullerton, Sam. Sports Marketing).

Concluding Remarks

Ambushers

Although ambushers do indeed profit from the “free lunch” in the entire situation, they also are at thread to incur losses due to their attempt to take advantage of this guerilla technique. First of all, they risk that their interpretation of the laws proves different from this of the lawyers of the sponsorship company for a particular event and it is thus possible that while attempting to ambush, they actually get sued for violating the rights of the sponsoring company. An example of a company having lost trial for Ambush Marketing is the pub Eastwoods Tavern in Cape Town, discussed in a previous section.

Another theoretical risk ambushers take is that in the future it is possible that a large proportion of the customers may consider the company’s ways of

advertising unfair as soon as the former find out that the event does not receive anything from the ambusher, who profits from its popularity. Furthermore, in the future consumers will probably be better informed of the dangers of ambush marketing to the existence of sponsorship and, therefore, the existence of large events especially in the area of sports. Thus, it is possible that companies, which do ambushing today for the sake of short-term profits, may actually be hurting their own image in the long-term, and placing themselves in the middle of a future public boycotting.

Presently though, this does not seem to be a problem at all for the ambushing companies. On the contrary, some of them actually openly promote their unfair but legal marketing techniques, and claim to be leaders in creativity due to the fact that they are successful in saving millions of advertising dollars by finding ways to take advantage of a popular event, free of charge and without breaking any laws. An example is *Messages on Hold*, a UK company, which is probably the most widely known ambusher in the world. They have an entire “Ambush Gallery” page on their web-site, which is devoted to their ambush activities. There they openly claim that “this innovative form of brand promotion has secured [them] over a million dollars in free advertising over the years“.

Sponsors

If the ambusher succeeds in his intentions, the sponsor is the one who qualifies as a “loser”. The reason why many of the large companies worldwide make investments worth millions for a single marketing campaign is because they expect to gain competitive advantage ahead of their competitors. Supporting the important sporting events is a very attractive means of achieving this, because of the high number of visitors and viewers that these competitions tend to feature. By supporting the favorite event, team or player of its current and potential customers, a company is likely to gain brand awareness and recognition, and furthermore increase its sales around the event through association with popular figures, who are admired and followed by the audience.

Sponsors should logically be generally the “big losers” in case of ambush marketing, having paid humongous sponsorship fees and, nevertheless, being denied the desired associated advantages, due to the fact that their competitors misled the audience into thinking that the ambusher is the real sponsor. Nevertheless, in large successful events sponsors are still identified as “winners” as in the case of the 2008 Beijing Olympic Games. This is of

course in no way to be attributed to the ambushing company, but rather to good advertisement from the sponsor's side. In end effect, if the sponsors do their job well and put enough additional investment into marketing apart from the sponsorship fee itself, no ambusher could achieve wrong association through a legal campaign.

Organizers

The major danger for the organizers is that ambush marketing undermines the attractiveness of sponsoring. The mechanism for this is that sponsors make a particular, usually very high investment, of which they expect a certain return. In other words, they normally have concrete measurable indicators through which they can judge whether the investment paid out as well, or whether the whole project was a waste of money. If after the event they reach the second conclusion, they will be much less inclined to sponsor a future event. Furthermore, as soon as one big sponsor draws out of the investment opportunity, all others will get a signal that this investment opportunity may actually be a losing one, and will thus reconsider their own willingness to invest. In this way, it is not only likely that the event will lose budget and the will thus have to reduce its scope, but it is also probable that at some future point, the organizers will either have to find alternative ways for financing the event or will have to discontinue it for the future.

The only possible advantage that sponsors may reap from ambush marketing is that the greater variety of offers and promotions around the event may bring higher satisfaction to the consumer and attendees of the event. Thus the organizers are big losers in the long-term and small winners in the short-term.

Consumers

The other winner in the short-run is the consumer, because the availability of ambush marketers leads to a larger number of attractive offers, created exclusively for the event. In other words, around every world-class event, everyone generally attempts to use the constellation of people to temporarily increase profits. If the companies are able to directly associate themselves with the event, they expect higher profits and are thus prepared to offer more attractive promotions. For this reason, the consumer may be a winner in the timeframe during and after the event. Nevertheless, in case the event itself is harmed because of the lack of sponsors, the consumers will be denied the opportunity to view it; may have to pay a higher price for the entry tickets; or

may be forced to compensate for the long-term results of the ambush marketing in another way.

Conclusion

Ambush marketing is growing in volume and influence in the last decade, and much time and resources are invested by event organizers for the purpose of preventing it. Bearing in mind the leverage that big organizations like FIFA and IOC have with local governments of the countries where the World Cup or Olympic Games are hosted, it is very likely that in several years the appropriate legislation will be in place, which will provide enough protection for sponsors and organizers of such events. The danger remains that smaller events and their sponsors will receive less protection, but it is likely that they also profit as a side-effect of the new laws, created around the larger events. Furthermore, bearing in mind that most parties affected by ambush marketing can be identified as “losers” in the long term, it is likely that this practice will be discontinued in future. Nevertheless, the nature of ambush marketing – namely, being creative in finding ways to go around laws in order to “get a free lunch”, suggests that further such cases and issues will be discussed and further and more sophisticated form of ambushing are likely to arise in the future.

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