Organizational Change: Formulating, Implementing, and Sustaining a Fundamental Organizational Change in South American Central Banks Pilot Study Colombia

DISSERTATION
der Universität St.Gallen,
Hochschule für Wirtschafts-,
Rechts- und Sozialwissenschaften (HSG)
zur Erlangung der Würde eines
Doktors der Wirtschaftswissenschaften

vorgelegt von

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aus Kolumbien

Genehmigt auf Antrag der Herren

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Dissertation Nr. 2766

ACKNOWLEDGMENTS

My heartfelt thanks to my parents for their orientation as well as their permanent motivation and concern about my projects. Undoubtedly, such an effort on their part has been essential to the successful attainment of my goals in life.

My gratitude for the loving support, and dedication of my wife Patricia, my daughter Mónica and my son Sergio because together, as my family, they have been witnesses to my professional development and the main actors in the implementation of my career.

My great appreciation for Professor Dr.Martin Hilb´s enthusiasm and experience that have been key factors to structure and nurture a complex Doctoral Thesis such as this document.

This dissertation is dedicated to all the people who have supported, by any means, the development of this doctoral document.

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Introduction

1. Research Problem

Currently, a trend is under way to change the design of organizations. Today, business leaders are facing the complex task of leading their organizations and even their countries into the future. A tendency aimed at stressing opposite values. Decentralization, involvement, and personnel development are believed to be better means to capture the essential value of all organizational coordination and productivity. For instance, cultural change has produced a workforce that virtually demands being involved into the life of the organization. This new organization form is horizontal rather than vertical in its basic shape. It results from the elimination of layers of management and the delegation of more responsibility onto the employees. In this sense, the whole quality management movement has been largely responsible for this new shape of organizations. This dissertation is focused on the challenge of formulating, implementing and sustaining a fundamental change in Central Bank Organizations in South America. A holistic and integrated framework for thinking about the process of formulating, implementing, and sustaining a fundamental change in complex organizations such as the Central Bank of Colombia was developed. To this end, research on several fields has been conducted. Subsequently, this framework was empirically validated in a single, in-depth case study of a transnational corporation. This chapter explains the practical and theoretical background of the research problem, the research objective and approach, and the key concepts underlying the theoretical framework. Furthermore, this thesis was validated with the Central Bank of Colombia as a pilot project.

1.1. Practical Background of the Problem

According to Beer (1997), competition, globalization, and continuous change in markets and technologies are the principal reasons for the transformation of organizational structures and human resources management. Additionally, a revolution in capital markets has given shareholders a more powerful voice and has made possible for them to claim a larger share of the corporation's resources. As a consequence of these forces, organizations all around the world are finding themselves in the middle of a revolution in the way of organizing and managing people that will continue well ahead into the twenty-first century. "A flatter, less bureaucratic, less hierarchical, faster, and more responsive organization is emerging as the model for the future. In such an organization people will be employed in a more cost-effective manner". In the perspective of the Central Bank, the organization will have to enhance a number of capabilities and turn them into the source of the Bank's competitive advantage. For a high level of:

- Coordination across functions, business units, and boundaries.
- Employees' commitment to continuous improvement.
- General management and leadership competence.
- Creativity and entrepreneurship.
- Development of open communication.

In order to acquire the above capabilities, an organizational change must realign policies and practices with the new competitive realities. The Central Bank must realize that downsizing is not enough. The implementation of new strategies requires fundamental changes in organizational behavior. Leaner organizations are not necessarily more effective. In fact, recent research suggests that when cost reduction is the major drive of change, company performance is not enhanced in the long run (Nohria, 1997). Looking ahead, the Bank considers two fundamental and specific processes that can be fundamental for the completion of future strategies:

First of all, in order to be successful, the organization believes it is essential to link the employees to the organization's strategic management process. Second, the entity considers important to develop a Human Resources strategy to support the organization strategy. Whatever development programs, policies and practices are used in the organization, they must be aligned with the organizational mission and, most important, they must be supported by management as value-added activities, not perceived as extra work assignment or as human resource initiatives.

According to Tushman, Reilly, and Nadlen (1989), there is a definition of organizations that highlights four key features: organizations are social entities composed of people;

organizations are goal-oriented; organizations are structured; and organizations are open systems with identifiable boundaries. These issues come under the heading of organizational governance and control. Specifically, those mechanisms organizations use in order to have members perform the desired tasks that help the organization achieve its goals. One should remember that the definition emphasizes that organizations are composed of people.

When an organization assembles a number of people, a problem managers may face is how to ensure that this diverse group of people is engaged in activities that contribute to the achievement of organizational goals. How do owners create control systems that maximize the effectiveness and efficiency of the organization? How do owners make certain that employees do not loaf on the job, steal, or otherwise engage in counterproductive behaviors? Or, how does an organization ensure high-quality input from its employees?

According to Ryan (2000), organizations and work will change. They will change because everything around them is changing. They will change because they have to. We should not be surprised. Work has changed before in very dramatic ways. There was a time when the majority of the population worked on agriculture . Those who did not work in farms usually lived in small towns and had a craft (not a job) that they learned as apprentices from their masters. That world changed forever with the advent of the Industrial Revolution. What began with a move away from an agrarian economy ultimately led to Henry Ford’s assembly line. And whatever was known about productivity and work systems was challenged and ultimately improved by the need for mass production during World War II.

Thus, change is not new, but it may feel new because its pace has increased so much. We can blame that on the Information Age. Change was always slow in the past primarily because it took so long for information to get from one place to another. That is obviously no longer true. With e-mail, cell phones, pagers and more, we can communicate with anyone at anytime even when we are 30,000 feet above the earth in a jumbo jet. A smaller world; work is now based largely on ideas, not on tasks; ideas are the currency of the new economy; a workforce that can work anywhere and must work almost constantly to keep up.

From a practical point of view, there is a clear need for an integrated and holistic framework to help Top Management think about how to formulate, implement and sustain a fundamental change in complex organizations such as the Central Bank of Colombia.

1.2. Theoretical Background of the Problem

There are several researchers who have realized that development in the area of Strategic and Organizational Change is still in a preliminary phase. A related problem has been the lack of integration between research in different fields. Even though the complexity of the Strategic and Organizational Change process implies holistic and integrated concepts, these have not yet been developed. Furthermore, there has also been a lack of systematic scholarly research in the fields of strategic and organizational change.

In fact, there is a dilemma in terms of Organizational Change. Organizations face it with respect to planned change. On the one hand, organizations desire change in order for them to remain competitive, to adopt more effective and efficient means of operation, and to remain in harmony with their environments. On the other hand, organizations often resist change because of their desire for relative stability and predictability[1].

Organizations must have stable outputs, predictable costs, and protection of their financial integrity. One group of authors on organizational change have stated that "successful organizations have an inherent drive toward stability and increasing rigidity."[2] However, these stability and rigidity may prevent an organization from learning about its environment and adapting to changing conditions. A key question thus arises: can the organization meet the needs for change and responsiveness while maintaining enough stability to prevent disruption of operations?

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[1] *Bill McKelvi and Howard Aldrich. "Populations. Natural Selection and Applied Organizational Science". Administrative Science Quarterly 28 (1983): 101 - 28*

[2] *Michael L. Tushman, Charles O'Reilly and David Nadler. The Management of Organizations (New York: Harper and Row, 1989), 461.*

The organization must find its place along the following path:

Stability	*Rapid change*
Predictability	*Unpredictability*
Staleness	*Innovation*
Familiarity	*Unfamiliarity*
Boredom	*Enervation*
Certainty	*Uncertainty*
Atrophy	*New strenght*

An organization that maintains the status quo may find that it has a great deal of stability and familiarity, but also that the status quo generates staleness, bore-dom, and atrophy. Change can bring forth new challenges, new markets, and new technology, however, may also imply a source of instability, uncertainty, and unpredictability. Finding the proper point on these continua where the desirable and undesirable consequences of change are at balance is a critical challenge for managers. In the study of new product and process innovations, researchers typically distinguish between incremental (minor) innovations or changes to existing conditions and, at the other end, radical (major) innovations or changes[3]. Choosing the right point is not an easy task, and there is no one single right answer for all organizations. Such factors as the nature of the organization's surroundings, the people in the organization, and the existing culture, to name but a few, have differential impact on how much change an organization needs and on how an organization manages change. According to Gales, Tiernry, and Boynton (1995), the process of changing an organization may be a complex one and involve many people, large amounts of organizational resources, and a great deal of time. Nonetheless, in many respects, organizational change is much like the processes associ-ated with any generic decision-making process.

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[3] *Lawrence Gales, Pamela Tierney and Andrew Boynton, "The Nature of Information Ties and Development of Technology: An Integration of Information processing and the Strenghtof Weak Ties", in Advances in Global High - Technology Management, vol. 5, Part B, Ed. by L. Gomez Mejia and Lawless (Geengwich, Conn: JAI Press 1995), 3 - 29.*
Lawrence Gales, Pamela Porter and Dina Mansour-Cole, "Innovation Project Technology, Information Processing and Performance: A test of the Daft and Lengel Conceptualization", Journal of Engineering Technology Management 9 (1992): 303 - 38.

Aldrich (1999), uses evolutionary theory as an overarching framework to explain how organizations and environments change over time. Managers can benefit from *Organizations Evolving* with a new perspective on their organizations and the environment in which they operate. In Aldrich's framework, four generic processes are necessary and sufficient for evolution to take place:

First, variation from current routines and competencies or organizational forms must occur. This can result from intentional attempts to generate alternatives and to seek solutions to problems, including for example, planned experiments and probes into the future, or from blind variations generated by surprises, mistakes and idle curiosity.

Second, these variations must be subject to selective differential elimination. This could arrive from market forces, competitive pressures or within-organization selection forces. These forces could often conflict with each other and thus lead to problems, such as a mismatch between market forces and internal selection criteria. Aldrich cites the example of Facit AB, a Swedish company that manufactured and sold business machines and office furnishings. In an era when the market was moving from mechanical to electronic calculators, Facit AB's management mistakenly continued to promote and reward engineers who were proficient at designing mechanical calculators.

Third, the positively selected variations must be retained, preserved, duplicated or otherwise reproduced; otherwise there are no organizational continuity or memory. Valuable variations are lost if there are no retention mechanisms operating.

Finally, all entities are subject to the Malthusian struggle for scarce resources. These four processes operate simultaneously within all social units (industries, organizations, and organizational competencies) and across all levels of analysis (groups, organizations, populations and communities).

Aldrich argues that to understand the historical evolution of organizations one must rely on examining their emergence. Most research, he asserts, is focused on the less than 20,000 publicly traded corporations, which account for less than one-half of one percent of all organizations using a corporate form. By focusing on the oldest and largest organizations we "miss the process by which organizations aged, evolved through periods when competitors were eliminated, and developed the distinctive differences that made them more hardy than their peers."

Aldrich argued that before an organization can succeed a foundation must emerge from the actions of many different organizations, institutions and governmental bodies. This foundation is followed by a lag before the commercial opportunities are exploited. Viewing organizations though the lens of evolutionary theory helps both scholars and managers. For the scholar, the theory is a general process that encompasses many other theoretical perspectives and raises interesting questions and propositions. For the manager, it helps tie the past to the present: current practices and structures that were previously adaptive may no longer survive in today's environment. Alternatively, practices and forms that offered no survival advantage in the past, but nevertheless persisted because they were not previously selected out, may lead to future shifts in organizational fitness.

This evolutionary process shows no sign of abating in today's fast paced environment; if anything, it should become even more relevant to managers and researchers. In the competitive struggle for the attention of students of organizations, the Darwinian concept outlined in *Organizations Evolving* is a variation that deserves to be selected and retained.

From a theoretical point of view, there is first of all a clear need for general theory development in the field. Secondly, there is a need for concepts and frameworks that integrate separate fields of study, and, finally, there is a need for systematic empirical research. The goal of this dissertation is to contribute to fill in these gaps in the currently available knowledge.

2. Research Objective

The overall objective of this Doctoral thesis is to contribute, both theoretically and empirically, to the understanding of how to develop, implement and sustain an essential change in Central Bank organizations in South America as a way to make the transition from underdevelopment to development, taking into consideration that Central Banks *play a major role in terms of economical and social development*. Specifically, this thesis has three main objectives:

1. *Theory-building*: the purpose is to build a holistic and integrated theoretical framework on how to develop, implement, and sustain substantial change in Central Bank organizations. The framework will gather and integrate relevant research from several fields of study, including strategic management, organizational theory, change at work, organizational change and business reengineering processes. The bibliography, and literature review is focused on American and European papers devoted to strategic management and organizational theory.

2. *Empirical Evidence*: In order to provide a very structured and consistent proposition, it is necessary to validate the theoretical framework in a systematic empirical study that includes a diagnosis of the current state and a systematic and objective assessment of needs.

3. *Implications for Theory and Practice*: to analyze and explain the implications of the theoretical framework and empirical study for both academics and managers.

Finally, the research objective should answer the following questions:

- *Why do we need to change?*
- *Why is change necessary?*
- *What is to be expected of change?*
- *What will the benefits of change be?*
- *What disadvantages or problems might arise and how will they be handled; and;*
- *What behavior changes will be needed in programs, tasks, and activities?*

3. Methodological Approach

This doctoral thesis views the organization as a complex, open and, social system. As a system, the organization is composed of multiple parts; hence, changes in one part of the system will result in changes in other parts of the organization.

3.1. Assessment of Needs

An assessment of needs is crucial and its goal is the establishment of the foundations for organizational change and a development model for the Central Bank of Colombia. First, it will identify organizational needs that will subsequently, serve as a platform that meets not only those demands, but that also defines consistent ways to link current to future organizational needs that constitute the foundation for organizational success in the long-term.

The following are the surveys that the Central Bank should take into consideration concerning the assessment of needs being offered herein:

Diagnosis Survey of Divisional Training Needs

This survey has the following objectives:

- To identify what is the director's view on the mission of the Division.
- To understand the challenges of the Division both in the short- and the long- term.
- To detect current and future changes in connection with the Division's structure, functions, processes, norms, policies, etc.
- To identify the behavior of the work teams that could potentially affect the development of activities.
- To identify styles of management and their influence on the development of activities.
- To spot results of the Division's performance and achievement of goals.
- To get acquainted with training needs on the basis of the above-mentioned items.

Diagnosis Survey on Employees' Training Needs

This survey should include the following objectives:

- To determine the requirements of managerial abilities, technical and interpersonal communication skills required for Division's employees appropriate performance taking into account the goals of the new organization. Those requirements must be established bearing in mind priorities and the level of expertise expected.

Survey on the Perception of Current Divisional Services

- This survey should be addressed to both employees and external clients of the Division. It will attempt to weigh the perception of both clients and employees about the current service on the part of the different divisional sections as well as the services that could be rendered in the future.
- This survey provides facts to identify present and future training needs of employees who currently have functions related to the item above.

Divisional Climate Survey

- This survey should be addressed to all of the Division's employees with the purpose of finding out their perceptions regarding the workplace environment.

Training and development is one of the fundamental factors of the administration of talent (Human Resource Administration), vital for future organizational change. The purpose of a training program should be to promote continuous learning that contributes to the optimal performance of organizational activities, and, at the same time, fosters appropriate personal development among employees.

A training program should be the responsibility of directors of each Division, with HR advising, guiding, and encouraging the program as a facilitator. To achieve better results, both efficiently and effectively, it is necessary to look at the training program bearing in mind the following steps:

a) Diagnosis of needs
b) Design of the various stages of the program
c) Execution of the program
d) Evaluation

3.2. Multiple Regression Analysis

In this Doctoral Thesis, a multiple regression analysis has been used to detect possible gaps in the consideration of the performance appraisal system that is vital for any organizational change or a development program to be proposed for the future. Performance appraisal could be just one of several human resources and organizational functions to be changed in the Central Bank of Colombia. *The strategy is to look at the Bank as a whole and see what best fits the Bank's needs to successfully achieve the goals of the organizational change. It is important to link organizational goals with personal goals. This practice can support organizational change*.

3.3. Case Study

Finally, it is clear that research, in terms of case studies, will also be essential because we may not only learn from the said cases but, at the same time, have the opportunity to exchange ideas and experiences with the companies and countries selected.

4. Definition and Description of Key Concepts

4.1. The Restructuring of Organizations

The new ideas about how organizations should be managed have led to widespread and profound changes in the structure of companies, changes that have had immediate effects on the employment relationship. According to Bowman and Singh, 1993, corporate restructuring generally refers to substantial change in a company's financial structure, organizational form, or both; financial restructuring includes changes in ownership, management buyouts, and divestitures.

Organizational restructuring includes decentralization of authority, development of teams, and downsizing of employment. Although separate in principle, the two components are more frequently related than not. At times, the financial component can drive organizational changes; at other times, the organizational component drives financial changes.

By almost any measure, the period from the mid-1980s to the mid-1990s constituted a watershed in the structure of U.S. business. While employment among the 500 largest service companies grew from 9.3 to 11.3 million between 1982 and 1993, employment among the 500 largest manufacturing corporations dropped from 14.4 to 1.5 million. In 1982, manufacturing jobs constituted 61 percent of the Fortune 1,000 employment ranks; by 1993, their share had declined to 50 percent of the said figure. The number of different markets in which large manufacturing companies attempted to compete also slumped. The breadth of restructuring among large companies can be seen in two surveys of large companies on their 1991 and 1992 restructuring experiences (see Figure 1).

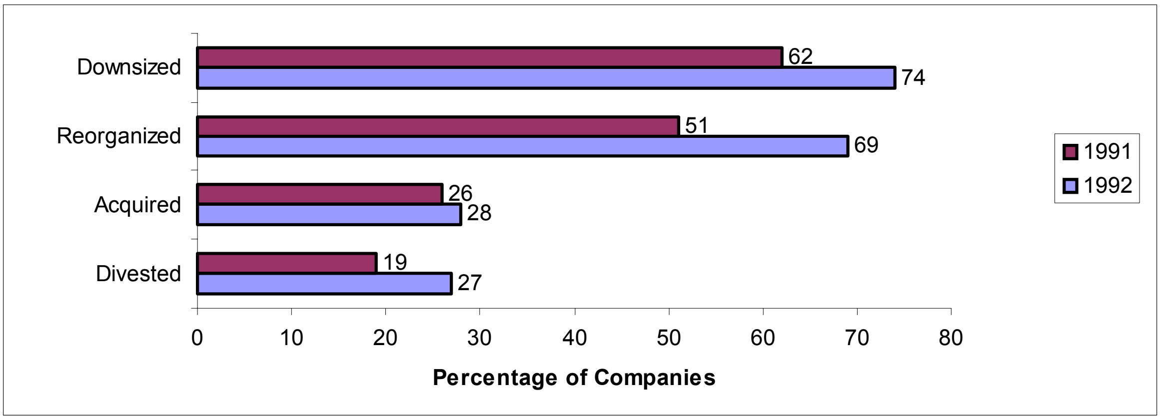

Figure 1: Percentage of large companies restructured in 1991 and 1992. Source: Wyatt Co., 1993.

Of the 531 companies surveyed that had downsized in 1992, nearly the same proportion had reorganized; besides, one quarter had divested, merged, or had been acquired.

According to Armstrong (2001), companies restructure for many reasons, including:

- Cutting costs
- Improving competitive advantage
- Sharpening strategic focus on key accounts, core products, and new technology
- To better leverage talent.

“The more you change, the more you stay the same." Sources of cost inefficiencies and strategic misalignment are often rooted in the culture and habits of both leaders and followers. Their line of attack may carry the seeds of the same weaknesses they seek to correct. Social systems are complex and self-correcting, like thermostats set on one temperature. The culture (and often inadvertently its individual members) resist change rather effectively. Sometimes the most important changes are the ones least contemplated, such as seeking a new CEO, a new chairman, even a new board of directors.

The goal of cutting costs according to Armstrong, is often driven by an immediate, even urgent need for change, particularly in public companies concerned with their Earnings Per Share, share price, and vulnerability to takeover. Unfortunately, this immediate problem may be the outcome of long-term trends in the industry that have changed the rules of the game, leaving a once-viable business model floundering. Typically, once-successful organizations do not scrap their business model at the first sign of trouble, nor should they. However, it is not uncommon to see organizations rely too heavily on old tactics that, rather than correcting the problem, actually aggravate it. This path of action and reaction sets the company on a viscous downward cycle. By the time the truth is accepted -- that the old solutions no longer work -- the changes required may be more than can be absorbed.

Companies in the U.S. in particular are quick to cut costs, especially by reducing their workforce. While this ruthless nimbleness may allow the company to limit its short-term losses, it rarely creates competitive advantage in and of itself. Many sage consultants observe that you don't save yourself to growth. Typically, the most successful changes require more than mere cost reduction. The best companies combine strategic refocus with organizational realignment in roles, processes and structure, thereby rationalizing a targeted reduction in force.

Organizations are often not well informed about their own talent. The talent they need most during restructure is often invisible to senior leaders. These people are found in the middle levels; they are found in outside fields that may not be considered; they show a different profile of style and talent than what the senior leaders are used to appreciating; and they come from different angles and experiences than those that shaped the last generation. It takes a bold leadership team to reorganize a company around the young Turks, odd birds, and raw potential they actually need to call on to lead new change.

4.2. Organizational Redesign

The new approaches to management, com-bined with the pressures from competition and shareholders, have led companies toward new ways of self-organization. Organizational redesign can be seen as an encompassing effort to build a more productive mechanism. The paths of organizational restruc-turing include downsizing and work redesign in addition to fresh principles of organizational design. In a combined form, the aforementioned changes have attracted such labels as the horizontal corporation to describe the associated function in management structures.

Even if the organizational form is beginning to find its way into corporate organization structure forms, it will probably not completely replace the vertical, functional structure, at least in the foreseeable future. The resulting firm will probably be a hybrid in which managers manage process and team work.

It is important to realize that there is a movement in the design of organizations that could revolutionize not only the way that structures are shaped, but also the manner of thinking and working therein. This means that a transition from vertical to horizontal organization, or a mix thereof, is becoming evident. It is being recognized that it is fundamental to build a strategic organization capacity in terms of technology, teamwork systems and learning organizations. Such strategic arrangement will allow organizations to get a sustainable competitive advantage. At the core of the new systems are changes in employees´ performance. The most typical innovation is the introduction of work teams. In many instances, a management employee leads these teams, but that person’s role has changed from supervisor to coach or facilitator. In other instances, the teams are self-directed. In both cases, at the core of the idea of teams is the requirement that employees take responsibility for a set of tasks, and answer for the team’s productivity, that workers be broadly skilled, and that an element of job rotation be present.

According to Capelli (1997), in many “transformed companies”, employees are involved in aspects other than direct work activities. The most common example is problem-solving groups in which employees work in groups, often consisting of cross-section of employees and hence, to some extent, obviating traditional managerial/non managerial distinctions. These groups address problems such as production techniques, financial services, health and safety and quality issues. In the most extreme form, these groups can take up topics that in the past have been seen as clearly “managerial”. On the other hand, it is frequently the case that organizations that implement innovations do so as part of broader efforts to transform themselves. These efforts include flattening organizational hierarchies and renewed emphasis on quality and customer satisfaction. According to Capelli, both of these objectives are consistent with empowering workers.

Organizations that implement these changes in work organization typically transform other aspects of their human resource systems as well. The two most consistent changes are increased use of performance-based compensation and higher levels of training and development. To the extent that employees assume greater responsibility and exercise additional discretion, they need increasing preparation. Companies also vary in their approaches toward unions. In some settings, the new work systems are implemented in cooperation with unions.

The pressures of new ideas on organization management have led to comprehensive and profound changes in the structure of companies, changes that have had immediate effects on the employment relationship. Corporate restructuring generally refers to substantial form. Financial restructuring includes decentralization of authority, development of teams, and downsizing of employment.

4.3. Organizational Change

Most approaches to organizational change attempt to modify or change portions of the organization. Even attempts to change the culture may only modify components of the organization – changing values, norms, beliefs, and expectations. It is true that some of these changes can be quite radical and may result in more efficient and effective organizations.

Change should be based on organizational learning. Such a change offers a different perspective on change and organization that addresses the fundamental nature of the

Central Bank organization. The organizational learning perspective seeks to create an organization that is capable of continually monitoring the environment and adapting to varying conditions. The organizational learning framework proposes that organizations are made up of people who think and learn; nonetheless, the organizational learning framework goes a step further. Organizational memory and learning are more than just the aggregate of individual memory and learning. Organizations *have a memory of what works and what does not work as well as a rich history*.

This memory is stored in a variety of forms including documents, policies, procedures, reports, products, services, databases, and most importantly, in the minds of employees of the organization – sometimes referred to as human capital. The fact that people carry around a great deal of know-how in their minds, often in the form of tacit knowledge. Most managers underestimate knowledge. This fact sometimes becomes evident when organizations undergo downsizing and let go employees with key tacit knowledge relevant to the organization. Several organizational authorities have written extensively about what constitutes organizational learning organization[4].

4.4. The Resource-Based View of the Firm

The Resource-Based View of the Firm has emerged as a vital model in the field of strategic management. In this matter, the notion that firms are fundamentally heterogeneous regarding their resources and internal capabilities is a requisite component in the field of strategic management. The classic approach to strategy formulation begins with the appraisal of organizational competences and resources. Those competences may become the basis for competitive advantage if they are matched appropriately to environmental opportunities (Andrews, 1971; Thompson and Strickland, 1990).

The above-mentioned theory has deepened the understanding regarding how resources are applied and combined, what makes competitive advantage sustainable, what the

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[4] *Peter Senge, The Fifth Discipline: The Art and Practice of the Learning Organization (New York Doubleday Currency, 1990).*
Henry P. Sims and Dennis A. Gioia Jr., The Thinging Organization (San Francisco: Jossey-Bass 1986).
David A. Garvin, "Building a Learning Organization", Harvard Business Review 71 (1993): 78 -91.
Brian Dumaine, "Mr. Learning Organization", Fortune (October 17, 1994): 147-157.

nature of rents is and what the origins of heterogeneity are. There are several authors, such as Penrose (1959), who have influenced this view. Other contributions include Lippman and Rumelt (1982), Teece (1980, 1982), Nelson and Winter (1982), and Mahoney and Pandian (1992).

According to Peteraf (1993), a major contribution of the resource-based model is that which explains long-lived differences in terms of firms profitability that cannot be attributed to differences in industry conditions. The firms are seen adopting strategies that their resources can support. The model may prove useful to managers seeking to understand, preserve, or extend their competitive advantage. For Barney (1996), a firm may gain expectational advantages by analyzing information about the assets it already controls. Other firms will not be able to mimic the said strategy due to the fact that assets are imperfectly mobile. Because of this aspect, for which the transaction cost of market exchange is high, the resource-based view theory of the firm has important implications for corporate strategy as well as for the business strategy.

In view of a single business strategy, the model may help managers differentiate between resources that may support a competitive advantage from other less valuable resources. Furthermore, it may assist those administrators to decide whether to purchase a new technology license or develop it internally. If the technology is imperfectly mobile or it cannot be communicated adequately to others because of the risk of revealing proprietary information, it should be developed internally. The manager would have a clear understanding of whether his situation meets necessary conditions for a sustainable competitive advantage.

Amit and Schoemaker (1993), developed a behavioral view of strategic assets and offered some prescriptive advice on how to target, develop and deploy those assets. A firm should have the capacity to deploy resources using organizational processes in order to achieve a specific target. Wenerfelt (1989), includes some guidelines to help managers identify their critical resources and decide how to apply them. Stalk (1992), made the link between capabilities and business processes in the way that if capabilities can be thought of as a business processes, then a business process design can make an important contribution to the resource-based view of the firm. The theory-based view of the firm has strong implications for single-business strategy, for corporate strategy as well as for theorists and practitioners.

4.5. Integrating the Evolutionary and Strategic Theories of the Firm

Andrews (1980), characterized the role of a strategist as one of finding the match between what a firm can do (organizational strengths and weaknesses) within the universe of what it might do (environmental opportunities and threats). Economic modes of thought have had profound influence on thinking in the strategy field, specifically in terms of three developments that have contributed to the strategic management research: First, the modifications to the industrial organization economics through the use of game-theoretic entry-barrier models; second, the contractual approach to economic organization associated with R.H. Coase, Oliver Williamson, and third, the attempts of economists to address, in evolutionary terms, the consequences of essential diversity among firms.

Andrews explored potential complementarities between evolutionary economics and an emergent stream of work in the business strategy field, called the resource-based view of the firm. One important contribution of Andrew´s Book is an understanding of how one or the other could enhance both of these views of the firm.

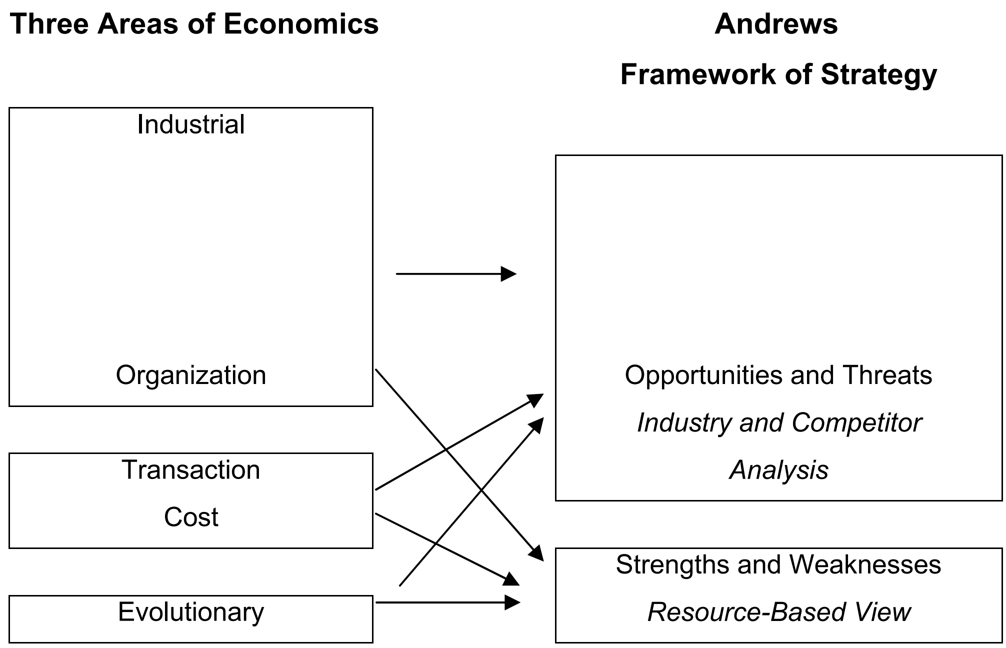

Table 1. Source: Andrews. Integrating the Evolutionary and Strategic Theories of the Firm (1980).

One of the most important contributions in terms of development is that which recognizes differences across firms. The evolutionary approach is based on the question the differences come from, focusing on the analysis of organizational capabilities to understand firm behavior. The added value of this approach is precisely to research in terms of forces unexplored before. Richard Nelson (1991), provided a description consistent with the evolutionary and managerial uses of a strategy:

"*The strategy connotes a set of brand commitments made by* a firm that defines and rationalizes its objectives and how it intends to pursue them. *Some of this may be written down, some may not be, but it is in the management culture of the firm*".

The evolutionary approach shares common space with the resource-based approach in ways that other approaches do not. This is an essential point, the resource-based and evolutionary approaches fundamentally take an efficiency approach to firm performance, in contrast to the market power perspective found in many entry deterrence models. According to Conner (1991), the resource-based view tends to see performance differences across firms as the result of differences in efficiency, rather than differences in market power. In explaining these differences, resource-based theorists tend to focus on resources and capabilities that are long-lived and difficult to imitate. The difficulty in assessing the value of resources might be due to the fact that it is impossible to measure it in isolation. As Porter argued, resources are valuable only if they "allow firms to perform activities that create advantages in particular markets". Evolutionary theory essence plays a powerful role in larger established organizations. In contrast, when the set of resources is small, the resource-based view has little predictive ability.

5. Central Bank of Colombia

5.1. Organizational Structure

The National Bank of Colombia has 2,504 employees, 1,641 of them in the headquarters in the capital city of Bogotá, and the rest in 28 large cities around the country. The organization has 22 levels that vary depending on "Know-how", "Problem-solving", and "Accountability" necessary to perform a job. Level 22 represents top positions in the organization. Typical employees from levels 12 to 22, are highly educated and make most of the important decisions at the Bank.

The levels of the organization are determined according to the HAY system, that defines points taking into account "Know-How", "Problem-solving", and "Accountability" needed to perform a job. The following is the classification of employees by points:

General Directors

1136 - 1500 Directors - Second Grade

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568 - 860 Directors of Department – Third Grade

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375 - 494 Heads of Sections, 5 or more years of tenure and a master's degree

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247 - 327 Professionals with two to four-year tenure

142 - 215 Professionals with less than a two-year tenure

< 130 Unskilled workers

5.2. Central Bank of Colombia - Current State

The organizational structure of the Central Bank of Colombia is basically built on vertical management; the vertical structure is erected on the following principles:

- *Task_oriented Organization*
- *Vertical structure (Twenty two levels).*
- *High degree of specialization.*
- *Traditional performance appraisal.*
- *Traditional compensation system.*
- *Low-skill work force.*
- *Large control scope.*
- *High degree of formalization.*
- *Decision-making centralization.*

5.3. Dimensions of the Central Bank of Colombia as a Whole

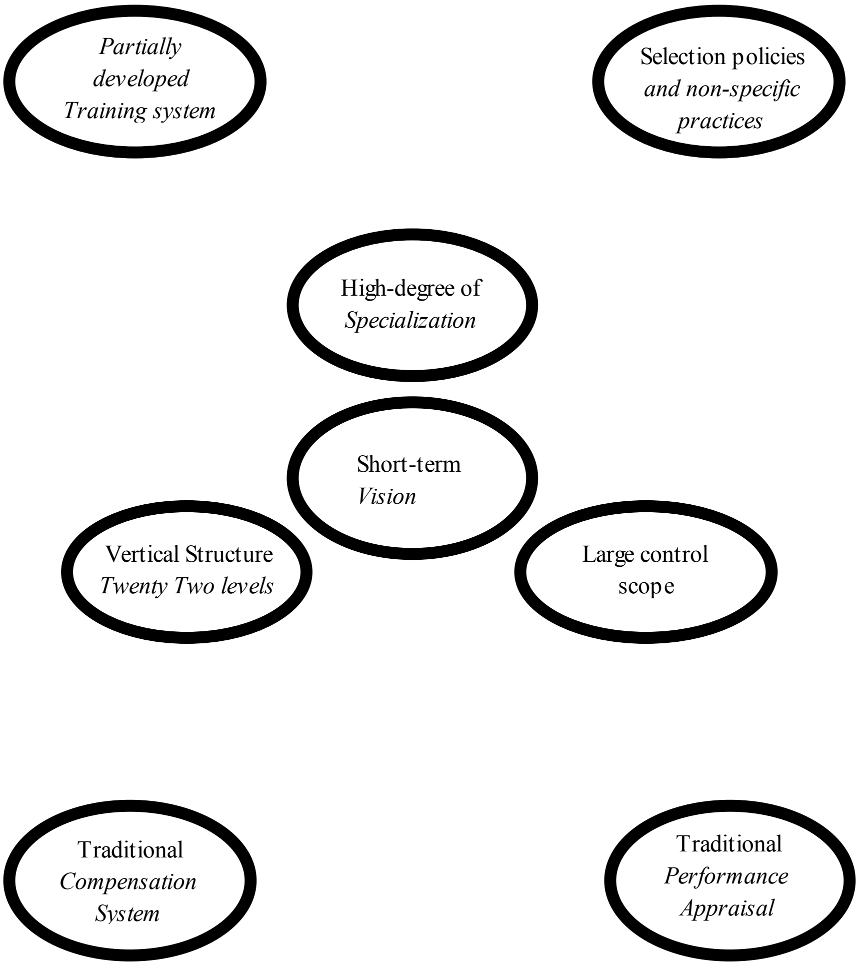

Figure 2. Source: Martin Hilb. A Human Resources Management Perspectiv(1997).

5.4. Corporate Personality Profile

Dimensions	*Non - existent (=1)*		*1*	*2*	*3*	*4*	*5*	*Highly Developed (=5)*
1.	*Mission / strategy*							
	(1.1)	*Energy for change (innovation)*		*X*				
	(1.2)	*Soundly based risk-taking*		*X*				
	(1.3)	*Quality standarts*				*X*		
	(1.4)	*Profit orientation (including cost-conciousness)*				*X*		
	(1.5)	*Costumer orientation*				*X*		
	(1.6)	*Long-term strategic thinking*		*X*				
	(1.7)	*People orientation*		*X*				
	(1.8)	*Public image orientation*			*X*			
2.	*Structure / systems*							
	(2.1)	*Streamlined operation (absence of bureaucracy)*	*X*					
	(2.2)	*Decentralization*	*X*					
	(2.3)	*Simplicity of organization structure*		*X*				
	(2.4)	*Shallow hierachy (few management levels)*		*X*				
	(2.5)	*Flexible planning*		*X*				
	(2.6)	*Participative decision making*	*X*					
	(2.7)	*Effective decision implementation*		*X*				
	(2.8)	*Constructive controlling*			*X*			
3.	*Culture / people*							
	(3.1)	*Team spirit orientation*		*X*				
	(3.2)	*Leadership by example*	*X*					
	(3.3)	*Common value system*				*X*		
	(3.4)	*Management of objectives and results*	*X*					
	(3.5)	*Open internal comunications*		*X*				
	(3.6)	*Intuitive (in - tune) management*	*X*					
	(3.7)	*Approachability of management*	*X*					
	(3.8)	*Recognition of efforts*			*X*			

The results of the Corporate Personality Profile, are based on a survey made to the Central Bank employees with a high job position. The survey was conducted in the year 2000, to 450 employees.

Table 2. Source: Martin Hilb. A Human Resources Management Perspective (1997).

5.5. Central Bank of Colombia – Future State

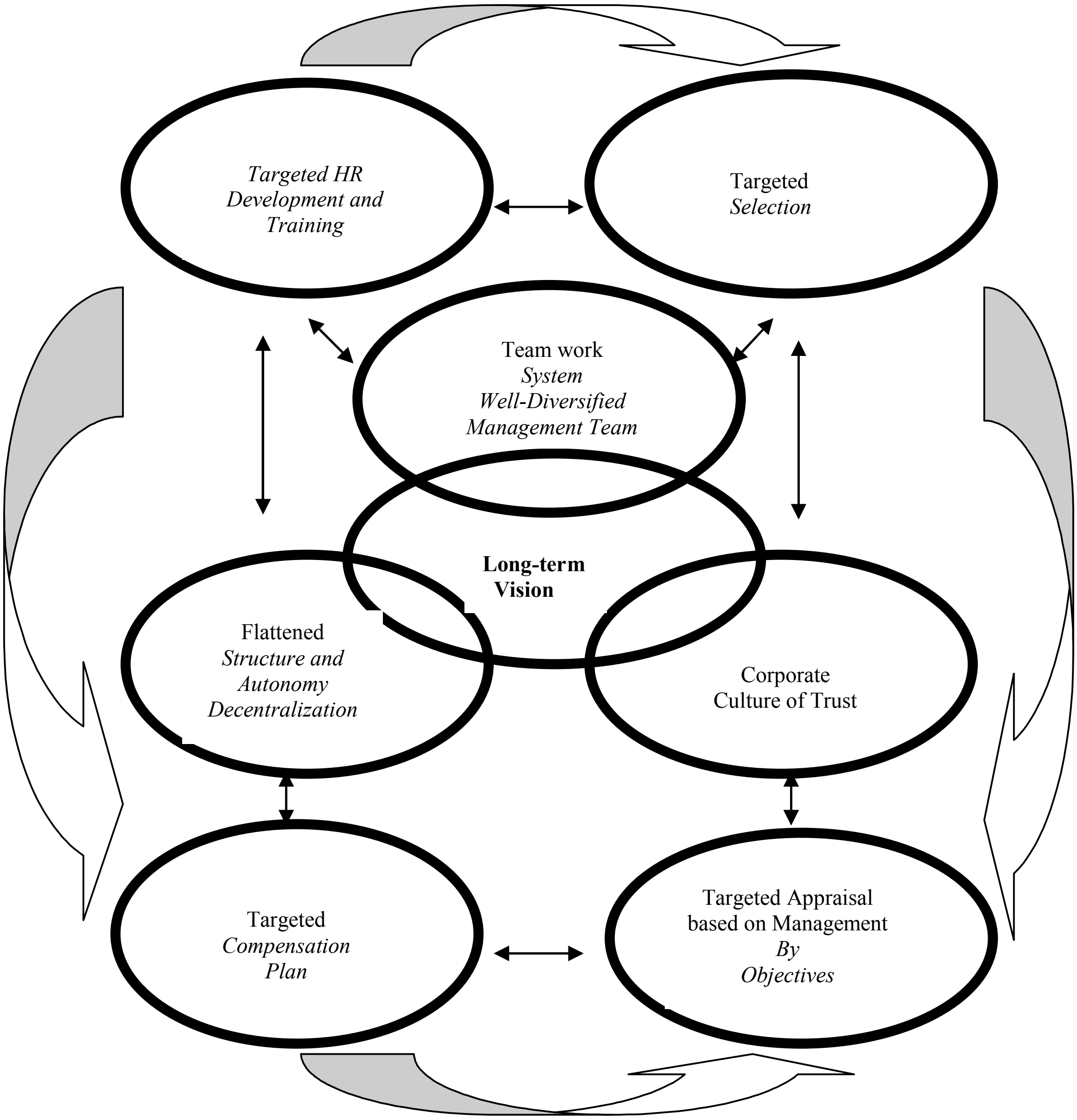

Figure 3. Source: Martin Hilb. A Human Resources Management Perspective (1997).

According to Byrne (1993), organization design should be built on lateral management rather than on vertical management. A flattened organization would be based on the following principles:

- *Organization around processes, not tasks.*
- *Flattening of hierarchy.*
- *Use of teams.*

- *Customer feedback to improve performance.*
- *Encouragement of team performance.*
- *Quality control optimization.*
- *Training and updating of all employees*

It should be pointed out here that companies have not yet abandoned the pyramid altogether. This is true not only for American companies, but also for many organizations around the world in which cultural patterns play an important role that makes these kinds of processes much more complex.

This chapter analyzed the practical and theoretical background of the research problem as well as that of the research objective on which this dissertation is based. Furthermore, some definitions and descriptions were provided considering the key concepts of the theoretical framework such as organizational change and redesign as well as the restructure of organizations, the resource-based view of the firm and the integration of the evolutionary and strategic theories of the firm. Finally, an analysis of the organizational structure of the Central Bank of Colombia was made in order to understand the main objective of this dissertation as well as the need of a substantial organizational change for this organization whose purpose is to serve as a basis for a fundamental organizational change for central banks in South America.

Chapter Two
Theoretical Framework

1. Agency Theory and Transaction Cost Economics

According to Berle (1932), Coase (1937), Fama (1980), and Williamson (1964), organizational economics is actually made up of distinct theories, of which the two major branches are, according to Fama (1980), Jensen (1976) and Eisenhardt (1989), agency theory, and according to Williamson (1964, 1991), transaction cost economics. Although these two theoretical perspectives are not identical, there is some overlap in both how they view the organization and how they view governance.

According to Oviatt (1988), agency theory regards the organization (or firm, as is often preferred) as *a series of contractual relationship between owners and workers*. Potential owners invest in firms to increase their wealth. This ownership may be through stock ownership in a publicly traded company or through direct ownership (e.g., proprietorship or partnership). Owners, also called principal, contract with managers and employees, also called agents, to produce goods and services. Because of a variety of factors, including basic human nature and the uncertain nature of some tasks, managers and other employees may engage in activities that are not conducive to owner's wealth-maximization. Instead, these behaviors may be directed at satisfying the particular goals and objectives of managers and employees. These counterproductive activities produce agency cost. Contracts, agreements that specify the exact duties and obligations of employees, are fashioned to guarantee that the agents perform as required. Those contracts must be written and monitored, all of which requires time and resources.

According to Williamson (1964), transaction cost theorists view the organization as a series of transactions. Transactions are exchanges of goods and services among individuals and organizations. The firm has transactions with suppliers, with labor, or with customers. Some of these transactions take place within the organization, and some take place across the organization's boundaries. Because of the varying degrees of uncertainty that exist in transactions, the people and organizations involved experience transaction cost in executing transactions. Some transaction costs, such as brokerage fees, service charges, and points on loans, are explicit. Other transaction costs, such as monitoring the performance of transaction partners, are implicit in a transaction. Transaction costs are an indicator of inefficiency in a transaction. The greater the transaction costs to a firm, the less efficient the transaction and the less wealth available to owners. Thus, owners of a firm seek the lowest possible transaction costs. In subsequent sections we investigate the sources of these costs and the governance mechanisms that are used to control transaction costs.

According to Hodge, Anthony and Gales (1996), there are important differences between these two theoretical perspectives, most of these differences being relevant to both researchers and theoreticians. The important similarity between these two perspectives is that both of them deal with how owners of a firm attempt to ensure that employees, suppliers, or contractors conduct themselves in ways that aid the organization in the achievement of its goals and objectives.

According to both perspectives, owners should seek organizational arrangements that maximize economic efficiency; that is, those arrangements with the lowest agency costs or transaction costs. According to Hesterly, Liebeskind and Zenger (1990), as a consequence of this emphasis on wealth enhancement through efficiency, agency theory and transaction costs economics are often labeled as economic efficiency views of organizations. Both theoretical perspectives discuss governance mechanisms that can be used to ensure goal-directed behaviors, to control behaviors inside the Firm, and to control the behaviors of transaction partners outside the firm. Thus, this dissertation recurs to both agency theory and transaction cost economics as essential theories that help design an integrated theoretical framework, and support adequately a fundamental organizational change for the Central Bank of Colombia and thus its feasibility of successfully implementing the proposal in the central banks of the region.

2. Organizational Change Models

The new approaches to management, combined with the pressures from competition, have led companies toward new ways of organization. Organizational change can be seen as an encompassing effort to build a more productive mechanism. The paths of organizational restructuring, for instance, include downsizing and work redesign, and fresh principles of organizational design, changes that in combination have attracted such labels as the horizontal corporation to describe the associated function in management structures. This chapter is focused on explaining the theoretical models that support the organizational change proposed at the end.

2.1. Axelrod

According to Axelrod (2000), Organizational change efforts have historically followed four models. In leader-driven change, the heroic figure, because of insight, charisma, and leadership skills, convinces a reluctant group of people to do something that they might otherwise not want to do. In process-driven change, consulting firms drive the change process with leaders serving as cheerleaders. In team-driven change, cross-disciplinary teams lead the change process, operating in a parallel organization with leaders again serving as cheerleaders. These models have largely given way in contemporary organizations to the change-management paradigm in which process- and team-driven change models are integrated as experts lead the change process with employee input and Leaders serve as champions.

I. *Change-management process and assumptions*. In the change-management paradigm, a sponsor group of senior leaders initiates the process, champions the effort, and provides founding. A steering committee of people representing a cross-section of the organization from all levels is responsible for day-to-day management of the change process. Cross-functional, multi-level design groups develop the specifics of the change process. Many expect the cross- functional, multi-level change-management paradigm to make organizational change possible by increasing employee support and commitment. These anticipated benefits are based on several assumptions. First, diverse team membership with key decision-makers provides a vehicle for overcoming organizational red tape and is the most efficient governance structure for the change process. Second, populating the teams with the organization's "best and brightest" assures high quality solutions. Third, cooperative team behaviors learned by team members will be transmitted throughout the organization. And, finally, consensus decision-making by the teams assures both high-quality solutions and buy-in of key organization members.

Axelrod argues that the change management paradigm has failed to fulfill its promise of increased employee support for and commitment to organizational change. The change-management paradigm allows the few to decide for the many, isolates leaders from organization members, separates the design process from the implementation process, adopts the parallel organization without adopting participatory management practices, makes process improvements primary and cultural shifts secondary, and generates incongruence between espoused participatory values and actual limited employee involvement in the process of change. The change management paradigm often fails to achieve the desired outcomes, instead producing employee cynicism, resistance and disengagement with the change process.

II. *The engagement paradigm*. The engagement paradigm was born out of the work of The Axelrod Group, Inc. as they set out to develop a change process to address the shortcomings of traditional change management models. The engagement paradigm is based on four principles – widening the circle of involvement, connecting people to each other and ideas, creating communities of action, and embracing democracy. Widening the circle of involvement involves expanding participation in the change process beyond a few dozen hand-selected employees to hundreds, even thousands of employees. This allows new and different voices to emerge and contribute to the change process and creates a critical mass for change so the few are no longer left in the position of deciding for the many. Connecting people to each other and ideas involves lowering barriers to the flow of information and new ideas as people forge links with other. When people connect with each other, they become human beings with their own real-life issues and concerns. Connection allows people to get to know others beyond the façade of role and title. Creating communities of action involves moving beyond people who have connections with others to developing a group of connected people with the will and willingness to work together to accomplish a goal with meaning. Embracing democracy involves people coming together, discussing and resolving issues, and acting. The democratic process involves dealing with issues of self-interest versus the common good and minority versus majority opinion in a way that ensures support and follow-through for the chosen course of action. Democratic principles are universal principles that speak to the human spirit, desire to be free, desire to have a say and the desire to shape one's own destiny.

The engagement model is implemented through what Axelrod calls the *Conference Model*, which consists of an integrated series of large and small group sessions. Large conferences are held every four to six weeks involving large numbers of employees from all levels to identify change opportunities and engage in planning the implementation process. "Walkthrus" are held as mini conferences for employees not able to attend the conferences to engage them in the change process. In both conferences and Walkthrus, employees are given an active opportunity to express their ideas and concerns that are incorporated into planning and implementation processes.

The engagement paradigm does not mean excluding leaders, rather, leaders play crucial roles throughout the process. *Leaders identify what needs to be changed and why and determine boundary conditions for the change effort*. Leaders set the engagement process in motion, determine whose voice needs to be heard, and establish the conditions for employees to have a voice in the change process. Most importantly, the leader's role is not to provide the answers, but to ensure that the answers are discovered.

According to Axelrod, *the engagement model offers several benefits*. People grasp the big picture, fully understanding the dangers and the opportunities facing their organizations through participation in the change process. There is urgency and energy as people become aligned around a common purpose, creating new directions and accountability. Collaboration across organizational boundaries increases because people are connected to the issues and to each other. Creativity is sparked when people from all levels and functions along with customers, suppliers, and other stakeholders contribute their best ideas. Capacity for future changes increases as people develop the skills and processes to meet not just the current but future challenges as well.

Axelrod recognizes that while his engagement paradigm is intuitively simple, in practice, *it is quite difficult to do*. He cautions that there is a downside to engagement – when it goes wrong. Cynicism and doubt become endemic. When leaders renege on the promise of engagement, the resulting damage can take years to repair. Before attempting to follow the engagement paradigm, leaders must be prepared to walk the talk, recognizing that the truth of what one says lies in what one does. Leaders who create false or manipulative engagement strategies or cancel the engagement process midstream may be worse off than those that never start.

2.2. Lewin

Lewin (1947), provided a *linear model* for a change process. In his model, Lewin observed that any living system is always in a state of change, but that the system will tend toward some kind of 'quasi-stationary equilibrium' (Lewin 1947). A balance of forces pushing in different directions achieves the equilibrium.

The level of behavior of the system is the result of forces such as those *striving to maintain the status quo and those pushing for change*. When both sets of forces are similar, current levels of behavior are maintained. In order to change the equilibrium, one can either increase those forces pushing for change or decrease those forces maintaining the current state, or apply some combination of both. Lewin suggested that weakening those forces that are maintaining the status quo produces less tension and resistance than increasing forces for change and that the former consequently is a more effective change strategy. Lewin conceived change as a modification of those forces keeping a system’s behavior stable. Lewin viewed the change process as consisting of three phases or stages:

I. *Unfreezing*. Unfreezing is accomplished by introducing information that shows discrepancies between behaviors desired by group members and those behaviors they currently exhibit.
II. *Moving*. It involves developing new behaviors and attitudes through changes in group structures and processes.
III. *Refreezing*. It is accomplished through the use of supporting mechanisms that reinforce the new state, such as systems, structures, and policies.

Levin's model provides a framework for understanding the phases of the change process.

2.3. Beckhard and Harris

Beckhard and Harris (1987), focused their model on the organizational level of analysis. According to these authors, any major organizational change involves three distinct conditions:

I. *The present state*. Where is the stage of the organization at the current stage?

II. *The transition state*. These are the conditions and activities that the organization must go through in order to move from the present state to the future state. It is the period during which the actual changes take place.

III. The future state. Where does the organization want to be?

Based on the above assumptions, Beckhard and Harris developed a model for managing the change process. The model involves three basic activities: First, to set goals and define the future state, or the organizational conditions desired after the change. Second, to diagnose the present state in relation to those goals. Third, to define the transition state. This implies developing strategies and action plans as a way to reach the future state.

The models of Lewin (1947) and Beckhard and Harris (1987), explained change at the group and organizational level of analysis. The added value of these models is that they provide leaders with a framework for developing and implementing change; leaders have to establish a need for change (unfreezing), they need to manage the transition (moving), and they need to institutionalize the change in order to make it stable (refreezing). According to Schein (1988), no change will occur unless the system is unfrozen, and no change will last unless the system is refrozen. Once these models are analyzed in depth, we can see that they do not take into account the differences in reacting to change at the individual level. In this sense, individuals who have problems with change are therefore likely to be deemed as problematic. Another weakness is that those models are too general in nature, and therefore do not offer some guidelines for managers to implement the change.

Models describing change at the group and organizational level are likely to be more relevant to this dissertation. However, models that explain change at the individual level highlight important aspects of how to deal with resistance to change. The two groups of models seem to agree that a change process includes three phases. Therefore, this dissertation will be based on the following phases: initiating change, managing the transition, and sustaining momentum. The sequence is an essential aspect of the change process.

As has already been mentioned, a weakness of the explained models is that they see change as a linear process. They do not figure out what the next stage in the change process is. Another aspect is that they focus on change as an outcome, rather than seeing it as a continuous process. The following section reviews some aspects of the circular models of change.

3. Three Forces for Change

According to Kilman (1990), in terms of the research in the literature on organizational change there is a disagreement on whether change should be implemented *top-down or bottom-up. Top-down* change is seen as the integrated perspective that only top management can provide and that promises rapid change. This means that it has the advantage of a clear direction towards an end state. However, top-down change could lead to resistance and lack of commitment from middle managers and employees who might feel that top management is not really concerned and does not really understand the problem and the need for change.

On the other hand, the *bottom-up* approach to change seems to address many of the shortcomings of top-down change through the involvement of employees in the change process. However, there are some weaknesses to this approach. First, it might lack both the direction and the links to corporate strategy. Second, it can lead to costly duplication of efforts, often leads to little transference of learning and can be slow in getting results. (Kajiter (1984); Beer (1990).

Mohrman (1989) and Beer (1990) suggested that a combination of top- down and bottom-up change holds the promise of obtaining their respective benefits while minimizing their disadvantages. Pascal (1990) states that: “When there is consensus above and pressure below, things happen”.

In my perspective a fundamental change requires not only top-down direction and bottom-up performance improvement, but also a third force for change, *horizontal process redesign*. According to Dichter (1993), this approach has not yet appeared in the academic literature. As has been mentioned so far, the literature on organizational change has focused either on top-down change, bottom-up change, or on a combination of the two. It did not include *Horizontal process redesign*. On the other hand, according to Davenport; Hammer and Champy (1993), have focused on horizontal process redesign, without taking into account the importance of *top-down direction and bottom-up performance improvement*. Finally, literature on strategic management has traditionally focused on the top-down element (Ansoff 1984), neglecting both bottom-up performance improvement and horizontal process redesign.

In this perspective, the present dissertation argues that fundamental change in Central Bank Organizations could be effectively initiated, managed and sustained by considering the three forces of change: top-down direction setting, horizontal process redesign and bottom-up performance and improvement. The combination of three phases of the change process identified with the three forces for change discussed above will be the basis for the strategic change matrix. This chapter reviews the strengths and weaknesses of existing models of top-down direction setting, horizontal process redesign and bottom-up performance improvement. Furthermore, integrating these models with the three models of the change process into an integrated, structured, and holistic framework such as the strategic change matrix (See Figure 4·):

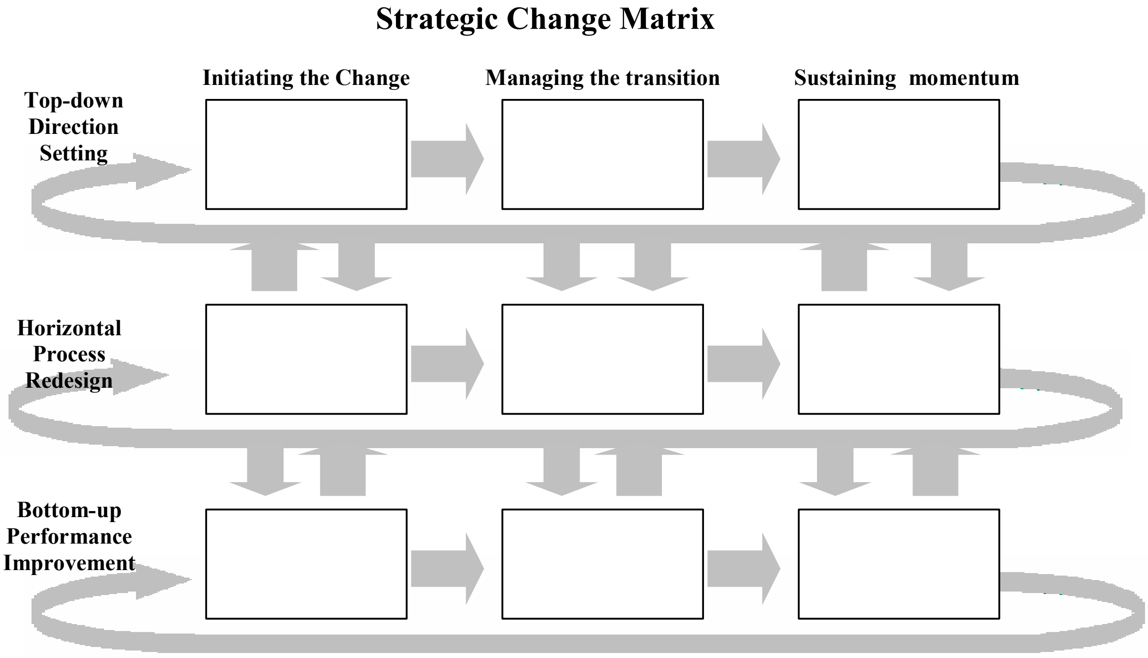

Figure 4 : Fundamental Strategic Change Matrix in complex organizations. Source:Orgland (1994).

A new model such as the one illustrated in Figure 4 above, was developed by Orgland (1994) based on the assumption that fundamental change in complex organizations can only be effectively initiated, managed, and sustained by considering all the three forces of change on which this dissertation is based. An organization will be viewed as consisting of three levels: the top, the middle and the bottom. The top level includes the Chief Executive Officer (CEO) and the top managers in charge of individual Strategic Business Units (SBU's). The bottom level includes first-level supervisors and no supervisory personnel. The middle includes the managers in between of the first-line supervisors and the managers in charge of the SBU's.

The fundamental strategic change matrix premise is that all three forces for change apply to *each of the three levels* of the organization. For instance, *top-down direction setting* is viewed to be an important activity not only by the CEO and the top management team, but also by middle managers and first-line supervisor (see Figure 5):

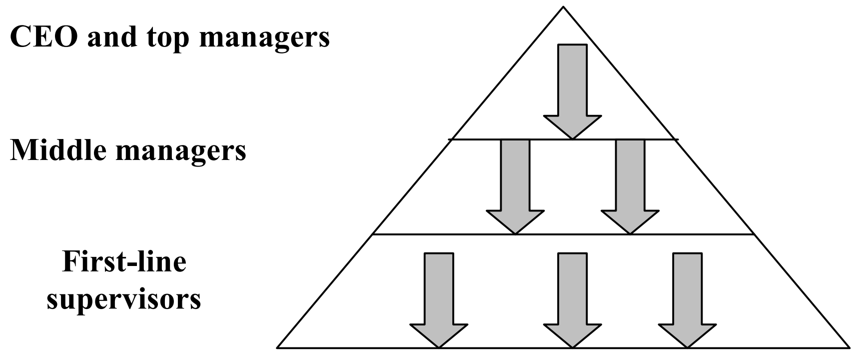

Figure 5: top-down direction setting occurs al all levels of the organizations. Source: Orgland (1994).

Horizontal process redesign can occur at three levels: across organizations, across functions in the same organization, and within functions (see figure 6). However, both the importance and potential for improvement is expected to be higher for broadly defined strategic processes that span from suppliers to customers, than for across- and within-functions processes (see Figure 6):

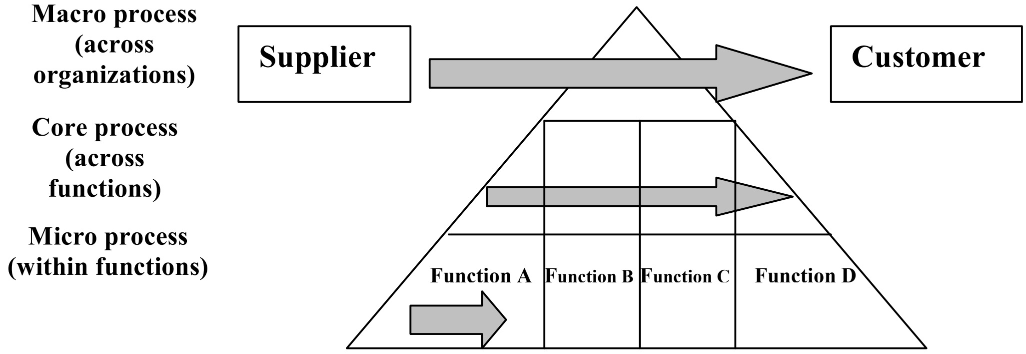

Figure 6: The Horizontal process redesign occurs at different levels of the organization. Source:Orgland (1994).

Bottom-up performance improvement is also necessary at all three levels of the organization, from non-supervisory personnel to first-line supervisors to middle managers, and middles managers to the CEO and top managers (see figure 7):

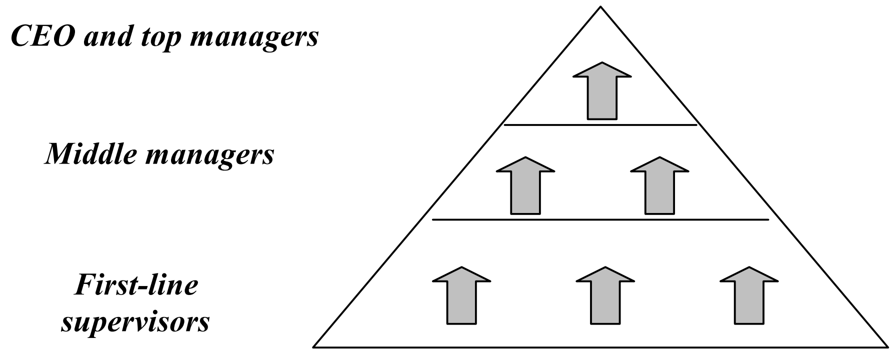

Figure 7: Bottom-up performance improvement occurs at all levels of the organization. Source: Orgland (1994).

4. Top-Down Direction Setting

According to the transformational leadership concept, this dissertation sees top- down direction setting as a key activity at all three levels of the organization: the top, the middle and the bottom. As such, the term is not focused on only one individual. The challenge is rather to *broaden the range of individuals who can perform critical leadership functions during periods of fundamental organizational change*. According to Jaques (1989) and Tomasko (1993), the primary difference between direction setting at the top, middle and bottom of the organization is the time horizon. While the direction-setting of the CEO and the top management team should focus on a 10-year time horizon, middle managers might set direction within a two to five year time frame while first-line supervisors normally have time horizons of approximately one year.

According to Nadler and Tushman (1989) the subject of *leadership during periods of change* has only recently begun to be examined as a specific question, although the subject of leadership in general has received a lot of attention over the years. One of the first authors to focus on this aspect of leadership was Burns. Bums (1978) characterized the transformational leader as somebody who commits people to action, who converts followers into leaders, and who may convert leaders into moral agents. This leader contrasts to the 'transactional' leader who merely exchanges such things as jobs, money and security for compliance.

Bennis and Nanus (1985), based on the Bums's *transformational leader* concept, argued that today's leaders must have the capacity to move organizations from current to future states, create visions of potential opportunities for organizations, commitment to change within employees, and to promote new cultures and strategies in organizations that mobilize and focus energy and resources. In the same context, Nadler and Tushman (1989), conceptualized *magic leadership* as having three major components: *envisioning* (creating a vision), *energizing* (motivating members of the organization to act) *and enabling* (providing emotional assistance in getting the tasks accomplished). For Kotter (1990), the primary function of leadership is to *produce change*. Leadership produces change by setting a direction, aligning people, and motivating and inspiring. There are three activities that characterize top-down direction:

I. *Initialing change*. It is related to diagnosing the current situation and sharing the information with the organization in order to establish a felt need for change, and to create a vision capable of guiding the organization into the future.

II. *Managing the transition*. It has to do with communicating the vision through both words, actions and symbols, mobilizing commitment to the vision by a critical mass in the organization, making a plan for the transition which includes learning while doing and, finally, to handle resistance to change.

III. *Sustaining momentum*. It has to do with institutionalizing the change process and evaluating the change effort. This normally leads back to initiating another change.

4.1. Top-Down Direction Setting Models

This section provides a review of the models more relevant to this dissertation with an evaluation thereof being made at the end. The following are the models that were taken into consideration, after a deep research of several models:

4.1.1. Beckhard and Harris

Beckhard and Harris (1987) are the pioneers as well as the leaders on the management of large-scale change in complex organizations. Their original framework of 1977 was found to be widely referenced, adapted and further enhanced by other authors. Beckhard had his roots in the organization development movement. But he was one of the first to shift the attention to large-scale change in complex organizations. This was done at a time when most other researchers in the field focused on personal and group development.

It is important to comment that some aspects of the framework by Beckhard and Harris (1987), were further decided by Beckhard and Pritchard (1992). The following review attempts to provide a synthesis of the two models. The stages identified are as follows:

I. *Defining the need for change*. This implies the definition of the degree of choice about whether to change; whether top management has a choice; whether to change at all, or just a choice regarding how to change. The need for change should be focused on a crucial aspect such as mission, identity, culture, and way of work or key relationships with stakeholders. Although one focus of change may lead, the others will inevitably follow.

II. *Defining the desired future state or vision*. The vision should be developed keeping in mind the organization's core mission. Furthermore, a temporal future state between the vision and the present state should be specified.

III. *Assessing the present state, taking into account the desired future state*. This assessment permits the determination of what needs to change and what does not. Change problems are grouped in constellations or clusters of problems and relevant subsystems are then determined. Each subsystem is then assessed for its capability and readiness for change.

IV. *Transition management (getting from here to there)*. This stage includes determining both the major tasks and activities for the transition period and the structures and management mechanisms necessary to accomplish those tasks. Strategies and action plans are also developed for getting the commitment of whatever critical mass is necessary to achieve the goal. Moreover, a strategy for communicating the change needs to be designed along with dedicated resources like experts and consultants assigned to assist in managing the change. Finally, transition management also demands processes of feedback and replanning, or *learning while doing*

V. *Aligning the organization*. The assumption in this stage is that roles and relationships, human resource policies and practices, information systems, financial management and controls need to be aligned with each other and with the change effort.

4.1.2. Nadler and Tushman

Nadler and Tushman (1993), have written several important papers on the management of organizational change. In the literature review, they were found to be widely quoted authors on the subject. Their work focuses on the management of reorientations, defined by the authors as strategic and anticipatory organizational changes (in contrast to incremental and reactive changes). They identified the following ten activities or principles, which they group into four clusters.

Cluster one: *Initialing change*

I. *The "Diagnosis" Principle*. In order to determine what have to be changed, managers need to understand the environmental challenges and forces, the critical success factors associated with achieving an effective response, and the strengths and weaknesses of the organization.

II. The "Vision" Principle. An effective reorientation includes a vision or, in other words, a fully developed description of the desired future. The vision normally addresses values as well as performance. Furthermore, visions are directional, symbolic, educational, and energizing.

III. The "Energy" Principle. Since organizations contain tremendous forces for stability, a sense of urgency, or need for change, must be created in order to get change initiated and executed. Since urgency and energy are emotional issues, major change requires that organizational members experience real pain. This pain can be created by involving employees in the process of data collection, discovery and comparison of their organization against accepted benchmarks.

Cluster two: *Content of Change*

IV. *The "Centrality" Principle*. For a change to engage the entire organization, it must be clearly and obviously linked to the core strategic issues of the firm. The connection should be so clear and have so much validity that the relationship of the change to the company's health and survival is obvious.

V. *The "Three-theme" Principle*. While a strategic change may involve a large number of specific activities, it is necessary to group them under a limited number of themes, normally no more than three. These themes help communicate and conceptualize the changes and make them more understandable for employees. Successful reorientations are characterized by a consistence of themes over time.

Cluster three: *Leading change*

VI. *The "Magic Leader" Principle*. An important component of a successful reorientation is an individual leader who serves as the focal point of change. The magic leader creates an engaging and inspirational vision, creates a sense of urgency and is the guardian of the themes of the change. In addition, the leader is both directive and uncompromising in furthering his or her objectives for change while at the same time welcoming participation.

VII. *The "beyond-the-magic-leader" Principle*. While magic leadership is necessary, it cannot by itself sustain a large-scale change. The executive team needs to share and own the vision and become champions of the change. In addition, senior management needs to be involved and leadership expanded throughout the organization.

Cluster four: *Achieving change*

VIII. *The "Planning and Opportunism" Principle*. Successful reorientations involve a mix of intense planning and unplanned opportunistic action. Since planned organizational change involves a good deal of learning, this learning needs to shape the necessary, frequent revision of the plans within certain boundaries. The authors called this bounded opportunism.

IX. *The "Many Bullets" Principle*. The infrastructure must be adjusted to be consistent with and supportive of the change. Aspects of the organization that might need to be changed are performance measures and standards, rewards and incentives, planning processes, budgeting and resource allocation methods, and information systems.

X. *The "Investment and Returns" Principle*. This principle is double. First, large-scale organizational change requires significant investment of time, effort, and money. The scarcest resource appears to be senior management's time. Second, the more complex the organization, the longer the time required for change. The reason for this is that each level of the organization needs to go through its own process of comprehending the change and coming to terms with it, requiring a selling and reselling of the change throughout many levels of the organization.

4.1.3. Quinn and Kimberly

Quinn and Kimberly (1984), developed a model based on four phases and eight guidelines for managing transitions. Their phases and guidelines can be highlighted as follows:

Phase one: *Strategic Readjustment*

I. *Analysis*. It is key to determining whether a transition should be initiated. The analysis would be difficult because the organization is likely to have strategies that have worked in the past. However, some key factors in one of eight areas of performance such as flexibility, growth, productivity, planning stability, communication, cohesion, and human resource development will determine that a major readjustment is necessary.

II. *Clarification*. This phase involves the finding of unity in the different perspectives of both internal and external stakeholders on what the organization is and should be. The distinctive competencies of the organization must be determined and a purpose that people can support specified.

Phase two: *Political Adaptation*

III. *Support*. The issue of power becomes central. An analysis of the needs, resources, and position of key stakeholders must be undertaken, and a power base developed and maintained.

IV. *Adaptability*. At this point the change begins to take on a life of its own. Furthermore, authority, control, and design begin to give way to learning and adaptation. Standard operating procedures must be relaxed, redundancy encouraged over efficiency, task forces and matrix designs become appropriate. The need is to engage in organizational learning, which includes the encouragement and consideration of criticism.

Phase three: Cultural Development

V. *Sensitivity*. Managers need to recognize that the creation of the new means the destruction of the old. Sensitivity to individuals and their sense of loss is therefore important during this step in order to avoid resistance to change.

VI. *lvement*. Meaning, emotion, and commitment are part and parcel of organizational life. This step highlights the importance of participation in dealing with these issues.

Phase four: *Structural Routinization*

VII. Control. The participation in the previous step leads to a need for control. A failure to plan, monitor and control activities can leave employees to flounder, waste resources and result in frustration. This step emphasizes that managers need to avoid the abdication of responsibility.

VIII. *Structure*. In order to institutionalize the change, the structure must almost always be modified. The structure must be matched not only to the strategy but also to the environment and the internal culture.

4.1.4. Beer, Eisenstat and Spector

The model of Beer, Eisenstat and Spector (1990a; 1990b), is based on longitudinal case studies of revitalization efforts made by six large U.S. companies. Within these companies, 26 plants and divisions were studied. Revitalization was defined by the authors as *enhancing the abilities of, and contributions made by, managers, workers and the organization as a whole to cope with an increasingly competitive environment*. The authors emphasize that change is best achieved through an approach termed task alignment, which is referred to a change effort focused on the organization's central competitive challenge in contrast to the more unfocused and staff-driven programmatic change efforts. The model has six steps, as follows:

I. *Mobilize energy, for change through joint diagnosis of business problems*. The starting point for any effective change is a clearly defined business problem. Organizational members need to develop a common understanding of the problem in order to unleash the necessary energy for change. This can be accomplished by sharing data and discussing its meaning, by demanding improved performance and behavior, and by exposing employees to model organizations.

II. *Develop a shared vision of how to organize and manage for competitiveness*. The vision provides employees with an understanding of how the organization will function in the future and how roles, responsibilities and relationships will change. The vision also expresses values that allow employees to identify will the organization. Finally, the vision allows revitalization initiatives to be integrated over time.

III. *Foster consensus for the new vision, competence to enact it, and cohesion to move it along*. Taking into consideration that not everyone can take part in creating the vision, change leaders need to take a number of other steps to further strengthen the employees' support and skills. This may involve team-building sessions for the top management group, external and internal consulting, and training support, replacement of key personnel unable to adapt to the new circumstances, and an effort to obtain the commitment of the local union.

IV. *Spread revitalization to all departments without pushing it from the top*. Since revitalization does not occur in all parts of a plant or business unit at the same time, the changes must be disseminated to the other departments. This can best be accomplished by insisting upon that all departments should engage in a process that will move them towards the vision. However, room should he left for each department to find its own way to implement the vision rather than forcing a one-for-all solution.

V. *Institutionalize revitalization through formal policies, systems and structures*. After new patterns of behavior have emerged, they need to he supported by 'harder' interventions such as modifications in formal policies, structure and systems in order to institutionalize the changes. This will prevent the revitalization process from stopping if the change leader moves on to other responsibilities.

VI. *Monitor and adjust, strategies in response to problems in the revitalization process*. Changes in one part of the organization will lead to stress and strains in other parts. The revitalization effort must therefore be monitored, and midcourse corrections made. The ultimate purpose of the revitalization is to create a learning organization that is capable of analyzing performance problems and making changes in organizing and managing that eradicate the root causes of the problems.

4.1.5. Tichy

Tichy (1993), incorporates learning from having consulted with the General Electric Company. Tichy developed his model based on a framework of technical, political and cultural dynamics. Thus, each step in the process can he analyzed according to these three aspects. Tichy's model of *corporate revolution* is based on three acts and twelve steps, as follows:

Act one: *Awakening or launching the revolution*

I. *Create a feeling of urgency*. This has to do with how organizations need to pay close attention to changes in their environment and act before it is too late. The first test of a revolutionary leader is the speed with which he wakes up the organization. The leader must carefully articulate why change is necessary, and make certain that top leadership team is in total agreement.

II. *Deal with resistance*. Resistance begins when real actions (such as divesting businesses) show that the leader is serious about the talk. Resistance comes in three forms. Technical resistance includes the rational reasons for resisting change such as habit and inertia, fear of the unknown and prior investment. Political resistance is due to perceived threats to the existing power structure such as changed resource allocation, indictment of leaders and threats to powerful coalitions. Cultural resistance is due to mindsets and blinders built up over the years, resulting in anchors that keep people in the past.

III. *Fighting resistance*. Much resistance resides in the chain of command because people's vested interest is at stake. Revolutionaries therefore do not rely on the chain of command to bring about quantum change, but use three other mechanisms: the internal auditing function is used to change measures and offer consulting to help transform the business. The leader, to communicate this message, takes the internal media. Finally, the schools or internal training and development sessions provide a forum for the leader to bypass the hierarchy.

Act two: *Envisioning or mobilizing commitment to a vision*

IV. *Preparation for the vision*. Before starting the creative envisioning process, time needs to be taken to assess today's reality and as such, understand the departure point. This is best accomplished using the technical, political and cultural framework.

V. *The nature of the envisioning process*. The envisioning process is a creative, often chaotic, multiple-iteration process. Leaders need to brainstorm and organize their ideas around central concepts, and then get feedback and think out loud with many different stakeholders. The vision must include quantum ideas in the technical, political and cultural framework.

VI. *Creating your vision*. Leaders must plan to give a committed core group of leaders time and opportunity to create their own visions of the future organization, and then spend adequate time listening, sharing and working to create a common vision.

Act three: *Re-architecturing or building the social architecture*

VII. *Assess your organization on boundarylessnes*. This step includes analyzing how well vertical boundaries, walls between groups within the business, and barriers between the businesses and external stakeholders have been removed.

VIII. *Social architecture at the top*. The social architecture refers to the fundamental redesign of how people work together to get things done, which relates to whom, for what, and how decisions are made. At this point in time, it is critical to start by radically changing the way the top of the organization functions. The key building blocks that need be considered are people (the right players in the right roles), time (what subjects are included in the corporate agenda, and how often meetings, reviews etc. should take place) and space (e.g. physical locations and hierarchical layers).

IX. *Company-wide involvement in the revolution*. After the top has been redesigned, it is time to get every employee involved in the revolution. At General Electric this process was given the name of Workout. The objective of Workout was first to eliminate unnecessary work and, second, to identify and examine the crucial processes that make up the business in order lo find a faster, simpler and better way of doing things.

X. *Launching a Workout effort*. Workout can be launched in different ways. This step highlights that each leader needs to think through how he/she wants to go about the launch.

XI. *Human resource systems to support your vision*. At this point in time it is important to change the human resource support functions like selection criteria, appraisal requirements, development of the organization, and reward structure.

XII. *Continuous revolution*. In order to institutionalize the revolution's vision and ensure continuous change, it is necessary to make as many people as possible agents of change. This step thus involves training leaders to lead their own Workout sessions.

4.1.6. A Comparison and Evaluation of Models

According to the models described above, there are several similarities and differences between them as well as strengths and weaknesses to each one of them.

An essential similarity between the models is that all of them follow the basic sequence: initiating change, managing the transition and, finally, sustaining momentum. This means that a significant agreement was found among the authors on the phase models of change in the sense that change process goes through these three basic phases. However, there are considerable differences in the sequence of steps among these three basic phases.

Most models agree that the change process must start with diagnosing the current situation and establishing the need for change. According to Quinn and Kimberly (1993), their model emphasize more the diagnosis aspect, while Tichy (1993) focuses more on establishing a felt need for change. For Beer (1990a), the diagnosis and the establishment of a need for change are one and the same step. This reflects the fact that his model is based on widespread participation in the diagnosis that leads directly to a shared dissatisfaction with the status quo. The premise of the other models is that diagnosis is mainly made by top management, and that the insights must he shared with the organization in a second step in order to create a felt need for change.

All models agree upon that either the diagnosis or the need for creating a vision must follow change. A more detailed look at the model of Tichy reveals that some aspects of the vision were already there during earlier steps. The difference is that Tichy sees the creation of a vision as a never-ending, iterative process that accompanies the whole change effort. The other authors make a clearer distinction between creating the vision, on the one hand, and then communicating it and mobilizing commitment to it on the other hand. For Tichy, creating the vision, communicating and mobilizing commitment to it are all aspects of the same process. All authors agree that the vision must be communicated and that the commitment of key players to the vision must be mobilized.

With regard to the other steps in the *managing* the transition phase, there is less agreement on any particular sequence of steps. All authors, with the exception of Tichy, observe that transition management includes both detailed planning and learning while doing. Only Quinn and Kimberly (1984) and Tichy (1993), focus on the aspect of dealing with resistance to change. An in-depth look at the models reveals that Beckhard and Harris (1987) deal with resistance to change as an aspect of mobilizing commitment to the vision. Beer (1990a), on the other hand, emphasizes a participative process to introducing change which reduces the problem of resistance.

All authors agree that in order to *sustain momentum* and make the change semi-permanent, changes must be institutionalized by adapting systems and structures to the changes in behavior that have been accomplished. Although Nadler and Tushman (1993) observe that change is a process that requires a long time span, only the models by Beer (1990a) and Tichy (1993) remark the fact that change is a never-ending process and that the process ends by starting all over again.

The *strength* of the models explained above, is that there is considerable agreement on both the importance and execution of top-down direction setting. All models coincide in that fundamental change involves establishing a need for change, creating and communicating a vision, managing the transition and institutionalizing the changes. All models are also based on either specific research or on the combined teaching and consulting experiences of the authors.

Another key strength of the models is that they are relevant, understandable and actionable for managers. The models thus fulfill a key condition set forth by Drucker: *for a theory or concept to be useful, it must ultimately be translated into the language and context of managers and managerial action*. Hamel and Prahalad, two leading thinkers in the field of strategic management, agree: *the ultimate test of business school research is its managerial significance*.

The main weakness of these models is that they, with few exceptions, fail to consider the two other powerful forces of change: bottom-up problem-solving and horizontal process redesign. Some traces of *bottom-up problem-solving* can be found in the models by Beer and Tichy. Beer (1990a), emphasizez participation at various stages in the change process, like in the creation of the vision, and stresses the importance of getting the local union committed to the vision. For Tichy, widespread involvement of employees should only take place towards the end of the change process in the context of Workout when the top of the organization has already been changed.

The only model that includes certain aspects of horizontal process redesign is Tichy's framework. Tichy refers to the Workout effort implemented at General Electric. While the first phase of Workout focused simply on eliminating unnecessary work, subsequent phases focused more on analyzing and improving business processes. However, in Tichy's framework, process redesign appears rather as a part of top- down direction setting than as a powerful force for change on its own.

Another weakness of the models, with the exception of that of Nadler and Tushman (1993), is that they fail to emphasize the importance of leadership at all levels of the organization. Beckhard and Harris (1987) mention this point when observing that special structures and management mechanism are necessary during the transition stage. Tichy (1993) also points in that direction in the last step of his model when he highlights the need to make as many people as possible agents of change. However, only Nadler and Tushman recognize the limitations of the magic leader, and the importance of expanding the leadership of change to more levels of management during the early stages of the change process.

A third weakness of the models is that they, with the exception of Tichy's (1993), have lost connection with three basic phases of the change process (initiating change, managing the transition and sustaining momentum). Although, as discussed above, all models implicitly follow the three phases, they have lost the explicit connection therewith. This dissertation argues that a model of change easier to understand and to use for managers can be made by reestablishing a clear link to the three basic phases of the change process.

The following section develops a framework for top-down direction setting, which builds on the strengths of the above models while attempting to eliminate their weakness. This way, this framework groups the *top-down direction setting* activities of the change effort within the three basic phases of the change effort: initiating change, managing the transition and sustaining momentum (see figure 8). This grouping makes the framework much more clear and understandable.

4.2. Top-Down Direction Setting Model (within the Strategic Change Matrix)

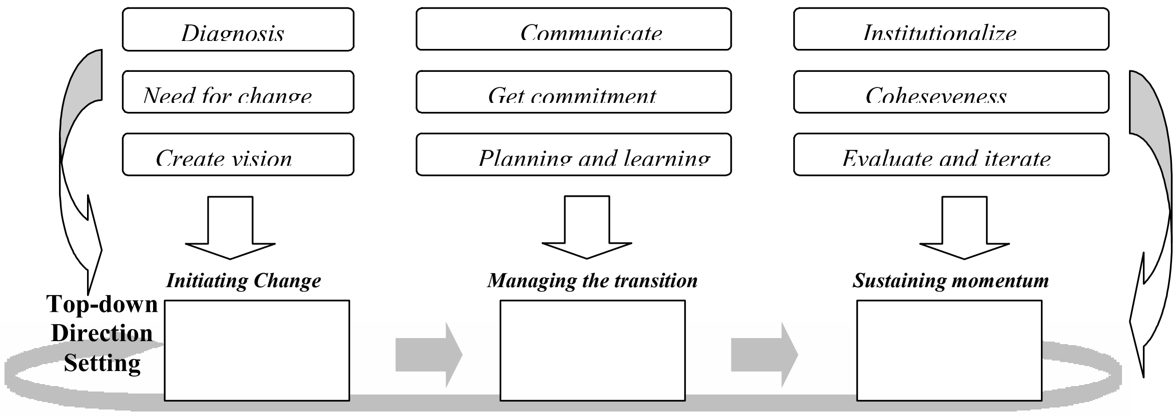

Figure 8: Top-Down Direction Setting Model (within the Strategic Change Matrix).. Source: Orgland (1994).

An essential premise of the framework is that top-down direction setting is a key activity at all levels of the organization, and as such it is not limited to any individual like the CEO or a small group of top leaders. Third, top-down direction setting is regarded as only one out of three forces for change in the *strategic change matrix*, although it is probably the most important of them all. The other two important forces in the strategic change matrix are horizontal process redesign and bottom-up problem solving.

4.3. Phase One: Initiating Change

4.3.1. Introduction

According to Hodge, Anthony and Gales (1996), not all change is initiated at the same pace. Change can be either slow and deliberate or quick and radical. Up to this point our focus has been on formally planned change. But change may also emerge through an unplanned and unforeseen process. *Planned incremental change is change that is evolutionary rather than revolutionary*. For example, suppose an organization decides to institute a new human resources system. A human resources system involves many facets of organizational life including recruiting, training, performance evaluation, compensation, promotions, and benefits. To change all these components at the same time may severely disrupt the organization. A planned incremental-change strategy would approach changing the human resource system one item at a time. The process might begin with a change in the performance-appraisal system. Even that change may be phased in one department or one division at a time.

The value of this approach is that *disruptions to the organization would be limited and the organization would be able to evaluate the new performance-appraisal system in a limited setting*. Thus, in case problems arise, they might be easier and less costly to correct on a small-scale introduction rather than if the change had been made in the entire organization. Hewlett-Packard, a computer technology company, is an example of an organization that has used incremental changes in new product innovations to maintain the company’s competitiveness in this rapidly changing industry. Over the past few years the company's domination of the printer market has been due in no small part to its attitude toward change and innovation. The company has avoided a crisis mentality and has continually revamped and modified its products. In 1994, new products accounted for 70 percent of revenues, but many of these new products are extensions or variations on *previously existing products*. According to Wilstrom (1995), the company is ready to cannibalize its products to yield incremental improvements.

According to Tushman (1986), radical change, sometimes referred to as frame-breaking change, is brought about by major changes in the business strategy. According to Hodge, Anthony and Gales (1996), changing strategy typically requires a change in structure, people, and organizational processes. According to Romanelli and Tushman (1994), researchers suggest that organizations often go through long periods of stability and then face a brief period of fundamental change in the industry that requires the organization to undergo radical, frame-breaking change. According to Hodge, Anthony and Gales (1996), for example, K-mart went through that period from the 1960s through the mid-1980s without undergoing much significant change. However, the challenges presented by Wal-Mart and various "category-killer" stores like Toys ’R’Us and Home Depot have forced K-mart to alter its basic business strategy. At present, the company is in the process of radical, frame-breaking changes that are likely to affect both structure, people, and processes.

Although major frame-breaking changes may seem to be rare events, they are a little deceptive. What managers and consultants find is that even incremental changes often trigger a chain reaction in an organization. It is not unusual to find that subtle changes in one area necessitate changes in another area, and so on. According to Stratford (1993), Jack Welch, Chairman of the Board at General Electric, notes that change strategies often underestimate the impact and scope of the effects on the organization. Thus, what sometimes begins as minor fine-tuning or adjustment to the organization ends up being more akin to radical change. According to Mintzberg (1993), unplanned change is change that just happens or emerges. Strategy and practice in the organization emerge in the course of business as a stream of actions and decisions. According to Hodge, Anthony and Gales (1996), as we have noted throughout this text, organizations are dynamic and ever-changing entities. The environments in which they are embedded are also constantly changing. Thus, it is reasonable to assume that change takes place in organizations whether or not it is guided by management. Organizations do not just wander aimlessly, but they change and respond to events in their environment, often with only minimal conscious planning on the part of management.

Perhaps the greatest challenge facing modern organizations is the need to identify appropriate areas to change, to nurture those changes, and to maintain change in various aspects of the organization. Most types of planned organizational change involve some modification of organizational goals and strategy. Some planned changes may emerge from lower levels of the organization in response to local problems or conditions. Although these changes may not be motivated by changing corporate-level goals or strategy, they are most likely to be driven by local department or work unit goals. Typically, changing the goals and strategy are but the starting point for changing other aspects of the organization. Goals for new products would likely require research and development, new production, and perhaps new personnel and new structures. Improving financial performance could involve such changes as increased efficiency (i.e., less waste, greater productivity), improved marketing, less overhead, or other sorts of changes. A goal of improving quality could involve changes in virtually all aspects of the organization, from the skills and training of personnel to the culture of the organization. The point is that most large-scale planned organizational changes begin with new or modified goals and strategy, but changing the goals and strategy are just preliminary steps to further organizational change.

One of the more pervasive forms of change that has affected organizations around the world has been downsizing. Although typically there are structural aspects to downsizing (the elimination of layers of bureaucracy, merging of departments or divisions, etc.), the most obvious aspect thereof is that the organization eliminates people. Management must decide on rules and strategy for determining who to cut from the organization as well as on the procedures for actually eliminating personnel. Eliminating the wrong people from the organization can be costly. Critical skills and knowledge may be lost, as was the case at General Motors. According to Kerwin (1994 and 1992), in some cases firms that have downsized have belatedly realized that they cut the wrong people and have faced the embarrassing task of rehiring released workers.

According to Brockner (1988), Mansour-Cole and Gales (1995), Sutton and Eisenhardt (1986), Feldman and Leana (1989), and Daft (¨1992), how the organization releases the eliminated workers can have profound impact not only on those who lose jobs, but also on those employees who remain in the job. According to Hodge, Anthony and Gales (1996), the keys to successful downsizing include keeping employees informed of possible job elimination, providing a fair and just system for eliminating jobs, helping to place departing workers in new jobs, allowing departing workers to retain self-esteem and dignity, and using cultural ceremonies and rites to manage feelings and attitudes of remaining workers. Creating a supportive work environment can be an important step in smoothing the difficult process of laying off workers. Several other people changes are also available to the organization. The organization can recruit new employees with particular skills or background. For example, with the increasing emphasis on international business, many organizations are seeking potential employees fluent in several languages and familiar with diverse national cultures. The emphasis on computerization and automation has forced many organizations to seek employees with bigger levels of education and with specific computer training. However, recruiting is not the only way to obtain these or other specialized skills. Many firms use extensive and ongoing on-the-job training and development to ensure that employee skills and knowledge are current and relevant.

4.3.2. Diagnosis of the Situation

Initiating change starts with a thorough diagnosis of the situation. The results of this diagnosis then need to be shared with the organizational members who were not taking part in this phase to create shared, felt need for change. Then the work of creating a vision begins as a third step.

According to Pascale (1990), Nothing fails like success. Only few of the excellent companies identified by Peters and Waterman (1982) are still considered to be excellent today. Lessons learned from past experience can often result in learning traps when the environment changes. In the business world, there is no such thing as sustaining leadership; it must be reinvented again and again. These above quotation illustrate two important points about diagnosing the situation. First, leaders must understand how environmental changes influence the firm's strategies, structure and culture. Second, leaders must think about how they can influence the future environment and industry structure to their own advantage.

The first challenge is to *initiate strategic organizational change in anticipation of a future crisis* rather than as a reaction to environmental changes that have already fully materialized. According to Hamel and Prahalad (1994), a discrepancy between the pace of change in the industry environment and the pace of change in the internal environment will ultimately lead to a need for drastic, reactive changes. As has already been discussed in the introduction to this dissertation, the focus of this study is on fundamental changes, which are initiated in anticipation of a future crisis. In other words, the challenge for leaders is to initiate the changes early enough, before there is a real crisis. Various researchers have documented the importance of an early response. Schlesinger (1987), in an in-depth study of the fundamental changes made at AT&T, concluded that the measure of leadership during a period of change is how early the direction of change is detected and how effective the process of adaptation is expedited through management action.

A study of executive leadership and its relation to organizational evolution was developed by Tushman, Newman and Romanelli (1986). The authors concluded that responding in a proactive rather than in a reactive way was a major reason for success in launching fundamental change. This proactive behavior is achieved by leaders who sense the need for discontinuous change at a time when the rest of the organization is still focusing on maintaining the status quo. Ansoff (1984) developed a management technology termed “weak-signal management”[5] according to which threats and opportunities are only partially predictable. According to Ansoff, a firm should start the response while the signals are still weak, and there is not enough information to formulate a clear and unambiguous strategy. As the knowledge about the issues increases over time, the firm can respond to the weak signals in a progressive manner, which includes strategic learning and gradual commitments.

The second challenge is diagnosing the situation. It stems from the fact that organizations also *create their own environments*. 'The actions of one competitor become the environment of another. Each competitor, therefore, partly determines its own environment as the competitors react to each other' (March 1981). Companies must therefore ask themselves: 'how do we want this industry to be shaped in five or ten years? What must we do to ensure that the industry evolves in a way that is maximally advantageous for us? (Hamel and Prahalad 1994). The real challenge is to be the author of industry transformation. Companies must establish themselves as the intellectual leaders in terms of influence over the direction and shape of industry transformation.

The outcome of the diagnosis should be an understanding deeper than the one competitors have on the trends and discontinuities in the areas of technology,

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[5] *A related term is 'strategic issue management' (Ansoff 1984). Whereas 'strategic issue management' responds to fully predictable threats and opportunities. 'weak signal management' deals with threats and opportunities that are only partially predictable.*

demographics, regulation, consumer habits and lifestyle, and of how to exploit them. What is asked for is an independent point of view about tomorrow's opportunities and what kind of organization is needed to exploit those opportunities. In order to control the direction and shape of industry transformation, companies must identify what customer benefits they should seek to provide, what new technological competencies are needed to build those benefits and how they will need to reconfigure the customer interface in the future (Hamel and Prahalad 1994). When companies have the answers to these questions, they can decide what kind of organization will be needed, which business processes will have to be redesigned, which resources will need to be redirected and what people and skills will be needed to create the future. In other words, the direction of the fundamental organizational changes should result from the point of view about the industry transformation. Only a thorough diagnosis can convince top management of the need for fundamental changes and give them the courage and self-confidence needed to implement the changes (Allaire and Firsirotu, 1985).

The next step in considering what the outcome of the diagnosis should be, is to ask *how companies can go about diagnosing the situation* in order to build the best possible assumption base about the future. One of the most important tasks is to *challenge the assumptions on which the organization is built and is being run*. When big organizations get into trouble, the popular literature and even many CEO's themselves use to blame sluggishness, complacency, arrogance, and mammoth bureaucracies. According to Drucker (1994), these explanations are rarely the relevant ones. The explanation is rather that the assumptions on which the organization have been built, what Drucker (1994) calls the theory of the business', no longer fit reality. The theories of the businesses are assumptions about what to do and not to do, what the organization considers meaningful results, what markets to serve, which the organization's competitors and customers are. Technology counts and what a company's strengths and weaknesses are. Scholars from different fields have emphasized the importance of challenging these tacit assumptions. In the field of organizational change, Davis (1982) used the concept *organizational context* to describe the unquestioned assumptions through which all experience is filtered and gets meaning. Lorsch (1986) described how seeing events through a prism of beliefs leads to *strategic myopia*. The significance of changing external conditions is missed because managers are blinded by strongly held beliefs. Schein underlined the importance of critical, cultural assumptions'. Argyris

(1989), in an article on organizational learning, observed how *organizational defensive routines* and *defensive reasoning* lead people to keep their premises and inferences to themselves, thus preventing assumptions and conclusions from being tested. Senge (1990b), in a article on learning organizations, stressed that many of the best ideas in organizations never get put into practice because they conflict with established mental models.

Von Krogh and Vicari (1993), in an application of the autopoiesis theory[6] to the field of strategic learning, showed how this theory implies that firms reconstruct their own reality by applying internally generated norms and distinctions. There is input and output of signals, but not of information. The selective manner in which the firm seeks and collects data about facts in the environment, and the manner in which these data are converted into information are influenced by the company's established distinctions and norms. Finally, Hamel and Prahalad (1994) remarked that a company's 'corporate genetics', the set of biases, assumptions, and presuppositions managers carry around in their heads, can become a threat to survival when environments change rapidly and radically.

The next aspect is *how companies can learn to deal with the problem of unquestioned assumptions and beliefs*. In the field of strategic planning, Mason and Mitroff (1981) developed a technique for surfacing and testing strategic assumptions. Argyris (1989) emphasized the need to make *non-discussible topics discussible*. Senge (1990b) stressed the importance of surfacing and testing mental models. Von Krogh and Vicari (1993) suggested, based on the autopoiesis theory, that firms can stimulate the self-reproductive process by creating new distinctions using the errors provided by experiments, and by selecting new data from the environment. Hamel and Prahalad (1994) suggest that companies must encourage genetic variety. They can do this by bringing in managers from the outside, leaving a bit of leeway in administrative procedures and seeking out and rewarding unorthodoxy.

According to Drucker (1994), the "theory of the business" is a hypothesis that must he tested constantly. Drucker emphasizes the need for both preventive care and early diagnosis. *Preventive care* involves challenging roughly every three years every product, service, policy, and distribution channel with the following question: “if we were not in it already, would we be going into it now?”.

To *diagnose problems early*, managers must pay attention to warning signs. According to Drucker, a theory of the business always becomes obsolete when an organization obtains its original objectives. Attaining one’s objective is therefore a cause for new thinking rather than a cause for celebration. Rapid growth is another sure sign that the organization has outgrown its theory. Finally, unexpected success and unexpected failure, whether one's own or a competitor's, is a clear signal that an organization's theory of the business is no longer valid. In Drucker's own words, companies who engage in serious rethinking of the theory of the business do not dismiss unexpected failure as the result of a subordinate's incompetence or as an accident, but treat it as a symptom of *systems failure*. They do not take credit for unexpected success but treat it as a challenge to their assumptions.

Other *aspects*, which scholars and researchers have suggested that firms should consider in their diagnosis, include the following: Porter (1980) suggested that firms should analyze their current industry structure. According to Porter, a company must understand the rules of competition that determine attractiveness. This includes analyzing the bargaining power of suppliers and buyers, the threat of substitute products and services, and the threat of new entrants.

Porter (1980), Lorange and Nelson (1987) observed that corporate performance almost always declines following a period of success. Managers should therefore team to recognize the signs of deterioration. These signs include, amongst others, a swollen staff and an excess of managerial levels, disproportionate staff power, tolerance of incompetence, cumbersome administrative procedures and replacement of substance with form.

Strebel (1992) emphasized the importance of identifying industry breakpoints, or sudden radical shifts in the rules of the business game. Strebel observed that, in order to

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[6] *The Autopoiesis theory (auto = self, poiesis = production) has its roots in the field of neurobilogy and is*

anticipate breakpoints, companies must look for typical patterns in the interplay between the forces for change and resistance. Kotter and Heskett (1992), in a study of 205 US organizations, found that successful firms had adaptive cultures that served the interests of all the three key stakeholder groups: customers, employees and stockholders. This implies that diagnosis should include an analysis of the needs of these stakeholder groups. Finally, Jick (1993a) highlighted the importance of studying a company's history of change. If a company has a track record of opposing change, more care should be taken to design the implementation process.

The last question to be considered in the diagnosis is who should participate. In the introduction to section 4, it was already pointed out that top-down direction setting is an activity that should not be limited to a small number of individuals or management layers. This implies that participation in the diagnosis should be broad rather than narrow. The problems of separating thinking from acting, and strategy formulation from strategy implementation, have been well documented in the literature (e.g., Hambrick and Cannella 1989; Mintzberg 1990; Belasco and Stayer- 1994). Likewise, a study investigating the strategic involvement of middle managers in 20 organizations concluded that their participation in the formulation of strategy is associated with improved organizational performance (Wooldridge and Floyd 1990).

In today's competitive and turbulent environments, a strategic management mindset is needed at every level of the organization. The purpose of diagnosis is not only to produce a plan; it is to produce a plan that will be owned and understood by the people who have to execute it (Belasco and Stayer 1994). According to Hamel and Prahalad (1994), a point of view about the future must be deeply shared and well tested as opposed to personal and idiosyncratic.

4.3.3. Determining a Need for Change

In complex organizations it is unlikely that every employee will have an opportunity to be involved in the diagnosis, even if the company follows the principle of broad participation recommended in the previous section. For this reason, there will probably

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used to explain cognition in living system (Von Krogh and Vicari 1993: 395) be a need for *creating a felt need for change* in the organization. This involves making people so dissatisfied with the status quo that they are motivated to try new things and new ways of behaving. In a recent representative survey of change management, which covered 350 executives in a wide range of US industries, a *lack of buy-in that change is necessary* was quoted as the number one barrier to change (Arthur D. Little, 1994).

There is widespread agreement in the literature reviewed upon that creating a felt need for change is important. Not only did nearly all the models of top-down direction setting in section 4.1 emphasize this step, but also several other sources were found to be in agreement with the need to establish a felt need for change. Some of the terms used in the literature to describe *creating a felt need for change* include: *unfreezing* (Lewin, 1947), *energy* (Nadler and Tushman, 1993), *a sense of urgency* (Jick, 1993a), *unlearning* (Hamel and Prahalad, 1994), *dissatisfaction with the status quo* (Beckhard, 1975), *dissatisfaction with the current state* (Nadler, 1982b), *dissatisfaction with the current state of affairs* (Lawler, 1989), *dissatisfaction with the old* (Kilmann and Covin, 1990), and *need for change* (Porras and Robertson, 1987).

The next question is *how to go about creating a felt need for change*. Some authors have observed that a real crisis is necessary for organizations to change in a fundamental way (Greiner, 1972), (Levy and Merry, 1986). However, the focus of this dissertation is on fundamental change in anticipation of a future crisis and not on fundamental change as a reaction to a crisis. Hamel and Prahalad (1994) have observed that: “Any company that wants to avoid a genuine profit crisis must create a quasi-crisis years in advance”. The following presents methods described in the literature for creating such a *quasi-crisis*.

Sharing important competitive information and discussing its meaning was found to be one of the most common methods for creating a felt need for change (Beer, 1990); (Young, 1991); Spector (1993). A simple presentation of the results of the diagnosis can be a powerful way to persuade people in an organization that change is necessary. This information is likely to shatter the widespread assumptions about the current situation.

For Welch (1993), "start with reality. Get all the facts out. Give people the rationale for change, laying it out in the clearest, most dramatic terms. When everybody gets the same facts, they'll generally come to the same conclusion".

According to Young (1991), the skill lies in designing the analysis so people can understand it, and to tailor-make the presentation to the interests of a particular audience. The type of information, which is shared often, includes data concerning performance in relation to competition, like profit and loss information, comparative price and cost information, comparative wages and comparative position in the marketplace versus competition. For Beer (1990a), it is important to use external measures of performance rather than the organization's own past standards for performance. He found that the urgency and reality of a problem was conveyed most effectively by exposing employees to samples of competitive products, letting them visit customers and suppliers, and asking customers and suppliers to make presentations at the company's facilities. Spector (1993) emphasized that sharing information that had previously been available only to the top management has several positive side effects in addition to spreading dissatisfaction. According to Spector, information of this kind is a symbolic way of equalizing power, overcoming conflict, and building trust.

Linking the change effort clearly and obviously to the core strategic issues of the firm. Employees must perceive the required changes to be critical to the basic strategic issues of the organization. According to Nadler and Tushman (1993), the connection should be so clear that the relationship between change and the company's health and survival is obvious. This point was confirmed recently in a survey of restructuring efforts at 531 US companies. Executives quoted the number one success factor to be that the restructuring was based on a clear business imperative (The Wyatt Company, 1993). Another survey of 398 managers, consultants, and researchers that had participated in large-scale change programs found that the more a program is directly tied to clear and well-understood business needs, the better (Covin and Kilman, 1990). In the same way, Beer (1990a) found that one of the key problems with corporate 'change programs'[7] was that the efforts were not tied to major business problems or strategy.

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[7] *Beer et al. (1990[a]: 24) refer to 'chage programs' as off-the-shelf, standardized programs not custumized to the needs of the business units. These programs were found to focus on one particular human resource*

Exposing employees to internal or external model organizations. Seeing radically different and better ways of managing a business can be a real eye-opener (Beer, 1990a). Spector (1993) observed that success models not only help to spread dissatisfaction with the status quo; they also provide a vision of the future and of what is possible. Within a corporation, managers can hold up some plants or business units as models, thus creating dissatisfaction in many of the other units or plants. Alternatively, employees can visit external model companies or participate in benchmarking (See details presented in section 6.3.1).

Providing enough psychological safety to avoid undue anxiety and defensiveness. Hamel and Prahalad (1994) emphasized the difference between a sense of urgency and a sense of anxiety. Whereas a sense of anxiety is immobilizing, a sense of urgency generates energy. According to Schein (1998; 1989), *unfreezing* a system involves three aspects. First, to disconfirm the present state; second, to arouse some anxiety or guilt because some goals will not be met or some standards will not be achieved; third, to provide enough psychological safety to make it unnecessary for the target individuals or groups to psychologically defend themselves.

According to Schein (1988), the essence of an effective unfreezing process is a balancing of enough disconfirmation to arouse an optimal level of anxiety or guilt, without arousing it so much as to cause some defense mechanism to arise.

Lawler (1989) observed that any change effort that criticizes the way things have been done in the past would produce defensiveness. Usually the people who have created the past practices and policies are still in the organization, and it is impossible for them to separate criticism of their systems from criticism of themselves. One way to overcome this is to emphasize that the problems have to do with changes in the environment. It can for example be argued that the practices or policies are no longer effective because the environment has changed, not because they were wrong from the beginning. Burke (1987) suggested that a simple yet formal recognition that people had worked on important projects and that significant contributions were made, can help employees focus on the future instead of dealing with their wounded pride.

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management issue like employee's skills, leadership style, structure or culture and were often led by the

Demanding improved performance and behavior. Beer (1990a) found that general managers need to set demanding objectives for both ends (business results) and means (teamwork and behavioral change). The importance of demanding both results and behavior was supported by quantitative survey data. One way that managers can demand improved performance is by threatening to withdraw resources or investments to plants and units that are reluctant to implement changes. Schaffer reached a similar conclusion, as well as Thomson (1992), who noted that the first thing managers must do to create change is to demand specific, measurable and operational improvements.

Conveying credible positive expectations for the change. This aspect is fundamentally about answering the question: "What's in it for me?" According to Eden (1988), organizational members invariably have expectations about the results of organizational changes, and those expectations can play an important role in generating motivation for change. The expectations can serve as a self-fulfilling prophecy, leading members to invest energy in change efforts they expect will succeed. When employees expect success, they are likely to develop greater commitment to the change process and to direct more energy into the kinds of constructive behaviors needed to implement change (Eden 1986). The key to achieving these positive effects is to communicate realistic, positive expectations about the organizational changes. This aspect is linked to the process of creating a vision, which is the subject of the next section.

4.3.4. Creating a Vision

According to Weisbord (1987b), and Dannemiller and Jacobs (1992), the concept of a *preferred future (or vision) approach to planning* can be ascribed to Lippitt. Prior to Lippit's innovation, a problem-solving orientation held sway as the dominant approach to planning. In the 1950's Lippitt started using images of potential as springboards for change. Later, in the 1970's, Lippitt compared a problem-solving group and a group visualizing their preferred future. The latter group envisioned the future they preferred. This future-oriented group increased in energy, ownership of the situation, and developed more innovative, future-oriented goals and plans than did their counterparts in the problem-solving groups (Dannemiller and Jacobs 1992).

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human resource function.

The *preferred future approach* has several advantages. Stewart (1993) emphasized that creating a description of what could be the future avoids becoming mentally trapped by an exhaustive analysis of what the situation is now: “Once the planning team had created a vision of the future, they saw the present and the past with fresh new eyes” (Stewart 19939). In other words, *what is* can be a great barrier to *what could be*. Stewart therefore recommends that those who want fundamental change should begin at the end – that is, with where they want to be.

Beckhard and Harris (1987) mention the following advantages of the vision approach; first, creating a vision generates optimism since the focus is on describing a favorable and desirable future state. By contrast, an initial focus on the 'imperfect' present situation tends to magnify negative experiences. Second, the vision helps people identify with the end state by providing information that help employees understand what is desired. Third, the vision reduces uncertainty about the changes. According to these authors, uncertainty and misperceptions about the implications of change for one's own future role and responsibilities is a major cause of resistance to change. Fourth, the vision approach focuses managerial attention on the future and long-range goals, instead of focusing on short-term *quick fixes*. An additional advantage mentioned by Jick (1993c), is that visions make people feel proud of being part of something larger than their career. Beer (1990a) emphasized that a vision allows revitalization initiatives to be integrated as they unfold over time.

The *importance of a vision to the change process* has been widely documented in the literature. All the models of top-down direction setting reviewed in section 4.1 and numerous other sources emphasize the importance of visions. For example, scholars like Kanter (1989) have argued that “the most powerful way to encourage people to embrace change is to develop a shared vision of an even more positive future”. Senge (1992) believes that “nothing motivates change more powerfully than a clear vision”. Also practitioners confirm the key role of a vision in any change effort. In a survey of 350 executives made by Arthur D. Little (1994) “a clear vision or objective” was mentioned as the most critical factor in implementing change (quoted by 95 percent of respondents).

Having briefly explained the vision concept, its advantages and importance to the change process, the next question is *how a vision can be defined and what the components of a vision are*. Although the term *vision* is widely used in both the academic and popular literature, definitions of the concept vary from author to author. This has led to some confusion as illustrated by the following quotation from a CEO: “I've come to believe that we need a vision to guide us, but I can't seem to get my hands on what a *vision* is” (cited in Collins and Porras 1991). Some disagreement was also found in the academic literature with regard to the concept of vision (Beckhard and Harris 1987). Conversely, what Beckhard and Harris term core mission is what Collins and Porras (1991) call “guiding philosophy”. One possible explanation for this confusion is that the word mission has two different meanings (Webster's New World Dictionary 1991). One of them, namely *purpose or calling*, is tied to religion, whereas the other: *specific combat operation* originates in the military. The following therefore attempts to clarify the meanings of mission and *vision*.

A *mission* can be defined as an organization's major strategic purpose or “reason for being” (Beckhard and Harris, 1987); Cummings and Worley 1993); Collins and Porras (1991), describe it as an organization's “*guiding philosophy*”. The term comes from the early leaders who originally shaped the organization, and it tends to be clear as long as the leaders are active in the enterprise. According to Collins and Porras (1991), the guiding philosophy consists of two key elements: core values and beliefs, and purpose.

According to Collins and Porras (1991), “Basic precepts about what is important in both business and life, how business should be conducted, its view of humanity, its role in society, the way the world works and what is to be held inviolate”. In outstanding organizations the values and beliefs are deeply felt and reinforced by key individuals during the organization's history. The purpose is an outgrowth of an organization's core values and beliefs. The statement of purpose should quickly and clearly convey how the organization fills basic human needs. “A good purpose statement is broad, fundamental, inspirational, and enduring; it should serve to guide an organization for at least 100 years”. A study of 218 Fortune 500 companies showed that higher financial performers prepared written mission statements for public dissemination (Pearce and David, 1987).

The *vision* should be developed bearing in mind the above mentioned “mission”, or “guiding philosophy” of the enterprise (Beckhard and Harris, 1987); (Jick, 1993c). A “vision” has been defined as the desired future state of the organization (Tichy and Ulrich, 1984); (Beckhard and Harris, 1987(; (Cummings and Worley, 1993), a picture of a future state for the organization (Beckhard and Pritchard, 1992), a model of the future state (Beer, 1990a), a declaration of the organization's most desirable future (Richards and Engle, 1993), an attempt to articulate what a desired future for a company would look like (Jick, 1993c) and finally, an attempt to articulate, as clearly and vividly as possible, the desired future state of the organization (Belgard, 1990). Collins and Porras (1991), refer to the same concept as *tangible image* consisting of a *mission* and a *vivid description*.

Normally, the vision identifies the broad parameters for change, leaving the specific details to be worked out during implementation. It provides a valued direction for guiding and assessing change activities, and aligns key players as well as energizes commitment to change by providing organizational members with a common challenge and goal. According to Belgard (1990), a good vision should “ignite the imagination and help others rethink what is possible”. Beckhard and Pritchard (1992) emphasize that a vision is more than a dream or set of hopes, it is a commitment by top management. Jick (1993c) underlines that the true value of a vision is to guide behavior. According to Jick (1993c), effective visions are:

- clear, concise, easily understandable,
- memorable,
- exciting and inspiring,
- challenging,
- excellence-centered,
- stable, but flexible,
- implementable and tangible

Recent literature has emphasized the importance of building the vision around a few themes (Beckhard and Pritchard, 1992; Nadler and Tushman, 1993). Beckhard and Pritchard (1992) identified five such themes that can be used to drive the change effort. They are mission, way of work, culture, relationship to key stakeholders, and identity or outside image. Beckhard and Pritchard (1992) argue that all these five themes are interconnected, and that changes in one of them will lead to changes in the others. However, these authors argue that change will be facilitated if top management can identify and manage the change with one of these perspectives as a pulling force.

Nadler and Tushman (1993) emphasize that the number of themes that can be initiated and sustained is limited. As a general rule, the authors do not recommend more than three themes, However, these broad themes, which are consistent over time, can help integrate a great number of individual activities and projects. One source suggested *a rule of three and 300*; three simple but compelling themes can legitimize and sustain up to 300 separate but consistent organizational initiatives (Hsieh and Bear, 1994). Welch, General Electric's CEO, has illustrated the importance of this point:
According to Tichy and Sherman (1993b), "You don't get anywhere if you keep changing your ideas. The only way to change people's minds is with consistency. Once you get the ideas, you keep refining and improving them; the more simply your idea is defined, the better it is ... {...} Consistency, simplicity, and repetition are what it's all about".

In addition to the vision, which should be based on an underlying mission, some authors have argued for the need to specify a *midterm goal* (Beckhard and Harris, 1987; Cummings and Worley, 1993). The midpoint goal represents desirable organizational conditions between the present state and the achievement of the vision or future state. According to the above authors, the midpoint goal should be a clear and detailed behaviorally scenario of the organization at a specific point in time that can serve as a benchmark for change. The importance of midterm goals was confirmed by a recent survey of 497 North American and 124 European companies (CSC index, 1994). The survey found that one of the most common project management problems is losing focus on the scope and goals of the project. This was found to happen particularly when project teams have ambitious beginning and end points, but fail to set enough interim milestones and results to make sure they are on course (CSC index, 1994).

The question of *who should create the vision* was found to be a point of disagreement in the academic literature. The different points of view can be imagined as three points along a continuum with a pure CEO/leader developed vision at one end, a combination of leader, senior team, and opinion tender's developed vision in the middle, and a participative developed vision involving 'everybody' at the other end. At one end, Richards and Engle (1993) argue that vision statements are 'best written by one person, namely the senior person in the organization. Tichy and Devanna (1986) and Tichy (1993) see the vision as the responsibility of the leader, but emphasize that visions in large, complex organizations tend to express the commitment of a core group of leaders. As argued by Tichy (1993) "envisioning is not a democratic process. All revolutions are led by a minority of leaders, a committed core group". Hilb (1994) argues, for a *Matriarchal* approach to creating the vision: the leadership team and key stakeholders first develop a worldwide, corporate vision. Subsequently, the corporate vision is adapted to the needs of local organizational subunits through, overlapping workshops. These workshops also provide valuable feedback for the corporate vision. Finally, there are some approaches that recommend developing the vision in a purely "bottom-up" manner (see section 6.3.1., vision influencing).

Consistent with the view that top-down direction setting needs to occur at all levels of the organization, this dissertation also believes that visions can be put in place at any level in the management hierarchy. Similar views have been expressed by Belgard et al. (1990) and Collins and Porras (1991). According to Collins and Porras (1991), "vision-setting should take place at all levels of an organization and each group should set its own vision – consistent, of course, with the overall vision of the corporation".

A final aspect of visions is their form. This was also found to be a point of disagreement in the literature. Some authors argue that visions are captured in written documents (Richards and Engle, 1993). Others point to a combination if oral and written documents (Tichy, 1993). One source suggested the use of pictures and even to make a video to capture the vision (Carr, 1994). Considering the vision framework suggested by Collins and Porras (1991), a combination of written and oral statements is plausible. Whereas the 'guiding philosophy', or, in other words, the purpose, core values and beliefs of a mature organization are likely to be captured in a written document, the 'tangible image', or desired future state might be expressed primarily through speeches, discussions and other oral forms of communication.

4.4. Phase Two: Managing the Transition

4.4.1. Introduction

The previous section discussed the elements of initiating change. This section discusses the management of the transition state, i.e., the period between the present state and the desired future state. The transition state contains elements of the old as well as the new, and there is a need for stability as well as a need for change during this phase. Key steps in managing the transition *include communicating the vision, mobilizing commitment to the vision, planning the transition, implementing learning, and dealing with resistance to change*.

As a matter of fact, according to Hodge, Anthony and Gales (1996), most approaches to organizational change attempt to fix or change portions of the organization. Even attempts to change the culture may only modify components of the organization - changing values, norms, beliefs, and expectations. It is true that some of these changes can be quite radical and may result in more efficient and effective organizations. *Organizational Learning* offers a different perspective on change and organization that addresses the fundamental nature of an organization. The organizational learning perspective is an attempt to create an organization that is able to continually monitor the environment and to adapt to changing conditions.

The organizational learning framework proposes that organizations, much like people, have memory and can learn. Clearly organizations are made up of people who think and learn, but the organizational learning framework goes a step further. Organizational memory and learning are more than just the aggregate of individual memory and learning. Organizations have a memory of what works and what does not work, as well as a rich history of past events. This memory is stored in a variety of forms including documents, policies, procedures, reports, products, databases, and most important, what is in the minds of employees of the organization - sometimes referred to as human capital. Most managers underappreciate the fact that people carry around a great deal of know-how in their minds, often in the form of tacit knowledge. This fact sometimes becomes evident when organizations undergo downsizing and release employees with key tacit knowledge relevant to the organization.

According to Senge (1990), Sims and Gioia (1986), Garvin (1993) and Dumaine (1994), several organizational authorities have written extensively about what constitutes organizational learning. We have synthesized them into the following five attributes of a learning organization. According to Hodge, Anthony and Gales (1996), first, a learning organization develops systematic approaches to problem solving, getting an understanding of what works and what does not work, learning from experience, and learning from the best practices of others. Second, in a learning organization people must override past mental models. This is sometimes referred to as "thinking outside the box." People must become used to trying new things, experimenting. Third, people in the learning organization must develop personal mastery, including developing skills to be open with others.

Like many of the approaches to organizational change mentioned earlier, communication is key to learning. Such communication is critical to the fourth characteristic of a learning organization, i.e., transferring and disseminating new knowledge quickly and effectively throughout the organization. Knowledge, information, and skills should not be hoarded or hidden from other members of the organization. Finally, the learning organization should use the learning process and the transference of information to develop and pursue a shared vision.

Table 2 summarizes characteristics of the learning organization.

The Learning Organization

1. Develops systematic approaches to problem solving to understand what works and what does not work in the organization.
2. Develops the ability to "think outside the box"; override old, outmoded ways of thinking.
3. Develops personal mastery of skills.
4. Transfers and disseminates knowledge and information throughout the organization.
5. Develops a shared vision of the organization's world.

Table 3. The Learning Organization Source: Senge (1990).

Peter Senge, one of the principal advocates of organizational learning, maintains that learning organizations derive competitive advantage from constant learning. Becoming a learning organization involves a transformation in thinking. Members can no longer think that any one person has all the answers. According to Dumaine (1994), Senge further notes that, "People working together with integrity, authenticity and collective intelligence are profoundly more effective as a business than people living together on politics, game playing, and narrow self-interest.

According to Hodge, Anthony and Gales (1996), now that we have explored a variety of approaches to organizational change, we need to consider those factors or conditions that pave the way for change. Researchers and practitioners have identified conditions that make change strategies more likely to be successful. The list of characteristics presented below assumes that the change plan has been clearly developed and documented. This should include a time line for implementation and goals or benchmarks for performance.

Top Management Support

For any change strategy to be successful it must gather the support of the top management. Without that support, it is likely that lower-level managers will view the change strategy with suspicion. Moreover, it may be risky for managers to pursue actions that lack top management support.

Structural support

According to Duncan (1976), McDonough and Leifer (1983) and Daft (1992), the *ambidextrous organization* possesses both organic and mechanistic structural characteristics. According to Hodge, Anthony and Gales (1996), organic characteristics are necessary for the flexibility and creativity required to generate new ideas. Product development teams, research and development departments, or teams and task forces devoted to developing change strategies are given organic characteristics. However, change strategies that effectively diffuse through the organization and become institutionalized (i.e., part of the daily fabric of the organization) require some degree of formalization, standardization, and centralization, all mechanistic characteristics. Although some organizations may simultaneously possess ambidexterity, other organizations achieve similar results by switching from organic to mechanistic as they go through the process of first developing a change strategy and then implementing it.

One way of achieving this ambidextrous nature on a temporary basis is through the use of teams or task forces with specific responsibility for developing and implementing the changes.

Champions

A champion is an enthusiastic supporter of a proposed change. A champion can be critical to the successful development and implementation of any type of change strategy. The champion can answer questions, remove roadblocks, and persuade those who resist.

Communication

According to Nadler (1989), change does not occur in a vacuum. People need to be informed about the nature of the proposed change and how that change is likely to affect them. Resistance, confusion, and anger can be minimized with clear and timely communication about the nature and impact of the proposed changes. These communications can include meetings, videos, documents, and briefing sessions.

Resources

According to Kidder (1981), although there are stories of organizations successfully pulling off changes or innovations with very limited resources, these are the exception rather than the rule. Change is risky for an organization, and underfinancing a change strategy merely increases the risk. If an organization is going to expose itself to the risk and uncertainty associated with change, it should provide adequate resources, including personnel, equipment, facilities, consultants, and money.

Resources are a two-edged sword, however. Often an organization in need of change lacks a generous supply of resources. Slack may provide a cushion for experimenting and taking risks. According to Damanpour (1987), however, an abundance of resources may also lull an organization into complacency, and it may fall to perceive the need for change.

4.4.2. Communicating the Vision

The importance of communication for the change process has been widely highlighted in the literature. Successful change efforts tend to be accompanied by a high degree of consistent, broad-based communication (Covin and Kilmann, 1990). Conversely, overlooking communication has been quoted as an important reason for failure (Hall 1993). Smeltzer (1991) studied announcements of organization-wide change in 43 organizations and concluded that change efforts often failed due to the presence of inaccurate and negative rumors. These rumors were often caused by management's neglect to provide timely and accurate information. Also, managers themselves recognize their inability to provide sufficient information. In a recent survey of 531 US companies, managers quoted to improve communication to employees as the number one change they would have made to the way their organizations dealt with restructuring (The Wyatt Company, 1993).

A detailed examination of the broad subject of communication reveals a multitude of aspects. For example, top management relies not only on internal stakeholders, but also on external constituencies for success in implementing fundamental change. Some of the groups that can play an important role are customers, regulatory bodies, suppliers, and stockholders. According to Hambrick and Cannella 1989), these external constituencies are no different from insiders in their potential for skepticism and anxiety about a change in direction. Communication therefore needs to address not only internal, but also external stakeholders. In order to facilitate the discussion of the key aspects of communication, this dissertation will divide the subject into three categories: communication through words, communication through actions, and communication through signals and symbols.

Similarly, Isabella (1993) recommended that managers should provide information even if it is speculative or incomplete. If one does not know, then say so (Isabella 1993). According to Isabella, managers should also be aggressive in terms of hearing and addressing rumors. A survey by the Wyatt Company (1993) found that companies who succeeded at restructuring tended to communicate with employees about restructuring issues earlier in the process than companies that fell short of their goals. It is necessary an open and a broad-based communication throughout the whole change process

(Larem 1993). According to Jick (1993[a]), the criteria for a constructive change announcements are the following:

Another aspect of communication through words is the completeness, or quantity and quality of the information that is shared. According to some observers, management tends to strongly underestimate the quantity of information needed during a change process.

Another aspect is the quality of the information that is shared. Some authors have argued for an *immediate and full disclosure* of information (Marshall and Yorks 1994). Others contend that the amount of appropriate disclosure depends on the situation (Smeltzer and Zener, 1992; Jick, 1993a). One important aspect of change that is closely tied to the amount of disclosure of information is trust. According to Duck (1993), one of the paradoxes of change is that trust is the hardest thing to establish when you need it the most. One way of gaining the trust of employees is through a continuous, honest and plain-speaking communication program (CSC lndex 1994). Another observer declared that 'confidentiality is the enemy of trust' (Hurst 1991). Hurst, speaking from his experience as a manager in a major turnaround, observed that there was a direct link between the information that was shared with employees and their commitment.

In addition to the above-mentioned *timing and completeness* of information, Hilb (1994) identified two additional principles of communication. They are objectiveness and clarity. While communication can never be fully objective or impartial, Hilb recommends that it should be as close to the objective truth as possible. The principle of clarity and understanding implies that the information should be presented in a way that fits the needs and context of the user.

A final aspect of communication through words is its channel richness. Channel richness is the ability to use all the communication cues and allow for quick feedback and revision through questions and answers (Smeltzer and Zener 1992). The richest form of communication is face-to-face between two people. The least rich form is written messages. Recent authors have emphasized the advantages of two-way communication. According to Hall (1993), “two-way communication will do far more than any memo or video can”. A key advantage of the small-group format is that employees can give feedback and air their concerns. Beckhard and Pritchard (1992) stress that passive, one-way communication may engage people intellectually, but does not necessarily result in an emotional commitment. On the other hand active, two-way communication is designed to involve people personally and make them engage with the subjects emotionally as well as intellectually.

Despite the clear advantages of two-way communication, a recent survey (the Wyatt Company, 1993) indicates that one-way communication is still the most frequently used by managers. In the survey, managers quoted letters and memorandums as the most frequently used communication tactic is support of restructuring (used by 83 percent of respondents). Letters and memoranda were commonly used despite the fact that only 28 percent quoted this communication tactic to be *very effective*. On the other hand, small group meetings of less than thirty employees were quoted as *very effective* by 63 percent of managers, but were only used by 65 percent of managers (The Wyatt Company, 1993).

The vision can also be *communicated through actions* According to an estimate by a leadership expert, ninety-five percent of American managers today say the right thing, but only five percent actually do the right thing (O'Toole quoted in Huey, 1994). According to Duck (1993), employees have now been through so many management fads and change programs without real changes that they are skeptical. Companies are full of change survivors, people who have learned live through change programs without really changing at all. The attitude of the change survivor is: 'I'll believe it when I see it' (Duck, 1993). What this illustrates is that people want to know if something is 'really' going to happen before they are willing to invest their effort in a change program. Observers have therefore highlighted the need for leaders to *walk the talk* (Duck, 1993), i.e., practice what they preach (Beckhard and Harris, 1987), and behave in new ways that indicate strong commitment to the vision (Beckhard, 1990).

According to Maccoby (1981), one of the key attributes of successful leadership was found to be the ability and willingness to behave in ways consistent with the changes they were trying to bring about in their organizations. Likewise, Beer (1990a) found that consistency between the leader’s words and actions was critical at the business unit level. Another study found a 'visible demonstration of senior management commitment' to be the second most important implementation factor after a clear vision (Arthur D. Little, 1994). However, despite this apparent agreement among researchers and managers on the need for leaders to change their own behavior, and practice what they preach, Pascale indicates that this is seldom the case:

“The rarest, yet most essential, ingredients in successful change are top executives who are willing to suffer and change themselves” (Pascale, 1990).

One important way for leaders to visibly demonstrate their commitment to the new way is the act of replacing resisting managers. However, in order to be considered fair by the rest of the organization, this should only be done after the managers have been given a chance to change and prove themselves in the new environment (Beer, 1990b). Beer (1990a), found that 50 percent of successful change efforts involved replacing key personnel whereas only 17 percent of unsuccessful efforts included personnel replacements. Although replacing key people can be “the most unpleasant thing you have to do in life” (Welch, 1993), “misplaced kindness” is a key reason why many change processes have foundered (Young 1991). Another way that management can communicate through actions is by changing the way they allocate resources. By allocating resources in accordance with the vision they are trying to implement, their commitment is made visible.

In addition to communication through words and actions, a third category of communication is through the use of *signals and symbols*. The following quotes illustrate what is meant by these concepts:

According to Allaire and Firsirotu (1985), “During periods of transition, more than any other time, the members of the organization will be looking out for signals - watching for clues, inferring intents and motives - to see which way the organization is going. Any discrepancy between the leadership's words and needs will be spotted”. “The assumption ... {}... is 'we haven't said anything yet, so we're not really communicating. We haven't sent any messages'. But the opposite is true. Everything that is or is not done sends a message” (Duck, 1993).

Although no clear-cut distinction was found in the literature between communication through actions on the one hand, and signals and symbols on the other hand, the above quotations illustrate that signals and symbols can be regarded as more subtle and indirect. Not doing something is not an action, but it can send an important signal. No difference in definition was found between the words *symbol* and *signal*.

According to Nadler and Tushman (1993), senior management's time appears to be one of the scarcest resources in large-scale change efforts. Several observers have argued that fundamental change requires top management to spend between 20 and 60 percent of their time on change-related activities (Hall, 1993; Heygate, 1993; Arthur D. Little, 1994). *Such an investment of top management time sends important signals to the organization about commitment*. A survey of 398 individuals who had participated in large-scale change programs quoted visible *management support and commitment* as the number one success factor for change (Covin and Kilmann, 1990). Another survey of restructuring found 'senior management visibility' as the third most important factor facilitating success ('The Wyatt Company, 1993).

Detailed reviews on the role of symbols in management were provided by Peters (1978) and Pfeffer (1981). They observed how the use of political language and symbolic action serves to legitimate and rationalize organizational decisions and policies. Peters (1978) focused on how change can be implemented through *mundane behavior*, the sending of signals by the leader through everyday actions as opposed to grand gestures. Some of the examples of mundane behavior listed by Peters include the type of issues that get on the executive's agenda. The kinds of questions the executive is asking, the kind of feedback the executive is giving, the control over location, attendance, and agendas of events or meetings, the summarization of post-hoc interpretations of what occurred, approaches to follow-up and small symbolic actions including the use of praise and punishment.

4.4.3. Mobilizing Commitment to the Vision

The problem of securing an organization's commitment to a particular strategy has been largely neglected in the strategic management literature (Guth and Macmillan, 1986). On the other hand, the literature on organizational change has developed some approaches to address this challenge. Most of these methods view the organization as a political system

From a political standpoint, organizations can be seen as loosely structured coalitions of individuals and groups having different preferences and interests and who are therefore competing for power (Tushman, 1977; Salancik and Pfeffer, 1977). Given this view of organizations, political behavior is thus a natural and expected feature of organizations in both current and future states. However, attempts to change the organization can lead to increased levels of political activity, as the changes may threaten the balance of power among groups. Power groups will be concerned about how the conflict of the transition period might affect the balance of power in the future state, and they will therefore attempt to maintain or improve their own position, leading to political conflicts and struggles (Nadler, 1987). Individuals and groups may also engage in political action for ideological reasons as the change might be inconsistent with their shared values, culture or image of the organization (Pettigrew, 1973).

Recent literature focusing on the aspect of mobilizing commitment to a vision have used several different terms to describe this process including: *Mobilization of commitment* (Tichy and Ulrich, 1984), *Commitment planning* (Beckhard and Harris, 1987), *getting the support of key power groups* (Nadler, 1987), *developing political support* (Cummings and Worley, 1993) and *line-up political support* (Jick, 1993a). This dissertation uses Tichy's term *mobilizing commitment to the vision*.

A person is committed to a vision when he or she pursues that vision in a consistent fashion. With the passing of time and in varying situations, the committed person persists in activities that will help achieve the vision. Alternative courses of action that are not consistent with the vision are rejected, even if they might have short-term benefits. Finally, the committed person understands that personal sacrifice will be necessary along the way (Conner and Patterson, 1982). This type of committed person can be deemed as somebody who *helps to make change happen*. However, such a strong commitment might not be needed from everybody.

Several authors have developed methods for developing the commitment of both formal and informal leaders in the organization who are instrumental in making change happen.

For example, Pfeffer (1992) developed a process for using power to get things done. An overview of the process recommended by Pfeffer is included in the following paragraph. However, while the process of using power recommended by Pfeffer may be appropriate for getting small and medium things done, it is unlikely to foster the long-term commitment to a vision, which is necessary in fundamental change.

- Decide what your goals are, what you are trying to accomplish?
- Diagnose patterns of dependence and interdependence; what individuals are influential and important in your achieving your goal?
- What are their points of view likely to be? How will they feel about what you are trying to do?
- What are their power bases? Which of them is more influential in the decision?
- What are your bases of power and influence? What bases of influence can you develop, to gain more control over the situation?
- Which of the various strategies and tactics for exercising power seem most appropriate and are likely to be effective, given the situation you confront?
- Based on the above, choose a course of action to get something done.

According to Cummings and Worley (1993), the process of developing political support should start with *an assessment of the change agent's own sources of power*. By assessing their own power base, change agents can determine how to use it to influence others to support the change. Greiner and Schein (1988) identified three such sources of individual power in addition to the formal position of the leaders: they were knowledge, personality and other's support. Knowledge refers to expertise that is valued by others, and to controlling important information. Personality refers to charisma, reputation, and personal credibility, and other's support refers to the access to information and resource networks. After having completed this initial assessment of the leader's own power base, the process for developing the commitment of those individuals and groups who are vital to the change effort can be initiated. The framework that was developed by Beckhard and Harris (1987) appears useful. Their model consists of the following steps:

- Identify target individuals or groups whose commitment is needed.
- Define the critical mass needed to ensure the effectiveness of the change.
- Develop a plan for getting the commitment of the critical mass.

- Create a monitoring system to assess the progress

Beckhard and Harris (1987) define critical mass as '*the minimum number of individuals or groups who must support the change or it won't happen'*. The authors emphasize that the critical mass is not the same as those individuals or groups within the organization that would be significantly affected by the change. The critical mass is rather those individuals or groups whose active commitment is necessary to provide the energy for change to occur (Beckhard and Harris, 1987).

Burke (1987) observed that gaining the commitment of *informal* leaders is often overlooked in organizational change. *Middle* managers represent another powerful group, which is often overlooked in the commitment planning. In the strategic management literature, Guth and MacMillan (1986), concluded that middle managers could not only redirect a strategy, delay, or reduce the quality of its implementation, but also even of sabotaging it altogether. It is therefore important to carefully review which middle managers need to be included in the critical mass. Similarly, Wooldridge and Floyd (1990) found that middle management involvement in the formation of strategy is associated with improved organizational performance. Finally, Westley (1990) found evidence of dissatisfaction among middle managers who perceived to be excluded from strategic processes.

A method that can help to define the critical mass was provided by Cobb (1986). This author stated that such a political diagnosis must be performed at three levels: individuals, coalitions, and networks. For example, at the individual level, management needs to identify people who hold powerful positions, have reputations for power, or have influenced decisions on organizational issues in the past.

Finally, after a leader has assessed his or her own sources of power, identified the individuals and groups whose commitment is needed to implement change and defined the critical mass, the next step is getting the commitment of the critical mass. Several tactics to get the commitment of individuals were identified in the literature. According to Beckhard and Harris (1987), the level of commitment needed may not be the same for everybody. These authors distinguish between three levels of commitment: to let it happen, to help it happen, and to make in happen. According to Beckhard and Harris

(1987), it is sufficient to get the *minimum* commitment judged necessary from each individual or group. Leaders should not expect everybody to be ready to make change happen.

One of the most important ways of building commitment is to get the key individuals and groups involved in the change to make them see it as their own rather than something that has been imposed upon them. The assumption that people who participate in defining problems and solutions will, as a result of that participation, become committed to the result of the process, is considered to be one of the most crucial of all organizational behavior theories (Coch and French, 1948: Fleishman, 1965). According to Pascale (1990), participation was an important factor in winning the commitment of the organization in the fundamental changes implemented at Ford. As one of Ford's managers observed, quoted by Pascale (1990):

"We identified the key individuals whose support (to the problem we were trying to solve) was critical. We put them on a team, or task force. We trained them and provided protected opportunities to experiment".

According to Nadler (1987), participation may not be feasible or wise in all situations. Nadler argues that participation in many cases merely increases the power of opposing groups to forestall the change. In these cases, another approach suggested by Nadler is bargaining with groups, winning their support by providing some incentive, for individuals who neither want to participate nor to bargain. Nadler (1987) suggests either assigning them to a position outside of the mainstream or to remove them entirely through transfer or outplacement. Nadler prefers the methods of participation and bargaining, but concludes that "it would be naive to assume that they will be successful in all cases" (Nadler, 1987). Finally, as a last step in the process of building commitment, Beckhard and Harris (1997) suggested creating a monitoring system to assess the progress.

4.4.4. Planning the Transition

The last three sections have dealt with the vision: how to create it, communicate it, and mobilize commitment to it. The next important step in the change process is to develop a plan for getting from the present to the future. Senge (1990b) called this process the 'principle of creative tension'. According to Senge, creative tension comes from seeing clearly where one wants to be, the 'vision', and at the same time having an accurate picture of current reality. The gap between the two generates a natural tension. Senge (1990b), argues that both a compelling picture of the desired future and an accurate picture of current reality are equally important:

Leading through creative tension is different than solving problems. In problem solving, the energy for change comes from attempting to get away from an aspect of the current reality that is undesirable. With creative tension, the energy for change comes from the vision, from what we want to create, juxtaposed with current reality. While the distinction may seem small, the consequences are not. Many people and organizations find themselves motivated to change only when their problems are bad enough to force them to change. This works for a while, but the change process runs out of steam as soon as the problems driving the change become less pressing. With problem solving, the motivation for change is extrinsic. With creative tension, the motivation is intrinsic (Senge 1990b).

Another perspective in the process of moving from the present state to the future state was provided by Davis (1982). He suggested a *retrospective strategy*, or, in other words, treating the future state as if it were the present state. Thus, the *present is the past of the future*. Davis explains: “The only way that an organization's leaders can get there (the desired future) from here (the present state) is to lead from a place in time that assumes you are already there, and that is determined even though it hasn't happened yet”.

The importance of planning to the change process was illustrated recently by a survey of restructuring efforts. Managers quoted improving planning as the fourth most important thing they would change if they could do it over again (The Wyatt Company, 1993). Developing a transition plan involves making a road map for change, citing specific activities and events that must occur if the transition is to be successful. The transition plan should clearly identify, temporarily orient, integrate discrete tasks, and link these tasks to the vision. Responsibilities must be clarified, and benchmarks and standards for performance decided upon. The plan should he approved by top management, be cost effective and be adaptable as feedback is received during the change process (Cummings and Worley, 1993).

The transition plan should also clarify *what needs to be changed and what does not*. For organization members, it is just as important to be informed about what will not change as it is to be informed about what will be different. During times of significant change, to be clear about what is not changing provides people with something stable to hold on to, an anchor (Burke 1987). In other words, there is a need to build in a certain stability in all the changes. If not, too much uncertainty can create anxiety, defensive reactions, and political conflict (Nadler, 1987). Since the values from an organization's mission or guiding philosophy are not likely to change, at least not all of them, emphasizing these enduring values can provide an important sense of stability.

Finally, there is a need to create special management structures to manage the transition from the present to the future state. Kanter (1983), named this a parallel organization. It has been noted that it is frequently difficult for a hierarchy to manage the process of changing by itself (Nadler, 1982b). This is due to two factors. First, change disrupts the normal course of events within an organization leading to a weakening of existing systems of management control. As a result, during a change the organization may lose the capacity to effectively coordinate the work being done. Second, most formal organizational arrangements are designed for quasi-stable states and not for periods of fundamental change (Nadler, 1981). It may therefore be necessary to develop special management structures outside of the regular organizational structure to manage the change process. These management structures should include people who have the power to mobilize resources to promote change, the respect of existing leadership and advocates of change, and the interpersonal and political skills to guide the change process (Cummings and Worley, 1993). Beckhard and Pritchard (1992) suggest the following options:

- Top management ... ( )... could become the project managers.
- Top managers could appoint a 'czar' or project leader.
- The change could be managed by creating a special change management team.

In a fundamental change effort, it might well be necessary to create multiple change management teams assigned to different change tasks. Finally, the existence of the change management teams and their role should be communicated to all the relevant parties.

4.4.5. Implementing Learning

Recent literature has remarked the importance of learning in the organizational change process. In a recent academic conference on large-scale organizational change, there was widespread agreement that large-scale change requires learning and understanding, and that the change process therefore should be one of shared inquiry (Mohrman, 1989). Beckhard and Pritchard (1992) declared that: “Probably the single most important process involved in effective change is the process of *learning while doing*”. These authors emphasize that learning and change processes are part of each other: 'Change is a learning process and learning is a change process' (Beckhard and Pritchard, 1992).

Learning has been defined as 'the detection and correction of error', with an error understood as 'any mismatch between our intentions and what actually happens' (Argyris, 1989). Argyris and Schon (1978) made a distinction between *single-loop* and *double-loop* learning. In single-loop learning, members respond to changes in the internal and external environments in ways that allow them to maintain the current frames of reference, ways to think or act, or *theories in use*. In *double-loop* learning, error is detected and corrected in ways that involve modification of an organization's underlying standards, policies and objectives.

Another concept of strategic learning, named *experimental learning*, was provided by von Krogh and Vicari (1993). This concept emphasizes the importance of learning from provoked and natural experiments, including the creation of errors. This perspective is valuable since the change process is likely to include both experimenting and the creation of errors. A key aspect of experimental learning is to retain the knowledge about the experiment in the firm. First, the people who implemented the experiment should be kept rather than fired if it turns out to be a failure, and second, the lessons learned from the experiment should be shared widely within the company, even if it was not a 'success'. Finally, the knowledge from the experiments can then be applied to challenge the assumptions underlying the plans (Von Krogh and Vicari, 1993). This is similar to the demand put forward by Drucker (1994) to treat unexpected failure as symptoms of systems failure rather than the result of a subordinate's incompetence, and to treat unexpected success as a challenge to assumptions rather than to take credit for it (see section 4.3.l).

An important reason why learning is so important in the change process is that the complexity of large organizational systems makes it virtually impossible to predict how the change process will unfold. There will always be factors outside the control of those who make the changes. According to Schein (1988), "These factors may have a profound impact on the change process. Kurt Lewin once said that: in order to understand, you should try to change it". The implication is that one can not fully understand how the system will react to the changes before the changes have been actually initiated. In other words, learning must be built into the change process in addition to planning. Student (1978), concluded that unforeseen consequences in a change process are not always undesirable. Rather, they can represent important opportunities if one is able to recognize them.

A key prerequisite in the learning process is feedback. Change managers need to *develop feedback mechanisms* to provide information on the effectiveness of the transition and data on areas that require additional attention or action. According to Beckhard (1975), continuing feedback and information systems that let people know where they are in relation to the desired state are 'perhaps the most important single requirement for continued change'. Nadler (1982b) argued that the feedback devices managers normally use to collect information about how the organization is running often break down during a transition due to the turbulence of the change or due to the natural inclination not to convey 'bad news'. Nadler therefore recommends change managers to develop multiple, redundant, and sensitive mechanisms for generating feedback about the transition. This can include devices such as surveys, focus groups, and consultant interviews as well as the use of informal communication channels.

Beckhard and Pritchard (1992) argued that most companies measure results, but that the majority also overlooks measuring the *process of improvement*. The measurements and rewards should not only be *results-oriented*, but also *learning-oriented*. Measuring the process of improvement might include looking beyond the mere members to broader issues such as how people are responding to the change effort, new insights that have emerged, etc.

Finally, it is likely that there will be need to make *midcourse corrections* to the change effort based on the feedback and learning that is occurring. The change management team should be empowered to make such adjustments along the way. Cummings and Mohrman (1987) provided a list of factors that might lead to a need for adjustments in the change process. Although the focus of the authors was on organizational innovations such as work redesign and quality circles, their findings are likely to apply to any change process. The factors identified were:

- Learning can lead to modification of the innovation itself.
- Learning can lead to changes in the behaviors, values and understandings required to enact the innovation.
- Learning can result in discovering the situational contingencies impacting innovation success.
- Learning can lead to additional organizational changes needed to support the innovation.
- Organizational members can learn about changes in the wider environment that require modification of the innovation.

Summarizing the above, the learning aspect highlights the iterative nature of the change process, and the need to build in feedback mechanism and make midcourse corrections.

4.4.6. Dealing with Resistance to Change

When managers are asked to identify key obstacles to organizational change, 'resistance to change' is frequently listed as the number one roadblock to renewal (Schiemann, 1993; The Wyatt Company, 1993; CSC Index, 1994). Also in the academic literature, the problem of 'resistance to change' has received considerable attention over the years (Lewin, 1947; Coch and French, 1948: Watson, 1969; Zaltman and Duncan, 1977; Kotter and Schlesinger, 1991; Lawrence, 1991).

However, both managers and academics have frequently presented a too simplistic view of resistance to change. Managers often use term resistance to change as a phrase that describes virtually any problem in the change process. Academics, on the other hand, have sometimes treated resistance to change as a general reaction to be overcome, rather than taking a differentiated look at all the different reactions that are grouped under the 'resistance to change' banner.

According to Kahn (1982): "We must keep in mind the deceptive nature of our concepts. When we want change, we speak of those who do not as presenting obstacles and resistance. When we want stability, we speak of perseverance and commitment among those who share our views. Behavior of people in two situations might be identical; it is their stance relative to our own that dictates our choice of language".

According to Hultman and Jick (1993), "First, they {the 'resistors'} are the ones most apt to perceive and point out real threats, if such exist, to the well-being of the system which may be the unanticipated consequences of projected changes. Second, they are especially apt to react against any change that might reduce the integrity of the system. Third, they are sensitive to any indication that those seeking to produce change fail to understand or identify with the core values of the system they seek to influence".

The first quotation illustrates that resistance is a natural reaction. Resistance is a part of the natural process of adapting to change. Managers should therefore not be surprised when resistance occurs. Beckhard and Pritchard (1992) termed it a 'universal condition' that whenever there is a change effort, there will be resistance. The next three quotations illustrate that the judgment that someone *resists change*, depends strongly on *which side of the change* the person is. We are all at times resistors as well as instigators of change. We are all involved on both sides of the process of adjusting to change. Managers should keep this in mind before using labels such as resistors and accusing people of poor attitudes and lack of team spirit. Not surprisingly, *treating resistance* this way might serve only to intensify real resistance (Jick, 1993b).

The last quotation makes the point that resistance can be quite legitimate at times. If top management has failed to involve the organization in the earlier stages of the change process, managers and employees might resist because they are convinced that the 'solutions' imposed from the top are simply wrong. Moreover, the strength of resistance indicates the degree to which change has touched on something valuable to individuals and the organization. Discovering 'that valuable something' can be important (Jick, 1993b).

Some of the most important *reasons why individuals and organizations resist change* are as follows:

The first group to be considered is *people who have legitimate reasons for resisting the changes*. Rather than using the word resistance, terms such as legitimate concerns, reservations, and other points of view are more appropriate to describe this group. Legitimate concerns are likely to be present among those who have not been involved in diagnosing the situation and creating the vision. Those who created the vision might very well have overlooked something important. Mintzberg (1990) emphasizes that this is often a problem when strategy formulation is separated from strategy implementation:

According to Mintzberg (1990), sometimes resistors are right-minded people who do what they do to serve the organization despite its leadership. They may resist implementation because they know the intended strategies to be unfeasible - that the organization will not be capable of realizing them or, once realized, they will fail in an unsuitable external environment.

A second group of resistors are *people who fear the unknown*. Most people need a certain degree of stability or security, and change presents unknowns, which cause anxiety. While people might feel competent with their current responsibilities, they might be ensuring of how they would operate or manage in a different context. They might simply fear that they will not be able to develop the new skill and behavior that will be required of them. As Beckhard and Pritchard (1992) observed: change destroys the unknown and replaces it with the unknown, which someone thinks will be better. This type of resistance can be greatly reduced by being specific about the future state, specifying not only what will change, but also what will not change, and offer training and education to help employees acquire the needed new skills.

A third group includes *people who are stuck in the holding-on phase of the transition process*. One group of 'resistors' can be conceptualized as people who are stuck in the holding-on. Managers therefore need to work with the sense of loss. Resistance to change is likely to increase when managers ignore or fail to understand the psychological phases people go through in adapting successfully to change.

A fourth group resisting change might be labeled *face-savers*, because they think that *to go along with the change would be to admit that their previous decisions or beliefs were wrong*. Tichy (1983) termed is resistance due to sunk cost. Staw (1982) used another term: *escalation of commitment*. The author observed that people and organization sometimes escalate their commitment to a course of action even though the facts clearly indicate that the decision was wrong in the first place. For example, a manager or firm might be willing to virtually pour money and resources into a project to 'prove' that it can succeed, even though all information indicates that the project should be abandoned altogether. Staw observed that this 'escalation of commitment' reaffirms and justifies the original decision and therefore the wisdom and competence of the original decision maker. In order to counter this escalation of commitment, Staw suggested such organizational measures as managerial rotation, attention to expert advice, and reduced weighting of consistency as a criterion for promotion.

One group of resistors with less legitimate reasons can be termed political resistors. These are the *people who have a vested interest in the status quo*. They resist change because it threatens their power or because they stand to lose something of value if the new vision is implemented. The political resistors focus on their own best interest and not on the best interest of the organization (Kotter and Schlesinger, 1991). If the power of the individual or group who is resisting is significant, management might have to negotiate or provide some incentive to reach agreement.

Although the above examples cover some of the most common reasons for individuals and groups to resist change, there are certainly numerous other reasons as well. Kotter and Schlesinger (1991) argued that there are probably an endless number of reasons why people might resist change.

Another aspect to keep in mind is *that people are likely to react very differently to change*. While all human beings are somewhat limited in their ability to change, some people can be much more limited than others due to their personality (Watson, 1969). McKnight and Thompson (1990) grouped reactions to change into three categories: victims, survivors, and navigators. The victims feel confronted with a situation they cannot handle and, as a result, they panic. They complain, and become pessimistic. The survivors, on the other hand, believe that they are at the mercy of circumstances they cannot influence. They try to sense what is coming and adapt accordingly in order to survive. Finally, the navigators have the courage to face the pain of change and take a proactive approach. Navigators manage stress exceptionally well, they believe in their own ability to deal competently with the situation, and like to take the lead. Although changing personalities might be difficult, if not impossible, knowledge and training in 'navigator' behavior might be of some help.

The discussion above has attempted to give a more differentiated view of resistance to change. In a certain sense one could say that a *rethinking of resistance to change* is necessary. First of all, one could ask if resistance to change is only 'bad'. Beckhard and Pritchard (1992) observed that the resistors are often labeled the 'bad guys' and the energy often goes into straightening them out rather than dealing with resistance in a nonjudgmental manner. According to Beckhard and Pritchard, managers should realize that resistance represents energy. Rather than trying to get rid of the negative energy to smoothen things over, management's real challenge is to find ways to convert the negative into positive and productive energy. Similarly, Weisbord (1998) and Duck (quoted in Ramos, 1994) even saw resistance to change as something quite positive. Weisbord stressed that organizations should not become *sacred cows*. Organization should rather instill in their employees a *healthy dissatisfaction* with the state of affairs so that they are always looking for ways to do things better.

The discussion above has shown that *resistance is neither good nor bad*. Neither opposition to change nor acceptance thereof is an absolute virtue or even an organizational advantage. Kahn (1982) argued that organizations must have some resistance in their circuits; an organization that changes in response to every input for change would be *no organization at all*, for it would lack the day-to-day consistency of patterned behavior that is a defining characteristic of organization. On the other hand, an organization that refuses change under all circumstances is doomed.

After having arrived at a differentiated view of resistance to change, the next question is *how managers should go about dealing with resistance to change*. Schein (1988), building on the ideas of Lewin (1947), developed a conceptual framework for thinking about resistance termed *forced-field analysis*. The essence if this technique is to analyze the forces that are keeping a quasi-stationary equilibrium in its present state, and from this diagnosis determine which 'driving forces' and 'restraining forces' need to be changed in order to unfreeze and get the system on the move. Schein (1988) argues that it is generally better to remove restraining forces than to add driving forces; “in most change situations the more pressure we put on, the more counter-forces we generate, all of which means that the total tension in the system will *increase*”. This was confirmed in a recent survey of 398 change-management specialists. The survey noted the negative impact of top managers who tried to force changes on an unwilling organization (Covin and Kilmann, 1990). Scott-Morgan (1994: 50) noted that even under the exigencies of war, no one has ever been able to change what was really important to people through force. Instead, resistance goes underground.

Goldstein (1988), developed a third conceptual framework based on theories of autopoiesis (see also section 4.3.1) and *far-from-equilibrium systems*[8]. According to this author, in instances where change is perceived as a threat to a work group's identity, resistance to change can be interpreted as a type of organizational autopoiesis. As an autopoietic system the group or organization experiences the environment only as a series of perturbations that are registered, but that do not enter the organization's autonomous identity. This 'information-tight' character of an autopoietic living system means that resistance to change for such a system can be considered a method of ensuring survival (Goldstein, 1988). Since the autopoietic system's identity is based on a set of fixed assumptions about the environment and how it should respond to that environment, attempts to change will only stimulate the survival mechanism of the group to stay the same. From within the context of autopoiesis: 'change is unthinkable and resistance is unchangeable' (Golstein, 1988).

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[8] *Research on farm-from-equilibrium has appeared in such fields as synergetics, chaos theory and catastrphe theory. In contrast to equilibrium systems, wich try to dampen environmental fluctuations, farm-from-equilibrium systems may aplify and fluctuation to the extent that the fluctuation 'invades' and reorganizes the entire system (Golstein 1988)*

According to Goldstein, creating a far-from-equilibrium condition can change autopoietic systems. An organizational system in a far-from-equilibrium condition can respond to environmental fluctuations it had previously ignored. Eliciting change from within by means of a gradient exchange with the environment can generate this condition. The key is that the system mist be induced to generate more information about itself since information from the outside cannot enter the autopoietic system. Goldstein argues that a method termed 'difference questioning'[9] can be useful in this regard. First, differences can be emphasized by eliciting and comparing individual responses to questions instead of just relying on group averages, which have a much lower information content. Second, difference questioning can contrast the work group's original or 'real' purpose with its current autopoietic identity. Third, difference questioning can use the resistance itself as an approach entails that when a change poses a real threat to a work group's identity, resistance is not something that can be fought against, but rather something that must be worked with *from within*.

For people who resist change because they are struggling with a sense of loss, a starting point can be to *provide them with empathy and support*. In this case, resistance is based on certain feelings. According to Block (1988): "you cannot talk people out of how they are feeling. Feelings pass and change when they get expressed directly". In other words rationalizing will probably not help. Jick (1993b) emphasizes that employees need to be allowed to air their feelings, grievances and frustrations. 'Nonjudgmental listening' is therefore a key aspect of providing empathy and support (Jick 1993b). According to Jick, the dominant attitude of the nonjudgmental listener is respect for what the individual is experiencing. When people feel that those in charge of the change are genuinely interested in their feelings and perceptions, they are more likely to share their concerns and fears. This more open relationship not only provides useful information about the resistance, but also helps to establish the basis for joint problem solving (Cummings and Worley, 1993).

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[9] *The technique of 'difference-questioning' was development by the Milan School of Family Therapy in order to introduce information into system. The terapist asks questions that address a difference or define a relationship (for example, having each famiily member rate the mother's or father's anger when the sister comes home late). The 'difference' introduced into the family is the new information available to the famiily system about how each of its members 'perceptions compares with the other'. This kind of 'difference-questioning' begins to disrupt the normal equilibrium-seeking homeostasis of the family, in wich information about its processes is very low. As new information accumulates, the family con no longer continue to function (or dysfunction) the way it used to (Goldstein 1988).*

For individuals and groups who are resisting because of fear of the unknown, *communication, information, and education* can be effective methods of reducing resistance (Kotter and Schlesinger, 1991; Cummings and Worley, 1993). Lack of adequate information fuels rumors and gossip, and adds to the anxiety generally associated with change. Effective communication about what will change and will not change, information about the benefits of the future state, as well as education and training to acquire the skills needed for the future can therefore be important tools.

As already noted in section 4.4.2, one of the oldest and most effective ways of building commitment and reducing resistance to change is to *get key individuals and groups involved in the planning and implementation of change* to make them see it as their own, rather than something that has been imposed upon them (Coch and French, 1948; Fleishman, 1965; Kotter and Schlesinger, 1991). This was well illustrated by Kanter: "change is always a threat when it is done to me, but it is an opportunity when it is done by me. The ultimate key to creating pleasure in the hard work of change...{ }...is to give people the tools and the autonomy to make their own contributions to change".

According to Cummings and Worley (1993), participation has many other advantages. Participation can help to improve the quality of the changes since members are likely to provide information and ideas; participation allows members to identify pitfalls and barriers to implementation, their interests and needs are more likely to be accounted for in the changes, and finally, the act of participating can provide motivation. However, despite this evidence, a recent study by Nutt (1989) indicates that most managers prefer low-involvement tactics like persuasion and edict to implement strategic plans. Nutt (1989) found that in 93 percent of the implementation failures, tactics that appeared to be minimizing the strategic manager's involvement were applied.

Another important factor can be to *improve the organization's capability for change*. Central to this capability is to create a climate in which people are willing to take risks (Porras and Robertson, 1987; Jick, 1993b). Moore and Gergen (1990) provided a useful framework for thinking about risk-taking. At the individual level, the readiness to take risks, and decision-making skills that allow people to estimate the level of risk involved and assess their abilities to cope with unplanned events. At the organizational level, risk-taking depends on the degree to which the organization 'says' it values and wants employees to take risks, the ways in which risk-taking is rewarded or punished, support systems and, finally, the amount and type of resources available to the risk-taker. The lower the individual tendency toward risk-taking, the higher the perceived organizational supports must be for risk-taking behavior to occur (Moore and Gergen, 1990). Moore and Gergen emphasize that perception is the key; often organizational support for risk-taking do exist, but is not perceived. Based on this framework, managers can improve the perceived importance of risk-taking to the organization by saying clearly that this attitude will be valued, changing reward and support systems to encourage it and finally, providing resources for risk-taking.

4.5. Phase Three: Sustaining Momentum

The previous sections discussed the transition phase of the change process. This section discusses how the momentum of the organizational change process can be sustained so that the system does not revert to its pre-change condition.

4.5.1. Institutionalizing Change

An *institutionalized* act has been defined as “a behavior that persists over time, is performed by two or more individuals in response to a common stimulus and exists as a social fact” (Goodman, Bazerman, and Conlon, 1980). According to Cummings and Worley (1993), institutionalizing change involves 'reinforcing new behaviors through feedback, rewards and training'. Goodman and Dean (1982) observed that there are different degrees of institutionalization. Starting with knowledge of the desired behavior, the next step is performance of the behavior, then preference for it and finally, incorporation of the new behavior in norms and values. Jick (1993a) noted that to speak of *institutionalizing change* may be partially missing the point in today's environment of continuous change. Jick therefore prefers to use the term institutionalizing the *journey*.

This dissertation views institutionalizing change as an *alignment of the different organizational elements to the changes and to each other in order to reinforce new behaviors*. Institutionalizing change is not understood as a means of *locking in* the organization in its current state in order to prevent future changes to occur. In other words, what is meant is *institutionalizing the process of change*, and not a particular change in itself.

Lewin (1947), discussed the institutionalization of change using different terms such as 'freezing'; the use of multiple and consistent leverage points' (Nadler, 1981), aligning the organization (Beckhard and Pritchard, 1992), 'the many-bullets principle' (Nadler and Tushman, 1993), the dimensions of the organizational mobile (Duck, 1993) and finally, 'the unwritten rules of the game' (Scott-Morgan, 1994).

The institutionalization of change is closely linked to the concepts of *fit or congruence* According to Nadler (1981), this concept can be traced back to Homans, around 1950. Homans, in his pioneering work on social processes in organizations, highlighted the importance of the interaction and consistency among key elements of organizational behavior. Leavitt (1965) identified the four major components of the organization as being people, tasks, technology, and structure. Leavitt suggested that these components are interconnected and that organizational change strategies therefore should take all four components into account. Several researchers have since further developed and/or empirically validated the congruence concept (e.g., Lawrence and Lorsch, 1969; Khandwalla, 1973; Galbraith, 1977; Nadler and Tushman, 1980). At the core of the fit or congruence concept is the assumption that the interaction among organizational components is perhaps more critical than the characteristics of the components themselves, and that as systems, organizations fundamentally work better if the pieces fir together.

It has been observed in the literature that organizational congruence can be a double-edged sword. Galbraith and Nathanson (1982) argued that there is a trade-off between short-run fit and long-run fit: the short-term congruence between the organization's design variables may be so good that they cannot be disentangled and rearranged into a new configuration in order to meet an environmental challenge or to implement a new strategy (Galbraith and Nathanson, 1982). Similarly according to Tushman, Newman and Romanelli (1986), organizational structures and systems can become so interlinked that they only allow for compatible changes.

In the literature on organizational change there is widespread agreement that there comes a point in time in the change process when all the different parts of the organization need to be realigned with each other in order to reinforce the new behaviors that have emerged. If not, there is a high risk that the system will revert to its pre-change condition. All the models of top-down direction setting that were discussed in section 4.1 include this step. Likewise, Scott-Morgan (1994) found that a key cause of failure in the implementation of corporate change initiatives is lack of consistency between organizational motivators (rewards), enablers (power structure) and triggers (performance measures).

According to Beckhard and Pritchard (1992), there is probably no single action management can take that will affect credibility more than not making sure that the organization's strategies, policies, and pay, as well as more informal rewards and signals, are in conformity with each other.

Also recent quantitative studies have confirmed the importance of using multiple leverage points to shape behavior. A meta-analysis of 131 North American studies of organizational change, design, and work innovation found that a simultaneous change of technological, human resources, and structural elements produced the highest and strongest level of organizational improvement (Macy and Izumi, 1993). Similarly, a study of business process reengineering in 20 companies concluded that fundamentally changing the following six crucial organizational elements: roles and responsibilities, measurements and incentives, organizational structure, information technology, shared values and skills, was a key factor leading to success (Hall, 1993).

The next logical question is *which subsystems* of the organization are particularly important to bring in congruence with each other. A selection of the subsystems that were emphasized in the literature is discussed below. They are: the human resource system, management systems, roles and responsibilities, and organizational structure.

The *human resource system* was found to be the most emphasized subsystem in the literature with regard to the institutionalization of change. Hilb (1994) underscored the importance of aligning the human resource system to a holistic vision, one that meets the needs of all stakeholders, and to integrate the components of the human resource system with each other. According to Tichy (1983) and Hilb (1994), the human resource system can be thought of as having four key components. They are employee selection and placement, performance appraisal, rewards, and development and career planning. The following section attempts to render an overview on these four components of the human resource system within the framework of institutionalizing change. For a detailed discussion of the human resource system, see Hilb (1994).

According to Beer (1990a), an understanding of the types of people and skills needed for the organization to be effective, is something that is developed gradually during the change effort. In other words, *employee selection and placement* needs to be adapted to the emergent organization during the later stages of the change process. For example, Hammer and Champy (1993) argue that reengineering leads to more complex, multi-dimensional work, which requires highly skilled employees. One executive stated that *strategy follows people*. In other words, placing the correct people in appropriate organizational positions can be an important factor in promoting change. Hiring decisions can also send important signals into the organization about both the vision and the commitment of management to realize it.

Development and career planning can also play an important role in the change effort. Managing develop systems requires that sufficient attention is paid both to formal training programs and to on-the-job development programs. These training programs must be consistent with the future needs of the organization. For example, in a reengineered organization, the greater the number of skills or competencies each individual brings to a team and the richer that person's understanding of the relevant core process, the greater the problem solving-capacity of the team will be. According to Ostroff and Smith (1992), most people contribute more to customer satisfaction by understanding, even if at a moderate level, a large number of the tasks required to produce satisfaction than by being extraordinarily good at only a few.

The *career planning*, or whom gets ahead and how they get ahead can send important signals about the commitment of management to the vision. If the new organization includes fewer management levels, a new career system with greater emphasis on rotation between functions, as opposed to moving up within one function, might be needed. Similarly, Womack and Jones (1994) suggested that career paths in the lean enterprise must alternate between concentration on a specific value stream or process, and dedicated, intense knowledge building assignments within functions. In this career path, the individual's functional know-how will still be growing while the processes will get his or her undivided attention for extended periods.

According to Womack and Jones (1994), the concept of an alternating career path has nothing to do with matrix organizations, in which everyone has two bosses. In this new model, the process leader rates an individual's performance while the individual is dedicated to a process, but the function head rates performance while the individual is back in the function, and the process leader decide jointly where the individual should go next.

Finally, the *performance appraisal and compensation systems* need to be changed to reflect the new vision. Although these are often considered as two separate systems in the human resource literature (Hilb, 1994), they are mostly grouped together under the term reward system in the literature on organizational change[10]. This grouping is also adhered to here. Expectancy theories of motivation (Vroom, 1964; Lawler, 1976) suggest that people will tend to be motivated to behave in ways that they perceive as leading to valued outcomes. The implication is that both formal and informal rewards need to be identified and tied to the behavior that is implied by the vision. Both human resource management authors (Hilb, 1994), and authors in the field of organizational change (e.g., Beckhard and Harris, 1987; Nadler, 1981; Tichy and Ulrich, 1984) have emphasized the importance of adapting the reward system to the vision.

Beckhard and Pritchard (1992) observed that more executives see the necessity of *putting the company's money where the leaders' mouths are*. Kanter (1989) argued that "”sharing the profits with those who help produce them is one way to put reality behind the oft-stated corporate slogan that people are our most valued assets". Finally, recent surveys of organizational change efforts have confirmed the problems of incongruent reward systems and/or the importance of a reward system that support the necessary changes (Covin and Kilmann, 1990; Arthur D. Little, 1994). Smith (1993), argued that the new reward system need not be in place at the outset, but that if rewards remain

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[10] *In this broadest sense, the reward system also includes career development and informal rewards.*

unaligned for too long, *employees will revert to doing what they are paid for*. Despite all this evidence and good advice form academics, a common problem is still that many companies expect individuals to behave in certain ways while rewarding them for other conflicting behaviors (Kerr, 1975; Beckhard and Pritchard, 1992).

For example, business process redesign tends to lead to a 'horizontal organization' built around teams (Ostroff and Smith, 1992). For teams to be effective, their members must hold themselves mutually accountable for agreed purposes and goals. Horizontal organizations must therefore measure and reward team performance. The horizontal organization requires that rewards are built around team performance and individual skill development (Ostroff and Smith, 1992).

Also *management systems* need to be aligned with the vision and integrated with the other systems of the organization. According to Belasco and Stayer (1994), *information systems* can be a powerful lever in changing behavior. Fundamental organizational change is likely to alter the type of information that is needed at each level of the organization. For example, most existing information systems were designed to serve the needs of individual functions. The management of business process, on the other hand, requires cross-functional data collection, something these systems were not designed to do. Process reengineering can also lead to greatly increased information needs of front/line personnel. In the horizontal organization, process teams are empowered to implement the actions needed to improve performance. This means that information must be made available on a *just-in-time-to-perform basis rather than on a need-to-know basis* (Ostroff and Smith, 1992).

According to Beckhard and Pritchard (1992), the *strategic planning process* has been quoted as a powerful tool for helping the organization to learn from the past, change its mind-set, and develop a future focus. Finally, there is likely to be a need to adapt *financial management systems* to be managed closer to the source, and networks or on-line databases developed to make information available to several levels simultaneously. While *budgets* are currently driven vertically by functional requirements, horizontal organizations require that budgets and resource allocations are driven horizontally by process requirements.

Roles and responsibilities also need to be adapted. Goodman (1980) observed that organizational change leads to the development of new roles. The role of senior management might change, the allocation of decision-making responsibility might need to be changed, and the relationship between the line and staff roles redefined. For example, Hammer and Champy (1993) have argued that managers in the reengineered organization change from supervisors to coaches, and executives change from *scorekeepers to leaders*.

If reengineering leads to a 'horizontal organization', the roles and responsibilities of the function are likely to change dramatically. Womack and Jones (1994) have provided a useful perspective on how organizations might balance the process and functional perspectives. They argue that in Japan, where the process perspective is most strongly developed, the creation of new knowledge in the technical functions has languished. Most Japanese engineers spend practically all their careers on cross-functional teams developing new products or improving production processes. This means that they get better and better at applying what they already know while ideas for generating fundamentally new, innovate products are lacking (Womack and Jones, 1994). According to Womack and Jones (1994), functions in the lean, horizontal enterprise will therefore have two major roles. The first will be to serve as a school; systematically summarizing current knowledge, searching for new knowledge, and teaching it to their members who are working on value-creating process teams. The second role will be to develop guidelines, or 'best practices' for, say, purchasing or marketing, and to decide which companies should be used as long-term partners in the value stream.

Finally, the changes in roles and responsibilities need to be reflected in the *organizational structure*. The fact that structure follows strategy was first pointed out by Chandler (1962). Quinn and Kimberly (1984) pointed out that the structure should not only be matched to the strategy, but also to the environment and the internal culture. For example, reengineering business processes can lead to changes in the organization structure. Whereas the traditional functional organization is built around specific skills, the 'horizontal organization' is built around how the work is done. In the horizontal organization, permanent *process owners and process teams* are made responsible for the continuous improvement and performance results of core business processes. Finally, Womack and Jones (1994) have argued that companies must create a new *process* *management function* that instills a process perspective in everyone from the top to the bottom of the company. This function should define the rules for managing cross-functional teams, teach team leaders how apply these rules, and constantly search for better approaches.

4.5.2. Evaluating the Change Effort

Surprisingly little attention was devoted in the literature to the final evaluation of the change effort. On the other hand, the literature has highlighted continuous feedback and learning during the implementation process. However, this dissertation argues that an evaluation of mid-term goals, and the extent to which the final vision has been realized, are necessary in addition to the ongoing implementation learning. The framework suggested by Hilb (1994) could be a starting point for such an evaluation. Hilb (1994) argued that a holistic evaluation of the organization should be completed along four dimensions, namely, financial, social, market/customer and ecological/environmental.

Finally, Isabella (1993) observed that as individuals spend time with changes, they begin naturally to evaluate the rightness or wrongness of the changes for themselves and for the organization. According to this author, this is an opportunity for managers to influence the conclusions and lessons that are drawn by organizational members. To do this, managers must:

- Create events to evaluate the change.
- Communicate in very concrete terms what the event has meant overall.
- Admit failures and state new strategies to turn those around. (Isabella 1993)

Summarizing briefly, the result of the evaluation is likely to be the adaptation of goals and strategies, which lead to a new 'loop' in the never-ending spiral of corporate change.

5. Horizontal Process Redesign

The previous sub-chapter discussed top-down direction setting. It considered the role of leadership at all levels of the organization in providing an overall direction for the change effort. This section considers another powerful force for change: *horizontal process redesign*.

A *business process* was defined in this dissertation as 'a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer'. *Horizontal process redesign* was defined as 'the fundamental rethinking and reconfiguration of the business processes that define a company's competitive advantage in order to achieve significant improvements in quality, cost and speed'.

Horizontal process redesign is based on the theoretical foundation of *systems thinking* (see chapter one, section 4.1). Systems thinking provide an alternative to the traditional functional view of organizations. Systems thinking tells us that the connections between the parts are as important as the parts themselves and that the parts must be in balance to produce the desired results. Systems thinking strive to understand the interdependencies between the parts and to maximize their effectiveness. On the other hand, in the traditional functional organization, each function often sets its own goals independently from other functions. This can lead to a situation where every function is 'world class', but the company as a whole is still unable to meet the customer's needs (cf. Meyer 1993).

Horizontal process redesign and total quality management can both be understood as attempts to *operationalize* systems thinking by focusing on business processes. The quality expert Deming, for example, emphasized that a system can be thought of as a structure of interlinking processes that work for a common purpose: What is a system? It is a network of functions or activities (sub processes or stages) within an organization that work together for the aim of the organization...{ }... Management of a system therefore requires knowledge of the inter-relationships between all the components within the system and of everybody that works in it.

Both horizontal process redesign and total quality management view organizations as made up of key processes that produce a result for the customer. Whereas total quality management has been successful in improving the effectiveness of manufacturing processes, quality programs have often found it difficult to move upstream into 'white-collar' work (Meyer 1993). Business process redesign attempts to bring the benefits of process thinking to the whole organization.

Horizontal process redesign emphasizes the importance of redesigning a small number of core business processes that cross the traditional functional boundaries. The focus on cross-functional business processes is important in order to break down the traditional barriers between the functions that have led to sub optimization. Welch, General Electric's CEO, has described these functional barriers as "toll-gates". Any time individuals or products must cross a boundary, an economic, emotional and, time-toll is paid. Organizations that have too many barriers therefore have high "toll-gate" costs (Beatty and Ulrich, 1993). Reengineering tries to optimize the whole by removing these "toll-gates".

According to Scott-Morgan (1994), it has proven very useful to think in terms of key business processes that tend to stretch across business, simply because they do cross functions, or sites, or both. It is in the management of the interactions and tradeoffs that the biggest opportunities for improvement lie, now that most individual departments and functions have been streamlined and improved.

The General Electric Company provided a good illustration of the importance of managing the business processes. In a one-year study to find the 'secret of success' behind some of the world's most productive companies, the General Electric research team concluded that these companies depend on common traits. They managed processes rather than people, used process mapping and benchmarking to spot opportunities for improvement, emphasized continuous improvement, relied on customer satisfaction as the primary measure of performance, introduced a constant stream of new high-quality products designed for efficient manufacturing and treated their suppliers as partners (Tichy and Sherman, 1993a). All of the above-mentioned traits are closely linked to horizontal processes redesign and total quality management.

According to Neave (1990), the understanding of horizontal processes followed in this dissertation sees process reengineering as a key activity at *all three levels* of the organization: the top, the middle, and the bottom. However, in order to avoid suboptimization, one should start at the top by mapping out the high-level processes first.

5.1. Models of Horizontal Process Redesign

Numerous models of horizontal process redesign were identified in the literature. The purpose of this section is first to provide a review of the frameworks that were considered most important by this author, and second, to evaluate them collectively at the end. Two criteria were used to select models to be reviewed in detail: date of publication, and whether the author had published papers in 'serious' business journals like the Harvard Business Review or Sloan Management Review. The date of publication was used as an indicator of 'originality'. Most of the later books and papers were found to build heavily on the ideas of earlier authors.

5.1.1. Meyer

Meyer (1993) takes a holistic approach to reengineering in his book *Fast Cycle Time*. While the book focuses primarily on how to reengineer the product development process, the approach is also relevant for other processes. Meyer has also published an article in the Harvard Business Review on how to create measures for process-focused, multifunctional teams (Meyer 1994). Meyer's approach has four phases and several steps (Meyer, 1993).

The most important steps are as follows:

Phase one: *Problem recognition*

I. *Recognizing performance gaps*. It is impossible to consider fast cycle time implementation seriously before senior management believes there is a significant performance gap and either customer requirements or competitor's performance. If the gap is recognized and is sufficiently large for the company to pursue, the next step is to educate executives on what fast cycle time is and on what it takes to get there. Finally, the performance gap is measured using tools like competitor benchmarking, site visits, and by getting feedback from both customers and suppliers.

Phase two: *Strategy development*

II. *Strategic alignment*. The focus in this stage is to ensure that the firm's purpose, strategy, and structure are defined, and aligned to each other. The firm's leaders must be able to clearly articulate the value proposition of the firm. Fast cycle time must also be integrated with other initiatives already under way, particularly quality-related initiatives.

III. *Identify and select value delivery process*. The leadership group selects the critical value delivery processes that need to be redesigned. Focus is important, and one should only take on as many as the organization can do extremely well. Also, a structure is put in place with the responsibility and authority to manage the overall change effort.

Phase three: *Launch*

IV. *Designing and implementing multifunctional teams*. Multifunctional teams are permanent work structures that replace the current functional organization. Multifunctional teams become a forum for iterative learning, they create a customer-focused value delivery culture, and provide great flexibility for managing change. Multifunctional teams are responsible for product development and for running the business, whereas the traditional functions become centers of expertise, which provide technical support and educate team members.

V. *Fast cycle time process redesign*. A multifunctional team first creates a map of how the process works today. The process is then analyzed and time and activities that do not add value are removed. Then the team creates a new process architecture, which is detailed by building a ‘should’ map. Structures that reinforce the 'should' map requirements are then defined and implemented.

VI. *Implement process measurements*. The firm's performance measures must be shifted to monitor cycle time. Measures send a strong signal to employees regarding what management considers relevant, and they are therefore important to change behavior. Measurements should be kept to the critical few. For each value delivery process, the start and finish points for time measurements must be defined.

Phase four: *Ongoing change management*

VII. *Ongoing strategy and implementation monitoring*. Senior management cannot delegate fast cycle time on the way the business is managed. As the initial cycle time reductions are achieved, new obstacles will emerge that require different solutions. Adjustments will have to be made due to external business changes and internal tensions. As slack resources and buffers disappear, the total system interdependency increases. Problems become much more open, as does conflict. Senior management must lead in developing a tenacious attitude toward data and a compassion for the people involved.

5.1.2. The Boston Consulting Group

The Boston Consulting Group pioneered what is today called 'reengineering' under the term 'time-based competition'. As early as 1988, George Stalk, Jr., published in the Harvard Business Review a paper titled 'Time - The next source of competitive advantage' (Stalk, 1988). Since then, consultants of the Boston Consulting Group have published a book (Stalk and Hout, 1990) and numerous articles (e.g., Bower and Hout, 1988; Sirkin and Stalk, 1990; Blaxill and Hout, 1991; Stalk, Evans and Shulman, 1992; Stalk and Webber, 1993) related to the subject. The Boston Consulting Group's current approach to reengineering involves three phases and five key steps (cf., The Boston Consulting Group, 1994):

Phase one: *Set the course*

I. *Establish purpose, goals and rationale for change*. Senior managers take the lead by defining the scope, purpose and goals of reengineering. The unique customer value to be created by reengineering is defined, and the capabilities that need to be enhanced or acquired to win new business identified. The focus, intensity, and orchestration of the reengineering effort is determined, and a compelling rationale for change is developed and communicated.

Phase two: *Manage the transformation*

II. *Redesign strategic processes*. This step starts by launching the breakthrough reengineering teams. This involves making the team understand the purpose and goals, providing training, developing team spirit, and preparing a work plan. The team then evaluates the current process design and performance using flow charts and other techniques, assesses process enablers such as management and support processes, develops a detailed understanding of customer needs, and envisions a new process that creates customer value and beats competition. The team then provides a proposed process design and a preliminary action plan. Finally, quick hits are identified and implemented.

III. *Integrate, validate and build*. During this stage, reengineering projects are integrated with each other, and with other ongoing performance improvement projects. The implications of the new processes for people, management systems and organization structure are addressed. The new designs are validated with pilots, and the processes improved through several iterations. New metrics for measuring performance are defined and improvement tracked. Open discussion of where and why change must occur is vital during this stage.

IV. *Commit and deliver*. This is the phase where the new processes are 'turned on', and ownership is transferred to the line organization. Senior management must ask for the commitment of the line organization, and make sure business plans; budgets and performance targets reflect the new processes. Senior managers oversee that obstacles are eliminated and that investments in key process enablers are made. To make changes stick, management needs to reinforce new values and behavior.

Phase three: *Build Value and Advantage*

V. Build value and advantage. According to the Boston Consulting Group, what differentiates outstanding from average reengineering is what comes after commitment and roll-out. Successful companies reengineer the total supply chain and build customer partnerships around new value-added activities and services. Process management is integrated with business ownership. Support activities and systems that do not add value to the strategic processes are realigned or eliminated. Finally, a culture of continuous improvement and learning is promoted.

5.1.3. Hammer and Champy

Michael Hammer has credited for inventing the term *reengineering*. The term first appeared in a Harvard Business Review paper titled: 'Reengineering Work: Don't Automate, Obliterate' (Hammer, 1990). The book 'Reengineering the Corporation: A Manifesto for Business Revolution. (Hammer and Champy, 1993) has clearly been the best seller among reengineering books with nearly two million copies sold worldwide (Champy, 1995). Hammer is also a well known speaker on the subject of reengineering, and organizes reengineering seminars for managers. However, the above-mentioned paper and book do not provide a clear methodology on how to 'do' reengineering. The approach outlined below is therefore synthesized by this author based on both the above sources and materials from one of Hammer's seminars (cf., Hammer, 1993). The approach has four phases and eight steps:

Phase one: *Mobilization*

I. *Identifying and selecting business processes*. Companies start by creating an organizational process map, which describes how the work flows through the company. This high-level process map will typically have no more than ten major processes. The identified processes are prioritized based on three criteria: dysfunction, importance to customers, and feasibility.

II. *Establishing o reengineering structure*. The reengineering structure has four key roles: leader, steering committee, process owner, and reengineering team. The leader is a senior executive who authorizes the overall reengineering. The steering committee develops the overall reengineering strategy. The process owner is responsible for a specific process and the reengineering effort focused on it, and he/she gets help from a reengineering team to implement reengineering.

Phase two: *Diagnosis*

III. *Understanding the current process*. The next step of the reengineering team is to bound, scope, and understand the current process. This involves understanding the customer's requirements, understanding what and why (not how) of the current process, and identifying weaknesses in the existing design.

IV. *Setting targets for the new design*. A challenging target is set for the new process. This step might include using tools such as benchmarking[11].

Phase three: *Redesign*.

V. *Creating a breakthrough process design*. Using a “clean-slate” approach, the reengineering team creates a new process. Hammer and Champy mention three techniques than can help in designing the new process. First, to boldly apply the principles of reengineering. Second, to search out and destroy assumptions that underlie existing business processes and third, to look for opportunities for the creative application of technology.

VI. *Prototyping*. This step involves building a laboratory prototype of the new process, testing it, learning and iterating.

Phase four: *Transition*

VII. *Implementing the new process*. A transition strategy is formulated for how to migrate from the existing process to the new process. This involves implementing an initial field release, realizing initial benefits and then implementing the succeeding releases.

VIII. *Rollout and institutionalize*. Jobs and structures, management and measurement systems, and values and beliefs are adapted to the new business process.

5.1.4. McKinsey and Company

Consultants from McKinsey and Company's methodology for core process redesign has five steps:

I. *Identifying processes*. McKinsey's framework views a company as made up of three to four core processes. Process definitions should address major strategic directions and key problems in competitiveness. The processes should be defined at levels high enough to yield *breakthrough* improvements, yet not so high as to be unmanageable. Core processes should capture major interdependencies and possible redundancies in functions and systems. However, dependencies across core processes should be minimized. Finally, the approach emphasizes that the same processes might not be 'core' for every company in which they appear.

II. *Defining performance requirements*. Redesign efforts should flow from a company's strategic objectives, and each core process needs to address one or two objectives of competitive success. These objectives, or sources of competitive differentiation, must be defined in terms of 'performance requirements', which measure key operating parameters such as throughput time, output quality, service levels, new product success rates, or total cost. The approach emphasizes that it is also important to identify the gaps between current a required performance. Evaluating performance gaps between current and required performance might include talking with customers, getting feedback from suppliers, and benchmarking against leading-edge competitors and *best of the field* companies.

III. *Pinpointing problems*. In this step, a detailed diagnosis is conducted to pinpoint causes of performance gaps and to identify opportunities for change. This involves a detailed mapping of process and information flows, an analysis of existing

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[11] *Benchmarking has been defined as '...looking for the companieds that are doing something best and learning how they do it order to emulate them' (Hammer and Champy, 1983).*

information, and technical systems architecture, and an identification and prioritization of root causes.

IV. *Developing a vision*. This step has the dual objective of developing both a long-term redesign vision and a set of specific change initiatives. McKinsey emphasizes that this step is an iterative one. First, the company generates a comprehensive set of redesign options. Then it evaluates options. Finally, it selects a set of specific short and long-term initiatives that address all the key elements o work processes, information systems and organization design.

V. *Making it happen*. A detailed rollout and implementation plan must be developed to ensure that improvement opportunities are achieved through detailed planning, low risk testing and early wins to build momentum. Because of the magnitude of the change involved, refining the redesign using pilots and prototypes is generally important.

5.1.5. Comparison and Evaluation

The models explained above first attempt to point out the similarities and differences between the models and then to assess their strengths and weaknesses.

A main *similarity* between the five models is that all of them follow roughly the same basic sequence of steps. With few exceptions, the models start with identifying processes and selecting one for redesign. Specific goals are set for the reengineering effort and a reengineering team is assembled. The reengineering team diagnoses and develops an understanding of the current process and then designs the new process. Prototypes and/or pilots are used to test the new process, and learning is implemented. 'Early wins' are realized and the new process is rolled out. Finally, a permanent process management structure is put in place.

On the other hand, there are considerable differences in terms of where each model puts most emphasis. The models by the Boston Consulting Group (1994) and Meyer (1993) are more holistic than the other ones. They both underline the importance of clearly establishing the need for change, and also stress the significance of having a vision and a strategy for the overall business before embarking on reengineering. For them, resigning business processes is just one element in a larger context. On the other hand, the models by McKinsey and Co. Kaplan and Murdock (1991), Hammer and Champy (1993), and Davenport (1993) focus primarily on redesign business processes. The focus of these models is thus much narrower.

The *strength* of the above models is that there is considerable agreement on both the importance and execution of horizontal process redesign. All models agree on the basic sequence of steps. This indicates that the models are well tested and workable. One model was based on research (Davenport 1993), while the others were primarily based on top-down direction setting; these models are also relevant, understandable and actionable for managers.

The main *weakness* of the models is that they, with few exceptions, fail to adequately consider the two other powerful forces for change: top-down direction setting and bottom-up performance improvement. Some elements of top-down direction setting such as establishing the need for change, and creating an overall vision and strategy, have been integrated into the models by the Boston Consulting Group (1994) and Meyer (1993). However, none of the models emphasize the importance of bottom-up performance improvement.

Another weakness of the models is that they, with the exception of the Boston Consulting Group (1994), have lost the connection to the three basic phases of the change process (*initiating, managing the transition and sustaining momentum*). As has already been mentioned in section 4.1.6, this dissertation argues that a model of change can be made easier to understand and use for managers if there is a clear link to the three basic phases of the change process.

A third weakness of the models is that they, with the exception of the Boston Consulting Group (1994) and Meyer (1993), put little emphasis on what comes after the process redesign. This creates the impression that process reengineering is simply a program to execute, and then 'you are done'. However, this dissertation argues that horizontal process redesign is more than a program. Rather, it is a new way of managing the business by focusing on business processes. It is a never-ending journey.

In the following section, a framework for horizontal process redesign is developed which builds on the strengths of the above models while attempting to eliminate their weaknesses.

5.2. A Three Phase Model of Horizontal Process Redesign

The following framework groups the *horizontal process redesign* activities of the change effort into the three basic phases of the change effort: initiating change, managing the transition and sustaining momentum (see figure 9). This eliminates a key weakness of the models that were analyzed in the previous section by making the framework more understandable and user-friendly. A key premise of the framework is that horizontal process redesign can occur at multiple levels of the organization. It starts at the top, with a business process map that outlines the core processes and how they fit together. Each of these core processes is made up of several sub-processes. Second, horizontal process redesign is regarded as only one out of the three forces for change in the strategic change matrix. The other two important forces in the strategic change matrix are top-down direction setting and bottom-up performance improvement:

Horizontal Process-Redesign (within the Strategic Change Matrix)

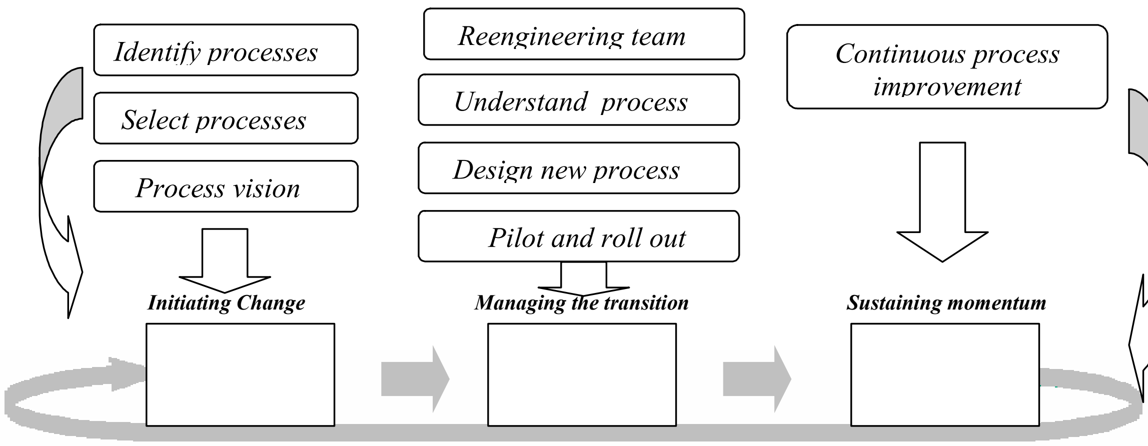

Figure 9: Horizontal Process Redesign (within the Strategic Change Matrix). Source: Orgland (1994).

5.3. Phase One: Initiating Change

According to the figure above, the first phase of horizontal process redesign starts with identifying and selecting one or more processes for redesign. Then a specific and measurable process vision is established.

5.3.1. Identification and Selection Processes

Processes can be distinguished according to their role or function in an organization, or according to their scope or breadth. When considering the *role of the processes*, one important type of processes is called operational (Davenport and Short, 1990) or value delivery process (Meyer 1993). Value delivery processes are those that deliver to the customer the value defined in the firm's mission and strategy (Meyer 1993). Examples of support processes include human resource development and financial administration. Reengineering normally focuses on value delivery processes since they deliver value to the external customer and are the key source of a firm's competitive advantage.

When considering the *scope or breadth of the business processes*, one can imagine a hierarchy starting with very broad processes, which are then divided into many smaller sub-processes. At the very top, a *process map* shows how the broad processes fit together (Hammer and Champy, 1993). These broad processes have been *called high-level processes* (Hammer and Champy, 1993), *interfunctional processes* (Davenport and Short, 1990), or *core processes* (Kaplan and Murdock, 1991). A company can be thought of as having anywhere between three and twenty core processes. For example, Kaplan and Murdock (1991) view a company as made up of three to four core processes. Hammer and Champy (1993) argue that hardly any company contains more than ten or so major processes.

Several authors have stressed the importance of defining *the processes broadly enough for reengineering* (Kaplan and Murdock, 1991; Farrel, 1994). The broader the process, the more likely it is to capture cross-functional interdependencies and to link improvement efforts to the strategic objectives of the firm. Since most companies today are organized according to functions, the functions themselves tend to be optimized. The biggest opportunities for improvement are therefore likely to be in the blank spaces' between the traditional functional boundaries. Focusing process redesign on narrowly defined processes can also lead to sub-optimization of the total system. According to Neave (1990), it is all too easy, and can be all too fatal, to plunge into sub-optimization of a part of the process or system, which looks relatively easy to handle. The performance of any component sub-process is to be evaluated in terms of its contribution to the aim of the system, not for its individual production or profit, nor for any other competitive measure.

According to (Hall 1993), the importance of focusing reengineering on broad processes was also confirmed by a detailed empirical analysis of twenty reengineering projects. The study found that the breadth of the process definition was one of two critical factors in translating short-term process improvements into long-term profits. Many reengineering projects were found to fail because the process *had been too narrowly defined to have any significant impact on business unit performance as a whole*.

Once a company's processes have been identified at a high level and the boundaries between those processes clarified, the next step is to *select one or more processes for redesign*. Four key selection criteria were identified in the literature. They are: strategic importance, importance to the customer, feasibility and dysfunction.These criteria are discussed briefly below.

Most authors emphasize that the most important selection criterion must be a *process's centrality to the execution of the firm's business strategy* (e.g., Kaplan and Murdock. 1991; The Boston Consulting Group, 1994). According to these authors, the primary goal of reengineering should be to create sustainable competitive advantage, resulting in long-term bottom-line improvements. Interestingly, this criteria was not emphasized by the best-selling authors Hammer and Champy (1993). This initial shortcoming was corrected in a recent report by Champy's consulting firm. The report stressed that senior managers must first ensure that the entire 'operating model' in which the reengineered business process will run remains competitive. If not, they are at risk of making that process, reengineered or not, obsolete (CSC index 1994).

The second most important selection criterion quoted in the literature was the process's *importance to the customer* (Hammer and Champy, 1993; The Boston Consulting

Group, 1994; CSC Index, 1994). According to these authors, reengineering should be geared towards creating new customer value that competitors can't match. Companies should ask themselves if reengineering a certain process would really make a big difference to both current and prospective customers.

A third selection criterion is *feasibility*. This entails considering the likelihood that a particular reengineering effort will succeed. In the early phases or reengineering effort, it is important that an organization can demonstrate some successes (Davenport, 1993). Some of the key factors that can influence feasibility are the commitment of the sponsor, how pressing the business need for improvement is, the cultural and political climate of the process, and whether the scope of the process is manageable or not (Hammer and Champy, 1993). The importance of defining the processes broadly enough was previously pointed out. The feasibility criterion suggests that processes can become too broad for reengineering to be able to succeed. Companies must therefore find an optimum point between scope and feasibility. A narrower process definition must be supplemented with a good understanding of that process's role in the total system in order to avoid sub-optimization (Deming 1990).

A fourth selection criterion is dysfunction. These are the 'broken processes' that a company's executives often already know are in trouble. Key symptoms of broken processes are data redundancy and re-keying, inventory buffers, a high ratio of checking and control to value adding, rework and iteration, and complexity, exceptions and special cases (Hammer and Champy, 1993). Whereas the symptoms of broken processes show up in one area, the root-cause of the problem is often further 'upstream' in another area.

Finally, one may ask what happens to processes that were identified, but not selected for reengineering. According to The Boston Consulting Group (1994), the practical reality is that not all processes need radical redesign. Top managers should therefore categorize processes by how much change is actually needed to achieve the stated purpose and goals. As part of the reengineering program, companies should also create a culture of constant improvement that can promote smaller improvements in other, less critical, processes.

5.3.2. Establishing the Process Vision

A *process vision* consists of specific, measurable *objectives* and *attributes* of the future process state (Davenport 1993). As mentioned in the previous section, strategy is the most important criterion for deciding which processes to reengineer. Process visions should therefore translate high-level strategies into measurable targets for process performance and understandable characteristics of process operations. *Strategy and process objectives must reinforce one another and echo similar themes*. Process visions set targets both for the designers of a process and for those who must subsequently manage it.

According to Davenport (1993), process objectives include the overall process goal, specific type of improvement desired, and numeric target for the innovation, as well as the time frame in which the objectives are to be accomplished Process attributes are the descriptive, non-quantitative adjuncts to process objectives that constitute a vision of the process operation in a future state.

Every process has three key outputs: how long the process takes to complete, whether it delivers the required quality, and how much it costs. A key question is therefore whether to focus the reengineering effort on *quality*, cost, or *time*. Total quality management demonstrated that improvements in *quality* lead to improved productivity and thus to lower costs per unit. 'There is a direct relationship between the two: as quality goes up, so does productivity' (Conway, quoted in Neave, 1990). Japanese managers applying kaizen, or continuous improvement, discovered that 'if you take care of the quality, the profits take care of themselves' (Imai, 1986). Companies implementing total quality management also found that quality is a much more motivating objective for employees than productivity. As illustrated by the former CEO of Florida Power and Light[12].

The Boston Consulting Group documented that compressing *time* in core processes automatically improves quality and reduces cost: “If we can provide the product that

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[12] *Florida Power and Light in the first company outside Japan ever to be awarded the prestigious Deming Price (Hudiburg, 1988) The Japanese Deming price is awarded to companies in recognition of outstandign sucesses in the practice of quality control.*

customers want and still compress time, we are also going to be solving cost and quality problems in our value-delivery process (Stalk and Hout, 1990).

Time reduction demands that high quality is built into the business processes from the start to avoid subsequent re-work. Faster cycles also lead to lower cost because production materials and information collect fewer overheads and do not accumulate as work-in process inventory (The Boston Consulting Group, 1994). According to Stalk and Hout, time is also a much more useful management tool than cost. *Cost is by and large a lagging indicator, a symptom, a set of control accounts after the fact* (Stalk and Hout, 1990). On the other hand, Stalk and Hout stress that time quality measures reinforce each other. The authors found that quality measures such as error rates and rework were directly connected to overall cycle time. In short, time could be used to locate quality problems (Stalk and Hout, 1990).

According to Meyer (1993), time provides a sharper focus, and is easier to communicate and understand than quality in upstream 'white-collar' processes. This is because the tangibility and exactness of the definition of quality drops dramatically when one moves from manufacturing to activities such as design and marketing. In contrast, cycle time measurements are more easily understood across organizational boundaries. The cycle time approach enables you to define measures for processes within and across functions much more easily than quality does.

Most authors agree that costs are the least powerful objective of the three. According to The Boston Consulting Group (1994), what differentiates outstanding from average reengineering is what follows the roll-out of the new process. They found that companies that aim solely for cost reduction often stop at this point. 'They are satisfied when process redesign cuts the fat' (The Boston Consulting Group, 1994). Two other authors agree that cost reduction efforts tend to have a short life span: 'strategic reengineering' should therefore seek new sources of revenue growth rather than focusing on cost reduction (Furey and Diorio, 1994).

The following question is *how the targets should be*. For example, should a company target for a 10 percent, 50 percent, or 100 percent reduction in cycle time? Reengineering authors emphasize that process objectives should be *stretch targets* of 50 percent improvement or more to stimulate fundamental process redesign (Stalk and Hout, 1990; Kaplan and Murdock, 1991; Meyer, 1993). According to Meyer (1993), a cycle time improvement goal of 25 percent can often be achieved just by working harder, focusing management attention, or providing additional resources. By raising the standard to 50 percent and up, people are forced to rethink the basic premises of their work process. Stalk and Hout (1990) argue that without radical goals *assumptions aren't challenged*. Larem (1993) makes the point that managers should ask for whatever is necessary, and not for what they think might be possible.

According to (Davenport 1993), specifying an goal of s 100 percent improvement ensures that a process will be examined with an eye put in radical change. The purpose of stretching targets is primarily behavioral - to let designers and implementers know that innovation and creativity are expected.

A recent survey of 621 companies implementing business process redesign confirmed that high ambition in reengineering is necessary to reap high rewards.

One of the key differences between companies that win and lose at reengineering is that winners aim high at the outset. Data strongly shows that North American companies targeting large percentage improvements in cycle time, costs, revenue, market share, productivity, quality, and other measures have a significantly better record in reaching or exceeding their goals. Companies with lower reengineering goals usually miss those lower goals (CSC Index, 1994).

Research from other fields has also confirmed the importance of high expectations. In the field of strategy, Hamel and Prahalad (1989) found that companies that have risen to global leadership over the past twenty years began with ambitions that were out of proportion to their resources and capabilities. In the area of organization development, Eden (1986) found strong empirical evidence of both *Pygmalion* and *Galatea* effects. The Pygmalion effect refers to the fact that supervisor expectations concerning the performance improvement increase by raising a subordinate's performance. The Galatea effect refers to performance improvement by raising a subordinate's self-expectations. Eden (1988) concluded that 'raising instructor expectations and raising trainee self-expectations boosted performance significantly and substantially'. According to

Woodman and Tolchinsky (1985), there is also considerable evidence for the operation of interpersonal self-fulfilling prophecies in the literatures of the healing professions, education, psychology and organizational behavior. This suggests that high expectations on the side of the reengineering team, can boost the performance of the reengineering effort.

5.4. Phase Two: Managing the Transition

The transition phase starts with assembling the reengineering team. The team then sets out to gain an understanding of the current process. Short-term opportunities for improvement are identified and turned into early wins. The team then designs the new process and tests it in a prototype and or pilot. Learning is implemented and the process is rolled-out.

5.4.1. Assembling the Reengineering Team

In section 4.4.3, the need to create special organizational structures or 'parallel organizations' to manage the overall change effort was pointed out. 'The use of *ad hoc* teams to implement change is well documented in the literature (Burns and Stalker, 1961; Lawrence and Lorsch, 1967; Zand, 1974; Beer 1990a). In horizontal process redesign, the most important such structure is the use of cross-functional reengineering teams. Other structures quoted in reengineering literature include senior management *steering committees* to develop and monitor the organization's overall reengineering strategy, and internal reengineering experts who develop reengineering techniques and tools (Hammer and Champy, 1993).

In a recent survey of 621 companies that had undertaken reengineering efforts, effective project management was quoted as the biggest success factor in reengineering. The *effective use of teams* was quoted as the most important factor in successful project management (CSC Index, 1994), Katzenbach and Smith (1993a) have provided a very useful definition of teams that will be used to structure the following discussion:

According to Katzenbach and Smith (1993a), a team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable.

Small number of people. According to Katzenbach and Smith (1993a), effective teams normally have less than ten members. Hammer and Champy's recommendation for reengineering teams is in line with this. They recommend that reengineering teams should have between five and ten members (Hammer and Champy, 1993). A related question is how much of their time people should spend on the reengineering team. The reengineering literature recommends that team members devote 100 percent of their time to the team. In practical terms, 60- 70 percent of the team member's time is considered acceptable (Hammer and Champy, 1993; 'The Boston Consulting Group, 1994).

Complementary skills. According to a recent report on reengineering, effective project management begins with packing the right people. “Team members must have the right skills, standing and stamina”. Other reengineering experts have expressed it similarly: “if you think the business may suffer if you appoint an individual to the team, that person belongs on the team”. Conversely, assigning average performers to a reengineering project has been quoted as a sure recipe for failure.

Katzenhacli and Smith (1993a) have identified three categories of skills that must be present on a team. They are technical or functional expertise, problem-solving and decision-making skills, and interpersonal skills. Hammer and Champy (1993) argue that having both outsiders and insiders on the team can provide the right mix of skills. Insiders provide knowledge and skills from the various functions involved in the process. They should also have high credibility with their co-workers. Davenport (1993) has also emphasized that “whenever possible, individuals who are likely to be affected by the process redesign should be included on the reengineering team”.

The role of the outsiders on the team is to provide objectivity and a different perspective: 'The outsider's job on the team is to make waves' (Hammer and Champy, 1993). According to the Boston Consulting Group (1994), consultants can play a unique role as outsiders on reengineering teams. They contribute external experience, challenge team members to think 'outside the box', help identify and remove obstacles at the senior management level, and inject insight, energy, and enthusiasm into the process. Finally, the role of the team leader is to give the vision a sense of life by continually articulating it and modeling the collaborative behavior necessary for the effective functioning of the team (Tomasko, 1993). The team leader should be 'first among equals' (Hammer and Champy, 1993). Team leaders must be experienced and strong (The Boston Consulting Group, 1994).

Common Purpose, performance goals and approach. According to Katzenbach and Smith (1993b), successful teams have the right combination of purpose and goal. A purpose or vision focuses member's aspirations on a common pursuit; it supplies both meaning and emotional energy. Specific performance goals help the team set priorities, track its progress, and hold itself accountable. Teams also need to develop a common approach; they need to agree on how they will work together to accomplish their purpose and goals (Kaizenbach and Smith, 1993a).

According to Katzenhach and Smith (1993a), mutual accountability is built around commitment and trust: By promising to hold ourselves accountable to the team's goals, we all earn the right to express our own views about all aspects of the team's effort and to have our views receive a fair and constructive hearing. By following through on such a promise, we preserve and extend the trust upon which any team must be built.

Two approaches to enhance the sense of mutual accountability were identified in the literature on reengineering: co-location of team members, and evaluating team members on team performance, rather than on individual performance. Several authors have quoted co-location of the team members in one place as an important success factor in reengineering (Stalk and Hout, 1990; Davenport, 1993). As noted by Meyer (1993): “if you want people to work closely together, seat them together”. Co-location has been credited for making communication almost instantaneous, and allowing problems to be solved quickly and effectively. According to Meyer (1993), research has demonstrated that communication effectiveness drops by one order of magnitude when people are located more than thirty meters from each other. Hammer and Champy emphasize that *team performance should be the most important measure of individual performance*. 'No incentive is quite so effective as the prospect of having to live with the results of one's work' (Hammer and Champy, 1993). Finally, the real test of any team is whether or not it has delivered extra performance benefits. 'A real team is more than just the sum of its parts' (Katzenbach and Smith, 1994).

5.4.2. Understanding the Current Process

Understanding the existing Process before attempting to design the new Process is viewed as very important by leading reengineering authors (e.g., Hammer and Champy, 1993). According to Davenport (1993), companies that have omitted this step in their reengineering efforts later regretted it. Davenport (1993) quotes four reasons why understanding the current process is important. First, documenting the current process helps team members develop a common understanding of the existing state. This facilitates communication later on. Second, in most complex organizations, there is no way to migrate to the new process without understanding the current one. Third, recognizing problems in the existing process can help ensure that they are not repeated in the new process. Fourth, an understanding of the current process provides a baseline measure with which the new process can be compared.

The best place for the reengineering team to begin to understand the process is at the customer end, the team needs to understand *whom the customer of the process is and what the requirements of that customer are*. Concentrating on satisfying the needs of the customer has been at the heart of the quality movement. Already back in 1950, Deming taught the Japanese that they needed to regard the consumer as the most important part of the production line (quoted in Neave, 1990). According to Imai (1986), defining the customer is a 'top management priority'. Stalk and Hout also argued that the essence of time-based competition is to develop superior insight into what customers value and to build the company around that insight.

According to Stalk and Hout (1990), the ultimate purpose of the time-based competitor is not maximizing speed and variety, but owning the customer. Speed and variety are just tools that allow one to do more for the customer, to solve his problems, to reduce his costs - in short, to help him compete and make money.

Developing a superior understanding of the customers' requirements is a challenging task since customers often have difficulty expressing their needs 'Customers often do not know what they want until they see what they can get' (Davenport, 1993). According to Hammer and Champy (1993) a reengineering team has to understand customers better than the customers understand themselves. This type of understanding means considering the customers' goals and problems, not just the mechanics of the process that links the two organizations together. Hammer and Champy suggest that some of the team members should move in and work with customers in their own environments

Once the team understands the customer's requirements, the next step is to *understand the current process itself.* According to Hammer and Champy (1993), the primary objective is to understand what and why, and not so much the how, of the process. Developing an understanding of the current process usually involves using techniques such a flow-charting. *A common pitfall is to go too much into detail during this step and mapping everything that moves, making hundreds of flow charts, increasing confusion, and obscuring key leverage points* (The Boston Consulting Group, 1994). Understanding the current process should consume a number of weeks, not months (Davenport, 1993). Once problems in the process are identified, the team should attempt to identify the underlying root causes (Kaplan and Murdock, 1991). For example, at Toyota workers are taught that asking the question why, five times, will dig out several causes, one of which is usually the root cause (Imai, 1986).

After the existing process has been understood, the team can measure the current performance of the process. Measurements require operational definitions. According to Deming, no requirement of industry is so much neglected as the use of operational definitions. Deming devotes a whole chapter to this topic in this book 'Out of the Crisis' (Deming, 1986). An operational definition is 'a definition which reasonable men {and women} can agree on and do business with' (Neave, 1990).

According to Imai (1986), operational definitions put precise meaning into a concept and exclude the possibility of different interpretations. ’There can be no improvement where there are no standards. The starting point in any improvement is to know exactly where one stands. There must be a precise standard of measurement for every.{ }... process'.

For example, in order to be able to measure the cycle time of a given process, the start and finish points of the process must be defined. There are no industry standards for this; each firm has to establish these end points by itself (Meyer, 1993). A measurement of the current process provides a baseline for the new process.

An important side-benefit of documenting the current process is that opportunities for short-term improvements can be spotted and realized. According to Neave (1990), it is often the case that the very exercise of constructing a flow-chart that shows what actually happens in a process, as opposed to what is supposed to happen, leads straight-away to some considerable improvements. Whereas the total reengineering effort might take several years to implement fully, these early wins offer a way to begin to deliver results (Davenport, 1993). The importance of tangible, short-term successes to maintain the momentum in a change process has been well documented in the organizational change literature (Peters, 1978; Beer and Waltun, 1987; Porras and Robertson, 1987; Cummings and Worley, 1993). Schaffer (1988) has even built a whole methodology for change around short-term successes. Also Katzenbach and Smith (1993a) stress that small wins are invaluable for building the team members' commitment and for overcoming the inevitable obstacles that get in the way of achieving the team's long-term purpose.

Finally, quality experts stress that any improvement of a process should start by stabilizing the current process, or in other words, bringing it into statistical control[13]. Identifying and eliminating special causes achieve this[14]. Only when the process is in statistical control can active efforts be made to improve the process by tackling common

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[13] *When a process displays a reasonabledegree of statistical control, the output of the process is predictable. The variation in the product well be esentiallythe same day after day: Bya recording regularly over time some measurements from the process and plotting them in a histogram, the measurements will form a statistical distribution with the shape of a bell (cf. Neave, 1990, Wheeler, 1993)*

[14] *Variation due to 'special causes' is outside of the process or the system. Accidents,mistakes, complaints, etc., con either be special causes, i. e. Unpredictable and outside of the system, or they can be a predictable part of the current process or system (Neave, 1990).*

causes[15] (Neave, 1990). This involves redesigning the process to improve its capability for performance. The majority of the reengineering literature fail to mention this important point (for an exception, see The Boston Consulting Group, 1994).

5.4.3. Design of the New Process

Once the current process is well understood, the next step is to design the new process. Davenport (1993) argues that the design activity is largely a matter of having a group of intelligent and creative people review the information collected in the earlier phases of the initiative and synthesize it into a new process. According to Hammer and Champy (1993), redesign is a creative process, which starts with a blank sheet of paper: 'it demands imagination, inductive thinking and a touch of craziness'. Hammer and Champy (1993) suggest three techniques that reengineering teams can use to stimulate their thinking: boldly applying one or more of the principles of reengineering, searching out and destroying assumptions, and looking for opportunities for the creative application of technology. Each of these will be discussed briefly:

Applying the principles of reengineering. According to Hammer and Champy (1993), reengineered processes have striking similarities even in different industries. Some of the recurring characteristics of reengineered processes mentioned by the authors are as follows: several jobs are combined into one, checks and controls are reduced, reconciliation is minimized by cutting back the number of external contact points of the process, a case manager provides a single point of contact to the customer and the advantages of centralization and decentralization are combined in the same process. The Boston Consulting Group (1994) provides a similar list of guidelines for redesigning the process. Willoch (1994) offers eleven *generic* process models, which can be used to generate new ideas.

Searching out and destroying assumptions. “Assumptions are deeply held beliefs that underlie and are built into almost every existing business process” (Hammer and Champy, 1993). Identifying these assumptions and determining what needs to be done to make then invalid, can provide new insight in the redesign.

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[15] *Variation due to 'common causes' is due to the way the process has been designed and built. Such*

Looking for opportunities for the creative application of technology. This is a preferred subject of many reengineering authors due to their background in information technology[16]'. Leading reengineering authors devote whole chapters of their books to the enabling role of information technology in business process redesign (Hammer and Champy, 1993; Davenport, 1993). Some of the new technologies mentioned in the literature that provide opportunities for process redesign are shared databases, expert systems, telecommunications networks, decision support tools, wireless data communication, and portable computers, automatic identification and cracking technology, and high performance computing (Davenport, 1993. Hammer and Champy, 1993).

According to Hammer and Champy (1993), applying information technology to business reengineering demands inductive thinking, “the ability to first recognize a powerful solution and then seek the problems it might solve, problems the company probably doesn't even know that it has”. The Boston Consulting Group (1994), on the other hand, points out that large investments in information technology do not necessarily improve productivity or create new competitive advantage. Rather, using information technology as a competitive weapon means understanding how and when to employ it:

> “...it is dangerous to begin reengineering with the assumption that information technology will provide the solution to a company's process problems: technology is an important tool in reengineering, but it is not the goal. The ultimate goal is the creation of customer value” ('The Boston Consulting Group, 1994: 53).

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variation can only be eliminated by redesigning the process (Neave, 1990)

[16] *Michael Hammer is a former computer science professor at the Massachusetts Institute Technology (Hammer and Champy, 1993). Thomas H. Davenport is a partner at Ernst and Young's Center for Information Technology and Strategy (Davenport, 1993)*

5.4.4. Pilot and Roll-out

Before attempting to roll-out the new process, reengineering literature recommends to test it via *prototypes and pilots*. Whereas a prototype can be considered the analog of a scientific experiment performed in a laboratory setting, a pilot is a small scale, but fully operational implementation of the process in a relatively small unit of the organization (Davenport 1993). In a recent study on the implementation of reengineering, conducting a comprehensive pilot of the new design was quoted as one of five keys to successful redesign (Hall 1993).

Prototypes and pilots should reflect two potentially conflicting objectives: first, to prove that the process design works, and second, to learn from mistakes (Davenport, 1993). In order to he able to prove that the process design works, the unit selected for the test should be the one most capable of achieving successful change. Pilots and prototypes also provide important opportunities for implementing learning as discussed in section 4.4.4. Pilots and prototypes can:

> "...reduce complexity and risk, provide field validation of the key elements of the reinvented processes, and allow the testing of alternative hypotheses ... { }... They provide valuable learning on the do's and don'ts of the implementation process" (The Boston Consulting Group, 1994).

The reengineered processes often include new information and communication technology. In a study on the implementation of new technology, Leonard-Barton (1988) concluded that *implementation is innovation*. A key requisite for continuous process improvement is that permanent process owners and process teams are made responsible for the continuous improvement and performance results of core business processes.

The primary driver and measure of performance for such core processes is customer satisfaction. Other performance objectives can include cycle time, work-in-process inventory, total process costs and on-time deliveries (Ostroff and Smith, 1992). However, other than referring to the need for permanent process owners and to the fact that continuous process improvement is necessary, reengineering literature does not provide much guidance with regard to what this actually means. On the other hand, literature on total quality management provides valuable insight into continuous improvement. For example, Imai makes a strong point for kaizen:

> "All systems are destined to deteriorate once they have been established ... { }... In other words, there must be a continuing effort for improvement to even maintain the status quo. When such effort is lacking, decline is inevitable. Therefore, even when an innovation makes a revolutionary standard of performance attainable, the new performance level will decline unless the new standard is constantly challenged and upgraded. Thus, whenever an innovation is achieved, it must be followed by a series of kaizen efforts to maintain and improve it" (Imai, 1986).

An important difference between the continuous improvement approach and traditional management is the type of measurements used. *Continuous improvement* relies mainly on process measures like time and quality, whereas traditional management relies mainly on results measures like costs and profits. Results measures indicate what has been achieved, but give little insight into how the results were achieved or, even more importantly, into what the organization should do differently to improve (Meyer, 1994). In other words, results measures can highlight problems, but provide little insight into what caused the problem. *The continuous improvement approach, on the other hand, treats results that do not meet expectations as symptoms of process errors*. The process measures will normally indicate where in the process the problem originated. Since these measures illuminate the real causes of problems earlier, they enable companies to reduce the time needed to detect and correct errors. (Meyer, 1993). Whereas results measures are 'downstream', at the end of the processes, process measures are upstream, at different places in the processes themselves.

The next question is *how to find the right process measures*. Meyer (1994) describes four steps to finding the right process measures. First, one must define what kind of factors, such as cost, quality and product performance, are critical to satisfying customers. Second, the cross-functional process is mapped, for example in a flowchart format, to identify the process used to deliver the results. Third, critical tasks and capabilities required to complete the process successfully are identified, and fourth, the measures that best track those tasks and capabilities are designed. Of note, a company that follows the approach to horizontal process redesign outlined in this dissertation will already have completed the first two steps mentioned by Meyer in the 'understanding the current process' step.

Once the right process measures have been identified, and sufficient data have been collected, continuous improvement *uses a number of total quality tools to analyze the data*. These include, among others, paretto charts, histograms, control charts, and cause and effect diagrams (Growth Opportunity Alliance of Greater Lawrence, 1985). Although giving a detailed description of these techniques is beyond the scope of this dissertation[17],one of the most important of these tools will be briefly presented below.

The *control chart* is an important tool for checking out the results, identifying the causes of abnormalities, and then working out ways for eliminating the causes (Imai, 1986). The control chart helps determine whether or not a process is in statistical control. By using statistically calculated upper and lower control limits, the control chart can give guidance as to whether variation in the process is due to special causes or common causes. According to Deming, there are two kinds of mistakes. The first mistake is interpreting common cause variation, i.e., due to a factor outside of the process itself. This is by far the most common mistake. When something undesirable happens (for example, an accident or a customer complaint), the automatic reaction is to respond to it in isolation, as one-off occurrence. The implication is that the system or process never does anything wrong. People 'firefight' the symptoms instead of studying and improving the process (Neave, 1990). The second kind of mistake is to interpret special cause variation as common cause variation, i.e., not taking action because the variation is considered to be normal.

5.5. Phase Three: Sustaining Momentum

As soon as the new process is implemented successfully, necessary a continuous process improvement is needed in order to take advantage of the reengineering process.

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[17] *For a more detailed description, see, for example, Neave 1990 and Wheeler 1993.*

5.5.1. Continuous Process Improvement

According to Hammer and Champy (1993), reengineering is a process that created a revolution in the global businesses. As a matter of fact, reengineering became very popular in a short period of time. At his point, some authors on business process redesign have recognized that reengineering must be followed by continuous process improvement for benefits to be sustained and further improved. For instance, Davenport (1993), argues that an organization that does not include continuous process improvement after the implementation of a process innovation, is likely to lose the dynamic and return to the old ways of manage the business. This last comment imply that permanent process owners as well as process teams are responsible for the continuous improvement and hence, of the achievement of the organizational goals.

Customer satisfaction is the primary driver and measure of performance for core processes. A key aspect of continuous improvement is the *plan-do-check-act cycle*. It has to do with the planning of a change or test aimed at improvement of the business process. Do refers as well to carrying out the change or test in a small scale. Another aspect is to analyze the results of the test in order to see if the desired improvement has been achieved. Finally, the cycle ends with the adoption of the change, its abandonment, or a new run through the whole cycle.

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6. Bottom-Up Performance Improvement

The previous section focused on horizontal process redesign. It discussed the importance of viewing the organization as a set of core processes that link suppliers to customers, and how to identify, understand, and redesign these processes in order to improve speed and quality. This section considers another powerful force for change: *bottom-up performance improvement*.

Bottom-up performance improvement is related to concepts such as participation and empowerment. *Participation* has been defined as 'greater involvement of workers under conditions of openness, trust and free exchange' (Elden, 1986). On the other hand, *empowerment* has been defined as a situation where 'the people who are closest to the product and the customer take the initiative without having to check with anyone' (Haas, 1991). Although the above definitions indicate that empowerment is a 'stronger' word than participation, they are mostly used interchangeably in the literature. This dissertation has chosen to use the term *bottom-up performance improvement*, because it emphasizes that empowerment must be viewed not as an end in itself, but as a path to improved performance.

One of the most consistent findings in the research on organizational change is that participation in planning and implementing change tends to reduce resistance, build ownership of the change, and thus motivate people to make the change work (Coch and French, 1948; Vroom, 1964; Fleishman, 1965; Nadler, 1981; Covin and Kilmann, 1990; Kotter and Schlesinger, 1991). Conversely, a lack of participation has often been quoted as a reason for failure (Covin and Kilmann, 1990; Larem, 1993; The Wyatt Company, 1993; Arthur D. Little, 1994). Bruss and Roos illustrate the point: “The secret to change management ...{ }... is for all employees to feel like masters of their fates rather than like bystanders. Capturing their commitment, through participation and involvement, is the single most important effort in the change process”.

However, it is all too easy to fall into the trap of viewing participation simply as a means to reduce resistance to change. The real merit of participation is that it can generate new ideas, make it possible for these ideas to be taken advantage of, connect people to the definition and solution of critical problems, increase the likelihood that people's capabilities are utilized, and improve organizational performance (Quinn and Kimberly, 1984). Kanter underlines this point: “'Participation is not simply a psychological device by which people become more committed to action. On the contrary, it is a powerful tool to tap expertise and capacity that are not used and to actually modify the operation of the organization so that tasks are done more effectively and problems are likelier to be reduced in the future”.

However, despite the above evidence, Kanter (1983) has argued that the mobilization of the grass-roots for change is not a common phenomenon. Many change programs are not designed from the start to empower the grass-roots of the organization People at lower levels often find themselves learning the CEO preaching about organizational change without seeing any changes actually happening around them, except that fellow employees are downsized and that there is more work than ever before. Even a 'visionary' leader like Jack Welch, the CEO of General Electric, realized after eight years of mandating fundamental change from the top that top-down direction setting had its limits (Tomasko, 1993, Tichy and Sherman, 1993a). As a result, General Electric launched Workout, a bottom-up approach designed to empower employees to eliminate low value added work.

6.1. Models of Bottom-Up Performance Improvement

Unlike top-down direction setting and horizontal process redesign, no *step-by-step* models were identified in the literature that describe the role of bottom-up performance improvement in fundamental organizational change. Rather, each of the models and methods that were identified tended to focus on only one small piece of bottom-up performance improvement. As far as this author is aware, the framework presented in the next section is therefore the first integrated, change-related model of bottom-up performance improvement to appear in the academic literature.

Several different bibliographies were reviewed in the search for models of bottom-up performance improvement. The literature on *organizational development* has a rich tradition of attempting to improve organizations from the bottom-up with methods such as T-groups, survey research feedback, action research, and quality of work life improvements (Cummings and Worley, 1993). However, while many of these approaches are useful in solving specific problems, none of them have the potential to fundamentally change complex organizations. The ‘step-by-step' approach outlined for example in the action research model shows how a behavioral consultant should conduct a project, and how bottom-up performance improvement can contribute to fundamental change (cf., Cummings and Worley, 1993). The only bottom-up approach originating from the organizational development movement that has been designed for fundamental change is the 'total system change' method (Weisbord, 1987a; Dannemiller and Jacobs, 1992). However, on its own, this model is also too limited to explain the role of bottom-up performance improvement in fundamental change. The related literature on *participation and empowerment* (e.g., Sashkin, 1984; Elden, 1986; Neumann, 1989; Sonnenberg, and Goldberg, 1992) is very general in nature and does not provide any models to describe the role of participation in a fundamental change process.

According to Kanter (1983) and Beer (1990a), the literature on *organizational change* includes models that are generally focused on top-down direction setting while referring to some elements of bottom-up performance improvement. Some relevant elements from this literature have been adopted in the framework. On the other hand, the literature on *continuous improvement and total quality management* (Ishikawa, 1985, Imai, 1986; Juran, 1989) provides some specific examples of how employees can actively participate in improving business performance. These include such tools as suggestion systems and quality improvement circles. Finally, the literature on *business process reengineering* (Davenport, 1993; Hammer and Champy, 1993) also refers to some bottom-up tools like benchmarking and problem-solving teams. These approaches have been integrated into the framework.

6.2. Phase Model of Bottom-Up Performance Improvement

This section presents a three phase model of bottom-up performance improvement. These steps or activities of the framework have been grouped into the three phases of the change process based on the literature. Although several of the activities have the potential to play an important role in more than one phase of the change process (total system change), they have been included in the phase of the change process where they appear to be the most useful.

Bottom-up performance improvement is only one out of the three forces for change in the *strategic change matrix*. The other two important forces in the strategic change matrix are top-down direction setting and horizontal process redesign.

Bottom-Up Performance Improvement (within the Strategic Change Matrix)

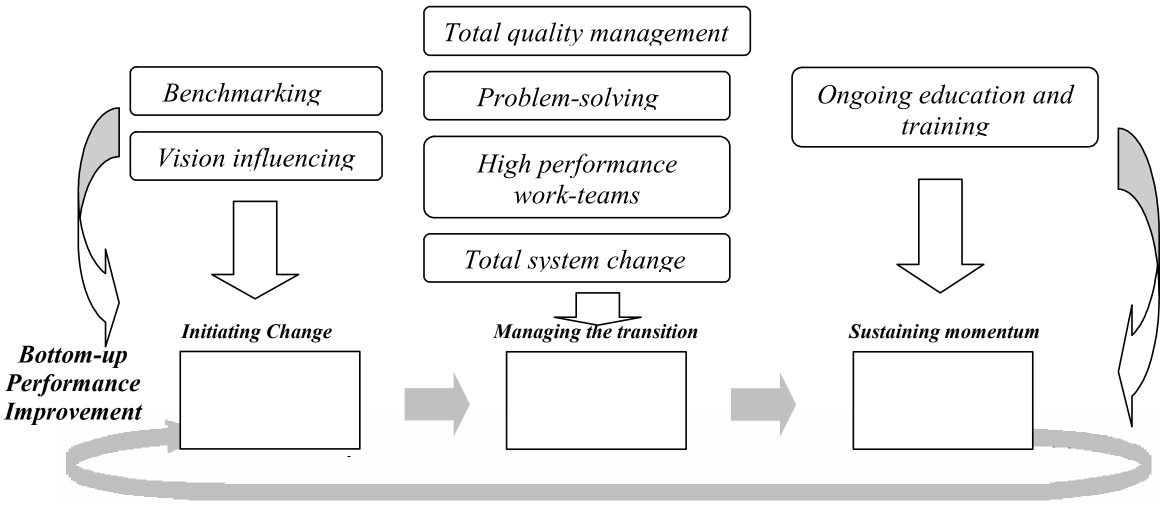


Figure 10:Bottom-up Performance Improvement (within the Strategic Change Matrix). Source: Orgland (1994).

6.3. Phase One: Initiating Change

According to the figure above, in the first phase of the change process two types of bottom-up performance improvement can play an important role: benchmarking and vision influencing.

6.3.1. Benchmarking

Bottom-up involvement in the diagnosis of the situation is important, because it is the lower levels of the organization that do the real work. These employees therefore understand the actual operations of their organizations better than most executives. Their involvement can help make sure that the problems and opportunities are correctly defined. This was clearly illustrated by one observer “'Many change programs fail because employees resist a top-down approach, believing that top management doesn't really understand the problem”.

One widely used method to involve the lower levels in the diagnosis is benchmarking. Benchmarking was developed in the quality movement, and is currently also used in business process reengineering (Davenport, 1993). Benchmarking has been defined as 'an ongoing investigation and learning experience that ensures that best industry practices are uncovered, analyzed, adopted, and implemented' (Garvin, 1993). Hammer and Champy (1993) describe benchmarking as 'looking for companies that are doing something best and learning how they do it in order to emulate them', Meyer (1993) stresses that benchmarking should he done by the people who have to produce the new result, and not by corporate staff groups.

Benchmarking competitors in the same industry is important in order to understand their capabilities, product and service design, and cost position. This provides insight into the gap between what customers need and what competitors can deliver (The Boston Consulting Group, 1994). Good competitive benchmarking should show both performance numbers and how they are achieved. In the areas where information cannot be found, it is important to assume that the competitor is doing something differently and force oneself to imagine how they might be doing it. Stalk and Hout (1990) therefore compare competitor benchmarking to *Sherlock Holmes solving a crime*.

However, most benchmarking in the context of process redesign searches for 'best practices' on the basis of the performance of a Particular Process without regard to the industry (Davenport, 1993). This provides insight into the gap between best in class performance targets and the company's own ability to hit them. An advantage of benchmarking companies in other industries is that they are more willing to share information. According to Richman and Koontz (1993), benchmarking should not only provide examples of best practices, but more importantly, also give insights into how they were implemented. This can help to clarify the capabilities required to reach the higher level of performance and to avoid some of the implementation barriers and pitfalls.

According to The Boston Consulting Group (1994), one important benefit of benchmarking is that it helps establish the need for change when people see hard numbers that measure their own performance against best-in-class performers, they begin to accept the need for change. Similarly, Beer (1990a) noted that seeing radically different and better ways of managing a business could be a real eye-opener. Spector (1993) observed that success models not only help to spread dissatisfaction with the status quo; they also provide a vision of the future and of what is possible. Schein (1988) termed this cognitive redefinition; change is caused by learning to see the world through the eyes of a role model. The following quotation illustrates the point:

> "The value of benchmarking doesn't lie in what can be copied, but rather in how much the experience energizes the group to reconsider their own goals, to dare to raise the bar of their own expectations, and to create their own new view of the world" (Richman and Koontz, 1993).

Despite its advantages, benchmarking also has its limits, particularly when companies simply try to copy examples without having studied the 'theory' behind them. For example, trying to copy a just-in-time production system when the underlying production processes are not in statistical control will lead to chaos. As illustrated by Deming:

> "An example teaches nothing unless it is studied with the aid of theory ...{ }... To copy without knowledge of theory a company that is doing well is to invite destruction".

A good illustration of this is the countless excursions to Japan by managers and researchers alike, and the number of times 'the Japanese secret' has been brought back. Deming once said that 'people go to Japan and learn nothing for they have no theory to team with' (quoted in Neave, 1990). Also Imai (1986) noted that 'most of the articles written on Japanese management have first promoted confusion'. Each scholar typically investigated his or her narrow field and came back with an exclusive explanation of the secret behind Japan's management success. A good example of trying to copy a narrow concept without understanding the larger context behind it is quality circles:

> "Quality circles became the rage of American business about ten years ago, and today their usage is virtually nil. Has Japan stopped using quality circles? Not at all. The issue is not that quality circles cannot work in the United States but that they cannot work unless they are a part of a more comprehensive culture change".

In order to avoid this pitfall, benchmarking requires breadth as well as depth. For example, in addition to benchmarking a particular process in the context of process redesign, one must also understand the total system within which the process is a part. Benchmarking done well can therefore require a lot of time and energy. For example, the 'best practices' study by General Electric was done by a team of ten members who spent a full year collecting on-site data at nine world-class companies (Tichy and Sherman, 1993a).

6.3.2. Vision Influencing

What this dissertation has termed *vision influencing* summarizes several ways in which the overall vision and goals of the change process can be influenced from the bottom-up. Most discussions about participation in the organizational change literature relate to participation in implementing change. However, it is important to differentiate between participation in discovering and elaborating the vision and participation in implementing it. For example, Jick (1993d) argues that even when employees are involved in every aspect of the implementation, many problems are still likely to occur if they were not involved in the planning of the changes. This situation is similar to the problems caused by separating thinking from action, and strategy formation from strategy implementation (Mintzberg, 1990; Mintzberg, 1994).

Several authors have therefore highlighted the benefits of *developing the vision in a more bottom-up, participative way by involving the main stakeholders* (Beer, 1990a; Manz, 1991; Stewart, 1993). Bottom-up involvement from the beginning of the change process has several benefits. Manz (1991) emphasizes that participation in developing and elaborating the vision not only helps employees to identify themselves with the vision, but that also reduces uncertainty by helping employees to know what to expect for and of themselves in the future state. Beer (1990a) found by means of statistical analysis that business units using a participative approach in developing a vision were more apt to have been successful in revitalization than units following a top-down approach. According to the authors, broad involvement builds commitment and ensures that the content of the vision meets the needs of all stakeholders.

According to Hambrick and Cannella (1989), early involvement in the development of strategic options also improves the quality of choices and helps to raise critical implementation issues upfront. This is consistent with research results where participative decision-making and increased problem-solving effectiveness were found to be strongly and positively associated (Manz, 1991).

According to Senge (1990b), when you add up the pieces of a hologram, something interesting happens. The image becomes more intense, more lifelike. When more people come to share a vision, the vision becomes more real in the sense of a mental reality that people can truly imagine achieving.

Sashkin (1984) mentioned three key advantages of participation in goal setting. First, when employees participate in goal setting, they tend to choose higher and more difficult goals than those that could have been imposed from the top-down. Second, even though participation in set goals is higher, employees accept them more readily because they themselves have selected them. Third, such participation builds a more favorable long-term organizational climate.

There are several ways in which employees can influence the vision and goals of change from the bottom-up. One such approach is that of the change influencer. According to Belgard (1990), visions can be put in place at any level in the management hierarchy. What they term 'change influences' are middle and lower level managers who have their own vision of the future state. These managers influence change by making their vision of a new and worthwhile future tangible. The change influencers not only seek out opportunities to articulate their vision, but also seek to get their message into the discussions and agendas of key managers who can drive the change. Some opportunities for this are created through careful planning and orchestration. Others are random change occurrences that are spotted by the change influencer and quickly acted upon. Belgard (1990) stresses that the task of influencing changes can be frustrating. Change influencers therefore need drive and commitment toward the change initiative they are proposing. According to the authors, the energy of the change influencers normally stems from a strong belief in a better future for the organization.

Kanter (1983) developed a model of organizational change that starts with an idea similar to that of the 'change influencer'. In Kanter's model, *departures from tradition*, or activities that deviate from organizational expectations first occur at the grass-roots levels. Entrepreneurs who seek to move beyond the job-as-given often drive these local experiments. These departures from tradition provide the organization with a foundation in experience that can be used to solve new problems or to replace existing methods with more productive ones. The next step in Kanter's model is a crisis or problem that cannot be solved by traditional means. This crisis or galvanizing event leads the organization to search for new solutions. At this point the departures from tradition, which are by then proven experiments, are pushed forward to the organization's leaders, who integrate them into the vision and strategy. From this point on, Kanter's model is similar to the models of top-down direction setting discussed in section 4.1.

The change influencers described by Belgrard (1990) and the corporate entrepreneurs described by Kanter (1983) are clearly 'self-starters' who take the initiative to influence the vision. Their level of influence suggests that they are lower and middle level managers rather than employees. However, there are also ways in which top management can encourage broad involvement and input to the vision from grass-root employees of the organization.

One method to get grass-roots involvement is to use *suggestion systems*. Suggestion systems are an integral part of continuous improvement in Japan. According to Imai (1986), many Japanese companies are noteworthy for the great number of suggestions from workers. For example, at Toyota, workers provide 1.5 million suggestions per year, 95 percent of which are put to practical use. Suggestions are also often incorporated into the overall strategy. The suggestion system also helps to convert 'normal workers' into ‘thinking workers' who are always looking for better ways to do their work, and as such develop a positive attitude to change (Imai, 1986). According to Imai (1986), fully implementing a suggestion system is a five- to ten-year project. In the beginning, management should make every effort to help workers provide suggestions, no matter how primitive. In the next stage, education and training is stressed so that employees can provide better suggestions. Only in the third stage, after employees are both interested and educated, should managers be concerned with the economic impact of the suggestions. Hudiburg (1991) argues that the single most important characteristic of a good suggestion program is a fast decision and fast response back to the employee. Hudiburg therefore recommends a 24/72 rule: the manager acknowledges the suggestion in 24 hours and the employee receives an answer concerning its disposition in 72 hours.

6.4. Phase Two: Managing the Transition

Section 6.3 discussed the role of bottom-up performance improvement in the first phase of the change process. This section reviews how bottom-up performance improvement can contribute to the second phase of the change process when the organization is in transition.

6.4.1. Total Quality Management

According to Hodge, Anthony and Gales (1996), total quality management should give the reader a sense of perspective on the all-encompassing nature of cultural change. During the decade of the 70's, many U.S. companies suffered market share declines at the hands of Japanese companies. One major reason for this was the perceived lack of quality of U.S. goods. U.S. automakers were hit especially hard. Not all the declines were suffered at the hands of Japanese competitors. Such companies as Sears, Montgomery Ward, and K-mart suffered setbacks from Wal-Mart, Target, and Nordstrom. The latter three retailers were seen as providing superior quality service. As managers and management scholars began to study the problems of these and similarly poor performing companies, it became apparent that poor quality was a significant problem.

Early approaches to the quality problem included several different techniques: quality circles, participative decision-making, and decentralized decision-making. Although some of these techniques produced some improvements in quality, the results were sometimes limited in both scope and duration. Critics pointed out that these approaches were often piecemeal and directed only at small segments of the organization, especially production. When investigators looked more closely at the Japanese experience with quality, they found that such companies as Toyota had the whole organization focused on quality.

According to Aguayo (1990) and Juran (1992), several models of Total Quality Management (TQM) have guided management practices, but the two perspectives that have received the most attention are those of Deming and Juran. According to Aguayo

(1990) and Juran (1992) and Dean (1994), the following are common elements of the Deming and Juran approaches to quality.

First, the organization must focus on the customer and create total customer satisfaction. Many companies have stated an emphasis on customer satisfaction, but what differs in the TOM approach is that the customer, not the company, defines satisfaction. This means that organizations must get to know their customers better. This means listening to customers and seeking customer input during the design phase of products or services. It is important to note that TQM gives broad meaning to the term customer. Customers may be inside the organization. At Chrysler, for example, production is a customer of engineering. Engineering must design cars that meet the needs of the production department.

Empowerment is a second feature of TOM. Empowerment incorporates the ideas of participative management, delegation, and the granting of real power to make and enforce decisions to lower-level employees. For example, production workers at Ford can stop the assembly line if they see problems. They do not need to get permission or authorization from a supervisor. The idea behind empowerment is to give responsibility to people who are involved with the work process. Third, TQM embodies the concept of team based management. Like the earlier Saturn example, TQM takes teamwork beyond mere cooperation. Work is organized around teams rather than individuals. Teams are empowered to make most decisions, and managers serve as coaches or facilitators rather than as bosses or supervisors. As we noted in describing Saturn's use of teams, a result of the team approach is team identification with outputs. A team assembling a whole car is more likely to identify with the output than an individual who attaches a few bolts. Team-based management goes beyond the performance of tasks. The organization must be committed to team-based organizing and team-based compensation.

Continuous improvement and measurement is the fourth key to TQM. Three processes make up continuous improvement and measurement: measurement and tracking of critical success factors, use of statistical process control, and benchmarking best practices. Error rates, output, waste, delays, customer satisfaction, manufacturing tolerances, and other important data must be measured and tracked on a consistent basis. Results of the measurement should be posted so that people know what is going on.

Sometimes posting these data is enough to motivate people to pay attention to quality. Monitoring can also provide keys to improving quality. Scientific sampling is conducted during the production process so that problems or errors can be detected and fixed during the process rather than waiting until the end. The point is that changes add quality that can and should be made on time.

Benchmarking involves identifying a competitor or another company in a similar industry that is doing something particularly well, studying that process, and then trying to emulate that process in your organization. For example, a university identified the registrar's office as a significant problem area. Students complained about the cost, delays, and errors in getting transcripts sent to employers or other schools. The registrar surveyed several universities to find registrars offices that were particularly good at serving student needs. A team from the university visited the exemplary registrars office to study the processes used and adapt them to their office. Surprisingly, even in the competitive business environment, companies are often willing to share best practices.

Finally, TQM entails open communication and feedback. Neither communication nor feedback is a new concept. Both have been discussed extensively under other organizational change headings. However, at the heart of TQM is the idea that people must feel free to broach sensitive subjects related to quality. Communication must be up, down, and across the organization, as must the commitment to TQM. Departments that are customers to other departments within the organization must feel free to communicate their needs and satisfaction. TQM represents a culture change for organizations adopting it because it involves changing the core values, norms, beliefs, and expectations in the organization. (It also frequently involves other forms of change: employee skills, work teams, and structure).

According to Aguayo (1990) and Juran (1992), the first aspect of the new norms, values, beliefs, and expectations involves the concept of quality itself. The organization must embrace a customer-defined idea of quality. Although the old saying: "the customer is always right" is time-honored, the notion of customer-defined quality takes that idea a few steps further. This devotion to quality means that the organization must do anything and everything it can to satisfy customers - even when those customers are members of the same organization. A second part of the new norms, values, beliefs, and expectations is directed at the notion of power in the organization. TQM upsets the typical expectation that power should be hierarchical. A third change, and one that is often difficult in the rugged individualism of American culture, is the team approach. The organization must shift its thinking from the glorification of individuals to the glorification of teams. Another shift in beliefs is the change to measuring ongoing processes to detect errors, waste, and problems rather than measuring after processes are completed. This often goes against such traditions as production cycles and model years. Finally, honest, open communication and feedback may violate past norms of discretion, professional deference, and hierarchy. For TQM to work, it must be emphasized that the process encompasses nearly all aspects of the organization. This is not a one-time, one-shot deal. It is a continuous and ongoing process.

6.4.2. Team Based Problem Solving

A problem solving team is a group of employees who have undergone training in problem-solving methods for the purpose of solving work-related problems (Juran, 1989). Problem- solving teams can be ad-hoc project teams or permanent teams like the Japanese-style quality circles. Problem-solving teams enable the people who are closest to the work to make a contribution by solving problems or capitalizing on opportunities in important areas. The fact that they are closest to the work, and therefore know the most about the problems, generally leads to higher quality solutions (Beer and Driscoll, 1977).

During the change process, ad-hoc problem-solving teams can be used to investigate specific issues. For example, in the context of process reengineering, problem-solving teams can tackle specific problems that are related to the redesign of a specific business process. This allows the reengineering team to focus on the business process itself, while the problem-solving team tackles the related issues. This not only expands the resources available to the reengineering team, but also allows a broader cross-section of the organization to get hands-on involvement in the change process. The extra resources and single-minded focus also allow the problem-solving team to get to the real roots of the problems rather than treating the symptoms. The result of such a temporary problem- solving project is typically a recommendation for change or improvement that is handed over to the management for implementation (Harrison and Pratt, 1993).

Problem-solving teams can also be of a more permanent character like the Japanese-style quality circles (Imai, 1986; Garvin, 1988; Juran, 1989). Whereas management normally appoints the ad-hoc problem-solving teams, quality circles are often voluntary. Also, whereas the ad-hoc project teams normally work on more difficult and complex cross-functional problems, the quality circles tend to work on less complex problems within functions (Juran, 1989). In executing their tasks, both the ad-hoc problem-solving teams and the permanent problem-solving teams normally rely on a seven step problem-solving process as follows:

1.	Reason for improvement: What seems to be the problem?
2.	Current situation: Where are we now?
3.	Analysis: What are the root causes of the problem?
4.	Countermeasures: What should we do to improve the situation?
5.	Results: What happened as a result of our actions?
6.	Standardization. How do we hold on the improvement?
7.	Future Plans: what is the next item we should work on to achieve further improvement in this area?

Table 4: Seven Statistical Problem Solving Tools. Source: Imai (1986); Juran (1989).

Further help to get to the root of the problems and to find the best solution is provided by the seven statistical problem-solving tools (see Table 3). These are all statistical and analytical tools for identifying and solving problems. These original seven tools have also been supplemented by the new seven tools (Imai, 1986; Juran, 1989). Whereas the original seven tools are designed for situations where sufficient hard data is available, the 'new seven' tools deal with situations where there is either a lack of data, or the available data is highly subjective. The 'new seven' tools are therefore used in many management situations like new product development, sales management, competitive analysis, etc.

As evidenced by the *rise and fall* of quality circles in the United States (Juran, 1989; Meyer, 1993), problem-solving teams must be viewed as just one element in a larger context like the strategic change matrix. While they can potentially make a valuable contribution in a larger context, they are not likely to succeed on their own. The seven problem solving tools are as follows:

1. *Paretto diagrams* are used to differentiate the significant elements of a problem from the less significant ones.
2. *Cause and effect diagrams* help to identify and analyze the root cause of a problem.
3. *Histograms* are used in statistical quality control to understand the distribution of data.
4. *Control charts* are used to track the variation of a process and to determine whether or not the process is in statistical control.
5. *Scatter diagrams* display relationships between sets of data.
6. *Graphs* display data in various forms like bar charts, pie charts, time series graphs, etc.
7. *Check* sheets are used to gather quality data through routine checking of the situation.

6.4.3. High Performance Work Teams

The problem-solving teams discussed in the previous section and the reengineering teams discussed in section 5.4.1, are both examples of teams that represent an overlay to the regular organization structure. With the exception of the quality circles, they are also temporary. On the other hand, the *high performance work teams* discussed here represent permanent structures that replace the previous organization structure.

High performance work teams can make an important contribution to fundamental change in complex organizations. Once established, the high performance work teams have a great capacity for managing change (Meyer, 1993). If high performance work teams have not been established yet, introducing them during the change effort effectively complements the redesign of core business processes (Meyer, 1993).

A high performance work team is best described by considering the high-performance team design checklist provided by Hanna (1988) in Table 4. Probably the single most important characteristic of high-performance teams is that they are self-sufficient. This is reflected in some of the other terms (Ostroff and Smith, 1992; Tomasko, 1993), semi-autonomous teams (Belasco and Stayer, 1994), and multifunctional teams

Checklist for Designing High-performance Work Teams

1.	*Will it be a real team?*	
	a).	Will the members be truly interdependent? Will they have to cooperate in order to Complete their task?
	b).	Will each memeber's role be defferentiated from other so it makes a unique contribution to the results?
	c).	Will there be enough physical proximity for team identy to be easily observable?
2.	*Will it be a work team?*	
	a).	Will the team have a whole task (inputs-transformations-outputs) so that a product or Service is produced?
3.	*Will the right resources be on the team?*	
	a).	Will the team members have the necesary knowledge and skills to complete the whole Task?
	b).	Will the team have enough people to do the task - but no more necesary?
4.	*Will in be a self-sufficient team?*	
	a).	Will the team have authority to determine who does what by when for daily activities?
	b).	Will the team get accurate and timely information about its results, operating standarts and New developsments that will affect daily priorities?
	c).	Will leaderships be shared among team members so that no one persons is the 'straw Boss'?

Table 5: Checklist for designing high-performance work teams. Source: Hanna (1988).

As already outlined in section 5.4.1, Kaizenbach and Smith (1993a) defined a team as a small number of people with complementary skills who are committed to a common purpose, performance goals and approach for which they hold themselves mutually accountable. Katzenbach and Smith (1993a) emphasize that high-performance learns have three additional characteristics that make them entirely self-sufficient. First, high performance teams have particularly intense personal commitments to one another and their mutual cause. The notion that 'if one of us fails, we all fail', pervades high-performance teams. Second, mutual concern for each other's personal growth enables high-performance teams to develop interchangeable skills and hence greater flexibility. Third, high-performance teams also share leadership within the team more than conventional teams do.

All the criteria outlined by Katzenbach and Smith (1993a) is either explicitly or implicitly included in the checklist put forward by Hanna (1988). The small number of people, complementary skills and shared leadership are all explicitly mentioned by Hanna (numbers 3b, 3a, and 4c in the checklist). The common purpose, goals and approach are reflected implicitly in the criterion of having responsibility for a whole task (number 2a). Mutual accountability is reflected in the criterion of interdependence (la). The intense commitment to one another is linked to the physical proximity (1c), finally, the requirement for interchangeable skills is implicitly reflected in necessary *knowledge and skills to complete the whole task* (2a).

The above comparison shows that the requirements for high-performance work teams proposed by Katzenbach and Smith (1993a) and Hanna (1988) is the importance of accurate and timely information about the team's results, operating standards, new developments, etc. Another author who stresses this point is Meyer. In his list of requirements for effective multifunctional product-development teams, Meyer (1993) emphasizes the importance of continually updating the multifunctional teams with relevant information. For example, some of the information that used to go to the traditional functions should be re-routed to the multifunctional teams. Overall, Meyer's (1993) requirements for multifunctional teams are also very much in line with those of Katzenbach and Smith (1993a) and Hanna (1988). This indicates that the high-performance team concept is well tested.

High-performance work teams are considered a key building-block of the 'horizontal organization' (Ostroff and Smith, 1992). These authors argue that teams regularly outperform individuals because they can direct a larger set of skills, perspectives, and activities against any problem-solving challenge. High-performance work teams can be used both in manufacturing and knowledge work.

In manufacturing, high-performance work teams can take the responsibility for running whole production lines. Teams also assume responsibility for related activities like hiring, training, performance evaluation, and establishing work rules (Ostroff and Smith, 1992, Tomasko, 1993; Belasco and Stayer, 1994). The use of high-performance teams in manufacturing not only reduces substantially management overhead costs in the plants, but also makes factory work more interesting and challenging. For example, the use of high performance teams at several General Mills plants resulted in the elimination of four layers of middle managers (Tomasko, 1993).

Meyer (1993) has argued that 'if there is a single visible element that distinguishes fast cycle time competitors from others, it is their extensive use of multifunctional teams'. There are several possibilities for using high-performance work teams in knowledge work. One of the most well known examples is to use these teams to speed up the development of new products (Tomasko, 1993. Meyer, 1993). According to Meyer (1993), there are three reasons why multifunctional teams are indispensable in new product development. First, they establish a forum for iterative learning including overlapping problem solving. This is vital in new product development, because it is by nature an iterative process that requires idea generation and testing from multiple perspectives over time. On the other hand, in the traditional functional organization, the individual disciplines work sequentially in relative isolation from each other. Second, they create a customer-focused value delivery culture instead of internally oriented, functional silos. Third, they provide greater flexibility for managing change than other organizational structures.

6.4.4. Total System Change

A new method for empowering employees to change their organization has emerged in recent years. It can best be described by the term total system change. Weisbord summarizes the theoretical developments that have led to this method as follows:

“In 1900 Taylor had experts solve problems for people - scientific management. In 1950 Lewin's descendants started everybody solving their own problems - participative management. About 1965 experts discovered systems by thinking and began improving whole systems for other people. Now we are teaming how to get everybody improving whole systems” (Weisbord, 1987a). (revisar la cita textual, no tiene mucho sentido)

A very similar approach to total system change was developed by Dannemiller and Jacobs (1992). These authors characterize the method as 'a revolution of common sense, bring together all the interested and affected parties to a change, provide them with the right information and with an opportunity to work together interactively -be they 5 or 500 - and they will create their collective future. Most important they will then be empowered to do the right things to make that future a reality. Nothing more than that has common sense' (Dannemiller and Jacobs, 1992).

Dannemiller and Jacobs (1992) describe an example of total system change at Ford where they took the top five organizational levels of a division (50,200 people) off-site for a five-day seminar to create an organization-wide quality circle. First, everyone's perception of the organization’s situation and of why change was needed was established; this resulted in a 'common data base'. The group found common ground by seeing the world through the eyes of each other. Then, everyone's perception of what the organization's future could be and what they preferred it to be created the vision. Third, the steps that everyone agreed upon were worth taking to begin the change process were decided. These steps resulted in a paradigm shift in which a critical mass of the system made a commitment to change.

A well known example of total system change is the workout approach at the General Electric Company (Tichy and Sherman, 1993a, Tomasko, 1993). Workout was launched as the CEO Jack Welch realized that there were limits to the kind of change that could be mandated from the top of the hierarchy. General Electric had downsized and delayed thousands of people, but the workload had not diminished. Many managers were still managing in the old way asking for the same number of reports as before. As a result, lower- and middle-level employees were over-worked and frustrated. Welch realized that the process of taking unproductive work out of the system had to come from the bottom-up. Workout was a way to get this process started. Workout had four major goals: first to build trust by making employees discover that they could speak out candidly without jeopardizing their careers. Second, to empower employees. Welch wanted to give employees more power in return for more responsibility. Third, to eliminate unnecessary work. Welch wanted higher productivity while at the same time providing some relief for GE's overstressed workers. Fourth, to provide a new paradigm of a 'boundaryless' organization.

The first stage of Workout consisted of sending 30-100 people from a particular business off-site for three days to define problems and develop concrete proposals. On the final day, the bosses would return. They then had to make instant, on-the-spot decisions about each proposal, right in front of everyone. About 80 percent of the proposals got immediate yes or no decisions while the remainder that needed more study had to get decided upon within one month. It turned out that many problems could be solved without too much effort. These *low-hanging fruits* quickly built momentum and trust. Subsequent versions of Workout have focused on bigger problems like redesigning business processes and converting all GE managers into professional change agents.

Wal-Mart is a company that has even adopted a 'total system' approach to managing the company. Every Saturday morning, Wal-Mart gathers several hundred executives, managers, and associates at the Company's headquarters in Bentonville, Arkansas, to talk about business (Walton with Huey, 1992). The weekly meeting enables everyone to know everything that is important about the company all of the time, it also allows decisions to be made and executed in real time, and it is a great forum for organizational learning: "the Saturday morning meeting is where we discuss and debate much of our philosophy and our management strategy: it is the focal point of all our communication efforts. It's where we share ideas we've picked up from various places".

As these examples have illustrated, total system change has several benefits. First, it leads to increased ownership and commitment to change efforts by all the interested and affected parties (Dannemiller and Jacobs, 1992). Total system change clearly has the potential of actively involving the grass-roots of the organization in making changes that affect their daily work. Second, it allows for real time implementation of the plans. In the words of Weisbord (1987a) 'looking together with an eye toward the future at how the whole system works is the shortest route to solving handfuls of problems al once'. Since all the relevant parties develop the solution together and come to the same conclusion at the same time, there is virtually no need to 'sell' the changes. As soon as the meeting is over, implementation can start (Dannemiller and Jacobs, 1992). In other words, total system change eliminates the distinction between thinking and acting, strategy formation and strategy implementation. Third, total system change leads to better alignment of the organization behind the vision and goals of the change effort. It gets 'all the arrows pointing in the same direction', resulting in ongoing decisions made by organization members that leverage the change (Dannemiller and Jacobs, 1992). In other words, total system change can simultaneously reduce the cycle time of change while at the same substantially increase its effectiveness.

6.5. Phase Three: Sustaining Momentum

The previous section discussed the role of bottom-up performance improvement in the transition phase of the change process. This section discusses why continuous improvement and change requires ongoing training to learn new skills and ongoing education to develop new knowledge.

6.5.1. Ongoing Education and Training

Recently, there has been a great deal of focus in the management literature on knowledge and learning. Drucker (1992; 1993) has announced the arrival of the knowledge society and the partial replacement of the traditional production factors like capital and labor with knowledge. Nonaka (1991) argued that in a continuously changing environment, the only source of lasting competitive advantage is knowledge. Von Krogh (1994) developed a new theory of organizational knowledge. Organizational learning has been a related area of focus (Senge, 1990a). Garvin (1993) argued that continuous improvement requires a commitment to learning. Meyer (1993) declared that “first cycle time organizations view speeding up learning as a strategic imperative”.

At the level of the individual employee, the recent wave of corporate restructuring and downsizing has replaced the traditional employment security by a new concept of employability security (Kanter, 1989). Employability security comes from the chance to accumulate human capital, skills, and reputation that can be invested in new employment opportunities as they arise. In a continuously changing environment, persons who have a high level of intellectual capital or expertise are likely to find new employment no matter what happens. In this environment, what makes a company attractive is its ability to provide learning opportunities that enhance the person's ability to keep employable (Kanter, 1989).

Ultimately, the ability of any company to fundamentally change itself is closely linked to the ability of its employees to change (Jick, 1993b). Process reengineering, total quality management and high-performance work teams all require tremendous investments in education and training. For example, lshikawa (1985) has noted that 'quality control begins with education and ends with education'. Hudiburg (1991) argued that companies who want to successfully install total quality management must be prepared to make a commitment to employees in education and training beyond anything they have ever done before. To illustrate the point, the training budget at Motorola, a company that won the Malcolm Baldrige Quality Award in 1988, went from $ 7 million a year to $ 120 million a year (Hudiburg, 1991).

The purpose of *training* is to increase skills and competence and teach employees *how to do a job in a particular way*. (Neave, 1990; Hammer and Champy, 1993). New skills are required to keep up with changes in materials, methods, product designs, machinery, techniques, etc. (Neave, 1990) For example, continuous improvement requires that employees who will execute it receive proper training in the new skills (Davenport, 1993).

Ostroff and Smith (1992) have argued that horizontal organizations must inform and train people on a just-in-time-to-perform basis, and on aneed-to-know basis, instead of having to wait for scheduled courses. Some innovative companies are offering just-in-time training. For example, at Motorola, employees can consult a telephone book sized compendium of training offerings and sign up for them at any time. A key benefit of this approach is that employees learn new skills when they need them. They are motivated to learn because they know that their performance depends on it (Ostroff and Smith, 1992). Hammer and Champy (1993) have argued that reengineering shifts the focus from training to education. Reengineered processes require that people exercise *judgment in order to do the right thing*. This, in turn, requires sufficient education. The authors therefore argue that continuing education over the lifetime of a job will become the norm in a reengineered company. Whereas training for a new skill is finite and ends when performance has reached a stable state, education is for growth, and never-ending (Neave, 1990). The purpose of education is to learn theory; to learn why we have to do what we need to do' (Deming, quoted in Neave, 1990). Education increases insight and understanding. Deming believed that advances in competitive position would have their roots in knowledge.

7. Knowledge Creation

There are recent theoretical insights from the cognitive sciences (Von Krogh and Roos, 1995), the sociology of knowledge, as well as pioneering work on knowledge creation (Nonaka, 1994). The following are some of the most relevant premises:

- From information-processing to Knowledge-creation, in our understanding, organizations innovate not by simply processing information, from the outside in, in order to solve existing problems and to adapt to a changing environment, as described in classical organization theory. Rather, they have to create new knowledge and information from the inside out, in order to redefine both problems and solutions and, in the process, to recreate their environment.
- According to Nonaka and Takeuchi (1995), corporate knowledge is about beliefs and intentions, relating to and relativized by a particular perspective. Knowledge is actualized and reproduced in order to address specific tasks or issues. Therefore, its adequacy cannot be judged by its truthfulness, which would imply an objective position to evaluate. It is rather a question of justified true believes, emphasizing the need for permanent implicit and explicit justification.
- According to Berger and Luckman (1996), justification for Corporate Knowledge Creation is even more crucial when knowledge is intended to become organizationally relevant beyond individual activities. While individuals in a local context can base their judgment on shared experiences or personal relationships as sources or trust and mutual understanding, the processes of corporate knowledge creation essentially rely on processes of justification beyond shared personal experiences and situated mutual understanding.

Given the importance of justification for knowledge creation processes, there is as yet a surprisingly limited understanding of the crucial but elusive process of justification. There are basically four propositions that intend to open the black box of justification by elaborating the following core propositions:

- *Proposition 1*. Knowledge creation as the development of corporate justified true beliefs cannot be analyzed adequately without considering the dynamic of justification, since these processes essentially decide whether new knowledge is rejected, returned or rather appropriated by the corporation.

- *Proposition 2*. Knowledge creation cannot be seen in isolation from the role dominant logic plays, as the appropriated and approved basic corporate understanding of the business. The dominant general management logic will essentially influence the processes of justification for rejecting, returning, or appropriating new knowledge.
- *Proposition 3*. Justification processes as well as the actualization and reproduction of this dominant logic have a decisive effect on the corporate knowledge base that evolves over time, since they regulate and discipline the organizational knowledge creation processes.
- *Proposition 4*. The best way to study knowledge creation empirically is to focus on mundane management discourses. Here is where the principles of justification will basically be maintained, reinvented or discarded.

By elaborating these propositions, it contributes to the theory of knowledge creation (Nonaka, 1994; Nonaka and Takeuchi, 1995), by explicitly analyzing the role of justification in its relation to dominant logic, it contributes to the theory of dominant logic in strategy (von Krogh and Roos, 1996), by elaborating the foundation of dominant logic in management discourses, finally, it contributes to the methodological task of how to analyze knowledge creation and strategy processes in action.

These propositions are equally crucial from a management perspective. Justification processes shape and form decision-making and resource-allocation processes, by tying together the creation of new ideas and opportunities with the concrete realization of some of these possibilities. Thereby, resource-allocation and investment decisions not only mean concrete business and product developments, but also investment in further knowledge creation and transfer activities themselves.

Open Issues on Knowledge Creation

According to Nonaka (1995), the initial organizational knowledge creation processes can be perceived as the sharing of tacit knowledge, since most of what we know is embodied and implicit. Tacit knowledge is then converted into explicit knowledge in the form of concepts, terms and narratives; a process of externalization. This process is crucial, since it structures and formalizes the otherwise tacit knowledge and prepares it for being communicated on a broader scale.

The explicit concept has to be communicated and explained to others who do not share the concrete experiences and intuitions. This necessitates turning the new concepts into justified true beliefs at the level of the corporation. Receiving support from the organization is the prerequisite for concrete resource-allocation and concrete investment decisions. At the same time, the local knowledge is approved to be transferred to other groups as well as to external partners of the corporation (Nonaka and Takeuchi, 1995).

The understanding of justification in knowledge creation faces an inherent paradox. On the one hand, newly-created knowledge has to be related to existing corporate knowledge in order to be acceptable and understandable, as well as to support redundancy; on the other hand, new knowledge is by its nature challenging to the existing standards through its novelty, opening up the potential field of relevant questions, tasks and arguments:

- Corporations have to develop and to maintain their existing knowledge base as the fundament for acquiring new knowledge as well as for developing successful corporate routines, for generating necessary redundancy (Nonaka and Tajeuchi, 1995), as well as for recognizing and structuring new information. This knowledge base includes frames and schemes, which are complex enough to create a rich picture of the actual corporate situation, while providing cognitive filters to reduce the external and internal complexity to a coherent worldview guiding major decision and corporate activities.
- However, according to Nonaka (1994), this same knowledge base is challenged by new information, alternative interpretations, and opposing knowledge, which cannot simply be integrated into the existing understanding of the world. Knowledge creation therefore always goes beyond the appropriated knowledge base, by further developing and extending the relevant interpretative frames and schemes. Any accepted understanding of the current situation is permanently challenged and potentially transformed towards new perspectives, provoking complex processes of

argumentation and justification, to be decided in favor of the existing or the newly emerging views.

Justification processes are therefore essential in structuring knowledge creation, since they contradict between relating knowledge to the existing and approved knowledge base in order to render it understandable, acceptable and efficient, while transcending this same knowledge in order to become and remain innovative. To understand justification in knowledge creation means understanding the mechanisms that decide whether new insights, concepts and ideas are rejected, returned for further elaboration, or finally appropriated as relevant.

Justification processes decide whether new knowledge is rejected definitively as not being relevant and interesting, since it does not contribute to the existing knowledge base in any substantial way; returned provisionally for further elaboration, in order to be re-evaluated in some later state; or finally appropriated as justified true belief and therefore integrated into the corporate knowledge base.

8. Conclusions and Implications

The purpose of this chapter was to develop a holistic and integrated framework in order to structure the process of fundamental change in complex organizations according to the *strategic change matrix*. This theoretical framework is based on a conscious review of the literature on strategic change, organizational change and business process reengineering. Furthermore, several sources in the fields of total quality management, participation and empowerment were taken into consideration.

The Strategic Change Matrix consists of three phases and three forces for change. The three phases are based on the finding that any process of change goes through three distinct psychological phases. According to the theoretical research, this dissertation has titled such phases: *initiating change, managing the transition, and sustaining momentum*. There are other essential aspects considered. These are the three forces for change, as a basis for a fundamental change in complex organizations. These forces are top-down direction setting, horizontal process redesign, and bottom-up performance improvement.

Several models of top-down-an direction-setting were identified that were based on systematic scholarly research. The literature on horizontal process redesign was also abundant, but much less research-based. With the exception of Davenport (1993), the models that were identified were not based on systematic research. Rather, consultants did most of the theory development in this area. The literature on bottom-up performance improvement, on the other hand, was founded on the basis of theorists and consultants' approaches.

According to my research, none of the models identified in the academic literature has considered the three forces for change, although recent research has concluded that integrated and holistic approaches to change produce the strongest organizational improvements (Egri and Frost, 1991; Macy and Izumi, 1993).

The models that were identified have also failed to consider the three phases of the change process. At this point a question may arise: What is the logical sequence of a change process? However, according to Beer (1990a) and Beckhard (1990), sequence is very important.

Another question still unanswered is the role of pace. Some authors have argued that all the sub-systems in the organization must change simultaneously (Tushman, 1986; Lawler, 1989; Beckhard and Pritchard, 1992). However, other authors have argued that change can be both too fast and too slow, and that there is an 'ideal' pace for each situation (Porter, 1975; Beer and Driscoll, 1977; Jick, 1993e).

Another question that could arise is: What is the role of consultants? Taking into consideration that both internal and external consultants can play a role in the change process, internal consultants include human resource professionals (Beer, 1990a), and external consultants include management consultants and individual experts. Management consultants have traditionally provided specific solutions, whereas the experts, many of whom have their roots in the organizational development movement, have focused on helping organizations to solve their own problems (Mirvis, 1988). With few exceptions (Beer, 1990a; Beckhard and Pritchard, 1992), very little has been written about the role of consultants in fundamental change. For example, Greiner and

Bhambri (1989) argued that the role of management consultants in strategic change has received surprisingly little attention.

Concluding, even though most of the elements of the strategic change matrix are based on research, the elements have never before been integrated into a holistic model. An integrated strategic change matrix should be regarded as a new model of change. The primary objective of the empirical study was therefore being explanatory to empirically test and explain the model. The empirical study should provide insight into the following questions related to the strategic change matrix: Can distinct phases be identified in the change process? Does sequence matter? What is the role of pace? Can the three forces for change: top-down direction setting, horizontal process redesign and bottom-up performance improvement be identified? What is their relative importance? What are the most important elements of each 'force for change'? What is the role of consultants?

The formal change process ends with refreezing behaviors and attitudes. The new behaviors and attitudes that have been brought about by the change strategy need to become part of the institutional fabric of the organization. Through official policies such as work rules, compensation systems, and training, and through unofficial means such as the culture (e.g., language, symbols, and stories), the organization must establish the new behaviors and attitudes as the ones that are desired and appropriate. An organization that has downsized and flattened its administrative hierarchy needs to establish new rules and standards for communication between layers of the organization. Perhaps the organization has set guidelines for lower-level employees to take new responsibilities for making decisions. The organization must create an internal environment to support these new behaviors. One company that failed to set new communication standards found out that lower-level employees, who were now supposedly empowered to make decisions, were still asking for permission because that was the way things used to work. An organization that wants to avoid major problems and subsequent radical change should continue to monitor change efforts long after they have been implemented and adjusted. Continuous monitoring may bring problems to the forefront before they are serious and require radical or extensive change.

Chapter Three
Empirical Study

1. Research Objective (Why?)

The theoretical framework developed before has yielded a structure in terms of how to develop, implement, and sustain a fundamental change in complex organizations such as the Central Bank organizations in South America, with the Central Bank of Colombia as a Pilot project.

Although the theoretical framework explained and integrated theories from different fields into the strategic change matrix developed by Orgland in 1994, it is important to see how this framework could be effectively applied regarding case studies of transnational corporations.

The primary objective of the empirical study will be explanatory. This means, to empirically test and support the strategic change explained in the Theoretical Framework. The empirical study should provide insight in terms of the following related questions:

- Why is change needed?
- What will be the benefits for them? (for whom?)
- What disadvantages or problems might grow up and how will they be handled?
- What behavior changes will be needed in programs, tasks, and activities?
- What are the forces for change?
- What is their importance?

2. Research Methodology (What?)

Research methodology answers the question: What can we do to answer the research objective and questions? This includes the methodologies that will be used as well as the limitations to the study.

2.1. Assessment of Needs

An assessment of needs is fundamental, its target being the establishment of the basis for organizational change and a development model for the Central Bank of Colombia. First, it will identify organizational needs and, subsequently, serve as a platform that not only meets those demands, but also defines consistent ways to link current to future organizational needs that constitute the foundation of organizational success in the long-term.

Current Training Program Background

The training program at the Central Bank of Colombia has been oriented to partially satisfy Divisional needs for some time. The current program responds in part to the top management requirements to improve knowledge, abilities, or attitudes of their employees; and in part for the training programs of the HR Division; but these current programs do not identify needs as a result of the performance of job functions, future organizational needs, and so forth.

Pilot Training Plan

Objective

The Pilot Training Plan (PTP) is targeted to the establishment of a development model for the Central Bank of Colombia. First, it will identify organizational needs and then serve as a platform to meet not only those needs, but also to define consistent ways to fix current to future organizational needs that provide the basis for organizational success in the long-term. In order to achieve this objective it is fundamentally a cooperative effort of the Division Work Unit (DWU) selected and HR professionals.

Development

To select the DWUa meeting was held between the Administrative Manager, the Human Resource Director, and the director of the selected DWU and the staff involved. The following was the agenda for the meeting:

A) Preliminary presentation of the Pilot Plan to the DWU Director and staff, by the HR Director.
B) How the necessary data would be gathered by the HR professionals? This implies active participation of the DWU employees.

Survey

a) Diagnostic Survey of Divisional Training Needs

This survey was addressed to the DWU Director with the following objectives:

- To identify what is the director's view on the Division's mission.
- To understand the challenges faced by the division in the short- and long-term.
- To detect current and future changes in terms of the Division's structure, functions, processes, standards, policies, etc.
- To identify behaviors of the work teams that would affect the development of activities.
- To identify styles of management and their influences in the development of activities.
- To detect results of the Division's performance and achievement of goals.
- To get to know training needs based on the items above.

b) Diagnostic Survey of the Employees' Training Needs

This survey was addressed to Heads of Sections and Coordinators with the following goals:

- To determine what are the requirements in terms of such things as technical skills, managerial abilities, and interpersonal communication skills that are required for the Division employees to perform properly in their positions. Those requirements must be established taking into consideration both the priorities and the level of mastery required.

c) Survey on the Perception of Current Divisional Services

- This survey was addressed to both employees and external clients of the Division, in order to investigate options about the services that are currently provided by different divisional sections.
- This survey provides facts to identify training needs of employees who currently have functions related to the item above.

d) Divisional Climate Survey

- This survey was addressed to all Division employees with the purpose of investigating their perceptions in terms of the workplace environment.

Results and Analysis of Surveys

The most important aspects after analyzing the information of the surveys are as follows:

a) Diagnostic Survey on Divisional Training Needs

The Division Manager considers that there is a high organizational commitment of his employees, and employees are engaged in maintaining a good organizational image both internally and externally. It is clear that the manager hopes to foster continuous learning among the employees and to rationalize his current workforce, keeping only those employees who identify with the organizational principles.

The Manager considers that the percentage efficiency level of his Division with respect to the expected is 60%. The reason for this is that even though during the past years many goals were achieved successfully, today there are deficiencies that have been affecting the workplace environment such as the comments from laid-off employees, and employees worrying about potential new restructuring.

Another aspect worth remarking is that due to the restructuring process in the organization and a redistribution of job functions, new processes have been implemented in the Division. At this point, the Division manager wants to develop time administration skills among Division members. Based on the survey, the difficulty in dealing with this fact is highly evident. According to the survey, *there are deficiencies in terms of opportunity to get results in performing job functions, a situation attributable to a lack of clarity and opportunity in communication and commitment to work*. There is not a sense of teamwork, and cooperation among employees is poor.

In terms of the managers, *there are deficiencies in the level of delegation, planning, project management, time management, and in increasing employee motivation*. There are situations where managers do not have the means to foster results-oriented behaviors among employees, and some managers have difficulties in delegating and supervising.

Finally, with respect to the functions that are open to the public, the perception is that there are deficiencies in terms of interpersonal communication. Most of the aspects and problems mentioned above were also identified by the other surveys on employees' training needs and on the Division climate survey that are explained below.

b) Diagnostic Survey of Employees' Training Needs

After the interviews and surveys were carried out, two HR professionals tabulated the information. I then received and analyzed the results that will illustrate the technical, managerial and interpersonal needs of employees in the Division. Through the survey, *it has been possible to identify priorities of job functions and levels of expertise required for each employee*, with respect to the current situation.

Fifty-eight themes were identified in which technical training should be conducted in areas such as computer skills (i.e. " Sebra" software, Windows NT, Office package, machine # 3200 management, SWIFT system, Oracle - SQL. Reuters and Telerate, Swift Alliance, technical statistic packages, etc). Moreover, there were 10 other themes identified in the managerial and interpersonal areas such as *leadership, HR administration, planning, conflict management, interpersonal communication, team building, work motivation, initiative and creativity, and decision-making*.

c) Survey on the Perception of Current Divisional Services

I analyzed the results separatedly for both external customers and employees of the Division, considering the following aspects:

External customers: The work units such as Treasury, Cultural Area, Monetary Exchange, Information Systems and International Portfolio were evaluated in terms of four variables (readiness, opportunity, effectiveness, personability). Most of the external customers think that the current external service is reasonable. Of 102 opinions, 27 persons qualify the service as excellent, 19 as good, 52 as reasonable, and 4 as poor. The results of the survey indicate that the external service is not appropriate, and it would be necessary to formulate and implement a training program in this aspect. Hence, regardless of the results, it would be convenient to develop action plans that allows for improving the quality of the external service.

Division’s employees: Employees of the Division rendered their opinions about the service that they receive in the Division. In general, the 47% rate the service as excellent. However, 53% rate service as just reasonable or poor. Furthermore, over 30% of the employees stated that:

a) They are satisfied with the current service.
b) They find positive attitudes among the different work units.
c) They think their needs are given good attention,

On the other hand,

- Readiness was rated as excellent by 40% of the employees, and good by 11%.
- Opportunity was rated as excellent by 38% of employees, and reasonable by 36%.
- Effectiveness was rated as excellent by 52%, and as reasonable by 41%.

The variability of the survey opinions indicates the need to improve the service of the different work units in order to attain an optimal level of opportunity, readiness, effectiveness, and customer service. This is supported with the diagnosis of employees' training needs made with respect to both managerial, technical, and interpersonal themes. It would be necessary to analyze the causes of those opinions in terms of training needs for customer service and interpersonal communication.

The following are suggestions to improve the service according to the survey:

1. Organization of seminars on inter-personal relations.
2. To foster integration activities.
3. To create a heightened awareness about customer service.
4. To foster respect, attention, and amiability with customers.
5. To ensure promptness and effectiveness.

d) Survey on Division's Climate

This survey was applied to all the employees (both managers and subordinates) of the Division in order to know the current situation of six variables. The variables taken into consideration were objectives, cooperation, *leadership, decision-making, interpersonal communications*, motivation, and control. The analysis is focused on the way each variable is perceived by the diverse work units, and at the same time the way those perceptions have a positive or negative impact on the organization. The following is the analysis of each variable:

Objectives: This variable tries to measure the employees' knowledge of the organization's mission and current objectives. *This variable facilitates the identification between individual objectives and organizational objectives*.

At the managerial level, the results were positive. However, *at the other levels there were problems perceived in the way information about objectives, policies, and practices are transmitted to employees*. There is a lack of information and clarity about how employees are contributing to the division's objectives.

Cooperation: This variable is intended for measuring the level of association between employees performing different job functions and responsibilities, and to what extent they cooperate in the achievement of a specific goal. For instance, at the managerial level the results were positive. However, *at the other levels the trend is to work individually*. Usually, employees do not look for help or assistance from other co-workers. There is not a sense of trust between employees, hence, *it is recommendable to* *formulate and implement actions that focus on teamwork and interpersonal communication*.

Leadership: *The idea with this variable was to measure how employees holding managerial positions use their capabilities and personal characteristics to facilitate the fulfillment of Divisional objectives*. There is a perception that managers do not have equitable employee-management, i.e., a sense of objectivity. Moreover, *employees do not feel a high level of commitment to fulfill assignments requested from management*. The perception is that there is not a motivating environment between managers and subordinates that facilitates the achievement of goals. The perception is that managers impose, rather than discuss and agree to, assignments. Employees view a lack of participatory managerial styles. Subordinates do not trust their managers to deal with a variety of public or private issues on a personal level.

It would be important to formulate and implement training programs that allow for improving interpersonal relationships, communication, and supervision. One must also take into account issues on motivation, which are critical to formulating training programs in leadership and managerial skills.

Decision-making: This measures the level of participation of employees in the decision-making process in terms of their job functions. *This factor is important because it could be a motivator and generator of employees' work commitment with the Division and hence with the organizational change process*. The results at this point are quite similar to the variable above. There is a low level of employees' participation in the decision-making process. *There is little autonomy for employees, and the trend is to centralize even those decisions that do not have an organizational impact*. The feeling is that employees are not taken into consideration with respect to Divisional or organizational decisions that would affect work conditions. At this point managers should be participating in training programs that are focused on employee empowerment

Interpersonal Relations: This measures the level of informal interaction among employees (such as friendship), and how the organization fosters cultural activities, sports, and Divisional employees' integration. There is a lack of cultural and integration activities. A training program focused on interpersonal relationships should be developed, taking into consideration the employees' personal concerns.

Motivation: This is a key factor that influences efficient behavior among employees. *Employees express high levels of satisfaction and pride in the organization and the kind of work they perform*. However, there is a general feeling of *dissatisfaction in terms of the recognition* of good performance, and at the same time the few possibilities of employees to know managers' opinions about their performance.

Regarding the results of the survey explained above, I would like to suggest the formulation and implementation of a training program that would be the responsibility of the HR and the International Operations Division. The following should be the main aspects to be considered:

a) To attend and to develop training programs based on the established priority considering the Organizational Change proposed in this dissertation. This means those in which a training need was qualified as "A" (essential) should be attended to immediately, and so forth.
b) To determine the themes on which the training program would be focused and to see that it meets Divisional needs.
c) To determine whether the identified needs would be satisfied with the following types of programs:

    - Self-training: the training that an employee acquires on his or her own with respect to a specific job function.
    - Internal training: This would be organized by the Bank and could be conducted by an internal or external instructor.
    - External training: This would be conducted by a specialized organization.

d) To present and discuss with the Top Management of the Central Bank of Colombia the results of the surveys and the suggested training needs.
e) To emphasize to the Division Managers and staff members the responsibility they must assume to attend training activities that are going to be arranged based on the results of this assessment of needs.

f) To advise the Divisions about the development of the different programs that will satisfy both employees' and Divisional needs.
g) To develop instructional skills for potential internal instructors through the appropriate training programs.
h) To organize, coordinate, and develop training programs through the designation of instructors, programs, schedules, and logistical aspects in which the HR professionals would guide and advise periodically.
i) To make research about the specialized organizations where the Bank could find expert instructorsto teach in the different training programs.

2.2. Multiple Regression Analysis

This doctoral document examines whether the current performance appraisal system of the Central Bank of Colombia is achieving its goal to reward employees through wage increments. For many reasons, a performance appraisal system has been considered as an excellent way to reward employees through wage increments, and is thought to *improve productivity*. Indeed, the development of a performance appraisal system is viewed as one of the major factors that would support the Central Bank of Colombia's Future State (see introductory section 5.5) according to this dissertation in keeping with the Human Resources Management Perspective argued by Mr. Hilb in 1997, as well as a consistent way to improve its productivity. In turn, the Central Bank is responsible for ensuring the growth and the economic and social development of the country.

In 1990, the government gave the Central Bank its present level of autonomy, and at the same time, defined its functions. Since then the Central Bank has been involved in several restructurings (downsizing, layoffs, performance appraisal, and so forth) for it to become more efficient. The Bank has been considering performance appraisal the backbone of their strategy to motivate employees by offering higher wages for good performance, and by lying off those who perform poorly. For the last four years, the organization has been increasingly concerned with employees motivation. However, wages are increasingly being determined by factors other than performance appraisal. This is the key point for this study. This trouble with the performance appraisal system at the Central Bank is not unique to the Bank nor to the region; as a matter of fact, many organizations not only in South America, but also around the world, are experiencing these kinds of problems.

Roberts (1995a), shows that establishing effective productivity systems based on performance appraisal has been problematic, especially in the public sector. Multiple barriers to an effective productivity system are present in the public sector, including difficulty in defining performance, in deciding adequate award amounts and a lack of supervisory motivation to rate performance accurately. Administrative decisions such as promotion, demotion, and wage increases are based upon factors other than employee's performance. Factors such as seniority, disciplinary action, personal affect, and political factors influence administrative decisions related to wage increases.

Even though the workplace environment and productivity of the Central Bank's employees is good, factors such as the difficulty in defining performance, in deciding adequate award amount, and a lack of managerial motivation to rate performance accurately, *can lead in the future to negative effects on the overall productivity of the employees and, hence, in the achievement of organizational goals*.

Roberts (1995b), shows that only 31 percent of the surveyed professionals report a link between performance appraisal ratings and pay. The study raises questions about the strength of the link between performance appraisal and pay, versus links to other factors. Most of the negative data on merit pay is state and federal information.

According to Tudor, Trumble, and Flowers (1996), *performance appraisal is critical to a company's continued success*, in that it allows the company to retain strong performers. It also provides poor-performing employees with guidance on how to improve. With the increasing use of merit pay, the role of the human resource department will grow in importance, as employees realize that their pay is directly linked to their performance appraisal. Performance appraisal meets a number of needs, it helps evaluate employees, provides feedback concerning their effectiveness, and can be used to justify raises, promotions, demotions, and terminations. Merit pay is an attempt to link compensation to performance. Merit pay, while based on past performance, is used to motivate future performance. Other compensation plans may take several forms including skill-based pay to encourage acquiring new skills, group incentive plans to motivate group performance and merit pay to motivate individual performance.

2.2.1. Central Bank of Colombia – Data Description

The data description of the Central Bank of Colombia was already made in the introductory section (5.1).

2.2.2. Statement of Model, Description of Variables and Hypothesis

In order to assess what variables affect wage increases in the Bank, those in job level 12 and higher and located at the headquarters were selected from a database sent to me. These employees are highly educated and make most of the important decisions at the Bank. The database includes the following variables; the coding for each variable appears between parentheses.

Dependent Variable:

Wages. Average monthly wage, measured in dollars (WAGES).

Independent Variables:

1. Position. Measured from 12 to 22; based on position in the Bank hierarchy (POSITION).
2. Tenure. Measured by number of years of employment in the Bank (TENURE).
3. Point Factor. Measured by points, that according to the HAY system, define points in terms of "know-how", "Problem Solving ", and "Accountability " needed to perform a job (POINTFAC). The following is The Classification of employees by points:

3192 - General Directors
1136 - 1500 - Directors Second Grade
568 - 860 - Directors of Department - Third Grade
375 - 494 - Heads of Sections, 5 or more years of tenure and a Master’s degree

247 - 327 - Professionals with 2 to –year tenure
142 - 215 - Professionals with less than 2 years of tenure

4. Performance Appraisal. Measured from 1 to 5 (PA). Based on classification of employees by performance:

   4.50 - 5. 00 - Exceeds the functions of the job
   3.75 - 4.49 - Satisfies the functions of the job
   2.75 - 3.74 - Partially satisfies the functions of the job
   < 2.75 - Doesn't satisfy the functions of the job

5. Gender. Measured by a dummy variable 1=male, O=female. (MALE).
6. Age. Measured by the number of years of age. (AGE).

An example of the population is shown in appendix 5.

Descriptive Statistics

The sample consists of 741 employees, composed of 64 percent males (474) and 36 percent females (267). Heads and Directors evaluate the performance appraisal of the employees through an annual survey. The distribution of performance appraisal ratings is: 9.6 percent of the employees exceed the functions of the job, 76.1 percent satisfy them, 13.2 percent partially satisfy them, and 1.0 percent don't satisfy the functions of the job (See appendix 6). The age distribution follows a bell shaped pattern with the mean at 38.6 years of age, and with: 4.04 percent of the employees between 20 and 25 years old (20 employees), 11.2 percent between 26 and 30 (88 employees), 21.9 percent between 31 and 35 (166 employees), 27.2 percent between 36 and 40 (208 employees), 20.8 percent between 41 and 45 (58 employees), 6.3 percent between 46 and 50 (56 employees), and 8.5 percent over 50 (49 employees). (See appendix 5). The distribution of employees by point factors is shown in appendix 6. The point factor distribution follows a bell shaped pattern with the mean al 391.1 points, and with: 8.6 percent (64 employees) performing jobs between 142 and 215 points (professionals with less than two years' experience), 48.1% (357 employees) performing jobs between 247 and 327 points (professionals with between 2 and 4 years' experience), 30.5 percent (221 employees) performing jobs between 375 and 494 points (heads of sections), 10.8 percent (80 employees) performing jobs between 568 and 860 points (third level directors), 1.08 percent (8 employees) performing jobs between 1136 and 1500 points (second level of directors), and 0.8% (6 employees) performing jobs with 3192 points (general directors).

The average wage of the Central Bank is $2,813, with a minimum of $1,180 and a maximum of $9,095. The distribution of employees by wages can be seen in appendix 9 this figure show that 4.75 percent of the employees (35 employees) earn less than $1,500 a month, 50.8 percent (377 employees) earn between $1,501 and $2,500, 21.9 percent (162 employees) earn between $2,501 and $3,500, 10.1 percent (75 employees) earn between $3,501 and $4,500, 8.6 percent (64 employees) earn between $4,501 and $6, 000, and that 3.8 percent of the employees (28 employees) earn more than $6, 000 a month. Appendix 7 and the statistics below reveal that the average tenure of the employees of the Central Bank is 11.59 years, with a minimum of 0.40 years and a maximum of 32.44 years. Appendix 10 shows that the positions with higher concentration are 12, 13, and 15. Positions 12 and 13 are professionals. Employees at position 15 are heads of sections. The following are the basic statistics included in this study:

TABLE 6

Variable	N	Mean	Min	Max
POSITION	741	14.194	12.000	22.000
TENURE	741	12	0.040	32.440
WAGES	741	2,813.5	1,183.0	9,095.0
POINTFAC	741	391.1	142.0	3,192.0
AGE	741	38.526	22.250	62.100
PA	741	3.9554	2.0000	5.0000

The null hypothesis is that performance appraisal rather than other variables (position, tenure, gender, evaluation factors, and age) explain the level of wages of the employees. In other words, performance appraisal plays the largest role in determining the wages of the Bank's employees. If this is true, then we will find a significant positive coefficient on the performance ratings, with much less significance among the other variables. The method to determine whether or not this hypothesis holds true uses a multiple regression model. In this model an estimated regression equation is used to describe how the dependent variable, i.e., wages, is related to the independent variables listed above, and an error named ‘e’.

2.2.3. Determination of the Regression Equation

Before the regression, it is important to look for the correlation between the independent variables to ensure that no independent variable is a perfect linear or a nearly-perfect linear function of one or more other independent variables. The more highly correlated independent variables are, the more difficult it becomes to accurately estimate the coefficients of the true model. To determine whether or not severe multicolinearity is present between the independent variables, the Pearson’s correlation matrix should be examined in the following table:

TABLE 7

POSITION	TENURE	POINTFAC	GENDER	AGE	PA
TENURE	0,132				
POINTFAC	0,709	-0,056			
GENDER	0,012	-0,012	-0,026		
AGE	0,107	0,013	0,065	0,127	
PA	0,155	-0,042	0,122	-0,002	0,065

According to the Table above, only one of the values is greater than the absolute value of 0.7, indicating that severe multicolinearity may not be present.

The first equation was an unrestricted model regressing wages (WAGES) on all 6 independent variables. The results are as follows:

Unrestricted Model (Included all Variables)

WAGES = - 5192 + 455 POSITION + 26.8 TENURE + 1.49 POINTFAC + 2.8 GENDER - 1.05 AGE + 176 PA

Predictor	Coef	StDev	T	P
Constant	-5.192,4	261,8	-19,84	0,0000
POSITION	454,95	14,44	31,50	0,0000
TENURE	26,828	3,035	8,84	0,0000
POINTFAC	1,48694	0,09660	15,39	0,0000
GENDER	2,79	41,69	0,07	0,947
AGE	-1,055	2,693	-0,39	0,695
PA	175,66	50,58	3,47	0,001

S = 539.6 R-Sq = 85.7% R-Sq (adj) = 85.6%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	6	1278552029	213092005	731,78	0,000
Error	734	213739441	291198		
Total	740	1492291470			

Source	DF	SeqSS
POSITION	1	1196976200
TENURE	1	8721734
POINTFAC	1	69328024
GENDER	1	0
AGE	1	13860
PA	1	3512211

The R-squared is 85.7%, which indicates that 85.7% of the variation in wages, is explained by the variation in the dependent variables. The F-value is used to determine whether there is a significant relationship between the dependent variable, wages, and the set of all the independent variables. If the F-value is large enough it will lie within the rejection region. When this happens, the hypothesis that the variables are unimportant and therefore have zero (0) coefficient values will not be accepted, and the overall regression model will be considered significant. In order to determine whether the F-value lies within the rejection region, the P-value on the Minitab printout needs to be examined. If the P-value is less than 0.05, it can be determined that the F-value lies within the rejection region, with a 95 percent level of confidence. For this regression model, the F-value shows a value of 731.78 and the P-value is 0. 000. Therefore, it can be concluded with a 95 percent level of confidence that this overall regression model is significant.

According to the T-values, there are significant variables at the 1 percent level: position, tenure, point factors, and performance appraisal. The T-values, like the F-value, also have a corresponding P-value. I decided that when the P-value is less than 0.05, the null hypothesis that the level of wages of the employees is explained by the current performance appraisal system, is not accepted and the variable is considered to be significant with a 95 percent level of confidence. The P-values are included in the table above. The P-value of the variable gender (0.947) and the variable age (0.695) shows that the regression equation is not influenced by these variables. Also, with these two variables there is a high probability to make a type 1 error.

Although the model shows overall significance, two variables are not significant. In order to determine if it is advantageous to remove variables, an F-test is used. This partial F-test is based on a determination of the amount of reduction in the error sum of squares resulting from removing one or more independent variables from the model. If the reduction is significant, the variables are important and should not be removed. The independent variables age and gender were both non-significant at the 5 percent level. To determine whether they could be deleted from the estimated regression model a partial F-test was performed as follows:

Restricted Model (Excluding Age and Gender)

WAGES = -5222 + 455 POSITION + 26.8 TENURE + 1.49 POINTFAC + 175 PA

Predictor	Coef	StDev	T	P
Constant	5221,6	249,5	20,93	0,000
POSITION	454,55	14,37	31,64	0,000
TENURE	26,824	3,030	8,85	0,000
POINTFAC	1,48719	0,09633	15,44	0,000
PA	174,66	50,45	3,46	0,001

S = 539.0 R-Sq = 85.7% R-Sq (adj) = 85.6%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	4	1278507271	319626818	1100,39	0,000
Error	736	213784199	290468		
Total	740	1492291470			

Source	DF	SeqSS
POSITION	1	1196976200
TENURE	1	8721734
POINTFAC	1	69328024

According to the F-test, the sum of squares is the same. The F-value now is higher with respect to the first regression. The model is, overall, significant. Therefore, age and gender can be removed from the regression.

Partial F-test

Ho: Variables are not important
Hi: Variables are important

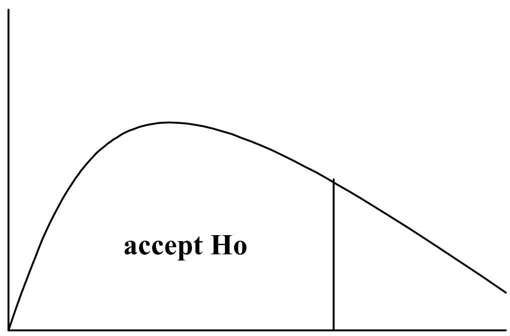
SSE (Restricted) - SSE (Unrestricted) / DF (Restricted) - DF (Unrestricted)

SSE (Unrestricted) / DF (Unrestricted)

(44758) / (2)

(291198.1485)

=0.07685145



F-critical value = 2.37

Conclusion: 0.07685145 does not lie in the rejection region; therefore, the null hypothesis is not rejected. The exclusion of the variables age and gender is statistically insignificant with a 95 percent level of confidence, and they can be omitted from the regression model.

As seen in the calculation above, after the removal of age and gender, the independent variables position, tenure, point factors, and performance appraisal are significant with a 95 percent level of confidence. The R-squared value is 85.7 percent, which indicates that 85.7 percent of the variation in wages, is explained by the independent variables. The F-value is 1000.39 and has a P-value of 0. 000, which means the overall regression is significant with a 95 percent level of confidence.

The next step in determining the regression equation, and at the same time looking for a parsimonious model (I intend to eliminate those variables that are less important). In order to do this, I made the analysis from two points of view, not only taking into consideration whether it is statistically significant, but also considering the magnitude of the effect (See appendix 8). Taking into account the first point of view, I tested the significance of performance appraisal (PA), to determine if the regression fits just as well with the variables removed from the specification as it does with the variables left in the specification. Dropping it from the regression model improves the results. The results can be seen as follows:

Restricted Model (Excluding Performance Appraisal)

WAGES = -4602 + 460 POSITION + 26.2 TENURE + 1.49 POINTFAC

Predictor	Coef	StDev	T	P
Constant	-4601,8	175,0	-26,30	0,000
POSITION	460,05	14,39	31,98	0,000
TENURE	26,179	3,047	8,59	0,000
POINTFAC	1,48829	0,09705	15,34	0,000

S = 543.0 R-Sq = 85.4% R-Sq (adj) = 85.4%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	3	1275025958	425008653	1441,7	0,000
Error	737	217265512	294797		
Total	740	1492291470			

Source	DF	SeqSS
POSITION	1	1196976200
TENURE	1	8721734
POINTFAC	1	69328024

As can be seen in the model above, the T-values are high for these variables and they seem to help determine wages. According to the partial F-test, the reduction in the error sum of squares is significant. Therefore, this variable can not be excluded from the regression since its measured effect on wages is significant. The F-test is as follows:

Partial F-test

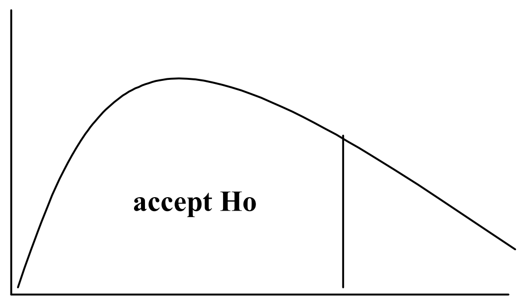
Ho: Variables are not important
Hi: Variables are important

SSE (Restricted) - SSE (Unrestricted) / DF (Restricted) - DF (Unrestricted)

SSE (Unrestricted) / DF (Unrestricted)

(3481313) / (1)
(290467.6617)

=11.9851



F-critical value = 2.60

Since the computed statistic 11.98 is greater than the critical value, the null hypothesis that these variables can be excluded is rejected. The exclusion of the variable performance appraisal is statistically significant with a 95 percent level of confidence, and it can not be omitted from the regression model.

As can be seen in the calculation above, that the performance appraisal, controlling for the independent variables position, point factors and tenure, is significant with a 95 percent level of confidence. The R-squared value is 85.4 percent, which indicates that 85.4 percent of the variation in wages is explained by the independent variables. The F-value is 1441.68 and has a P-value of 0.000, which means that there is a significant relationship between the dependent variable (wages) and the set of all the independent variables, with a 95 percent level of confidence. However, the variable performance appraisal is important. Hence, this variable must not be omitted from the regression model. The model is more explanatory with this variable.

Taking into consideration the second point of view, the significance of Tenure was tested, this time also considering the magnitude of the effect. The results are as follows:

Restricted Model (Excluding Tenure)

WAGES = -5180 + 486 POSITION + 1.31 POINTFAC + 147 PA

Predictor	Coef	StDev	T	P
Constant	-5.197,7	262,2	-19,76	0,000
POSITION	486,13	14,63	33,23	0,000
POINTFAC	1,30532	0,09894	13,19	0,000
PA	147,22	52,93	2,78	0,006

S = 566.5 R-Sq = 84.1% R-Sq (adj) = 84.1%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	3	1255741575	418580525	1304,14	0,000
Error	737	236549894	320963		
Total	740	1492291470			

Source	DF	SeqSS
POSITION	1	1196976200
POINTFAC	1	56282665
PA	1	2482708

As can be seen in the model above, the T-values are high for these variables and they seem to help determine wages. According to the partial F-test, the reduction in the error sum of squares is significant. Therefore, this variable can not be excluded from the regression since its measured effect on wages is significant, too. The F-test is as follows:

Partial F-test

Ho: Variables are not important
Hi: Variables are important

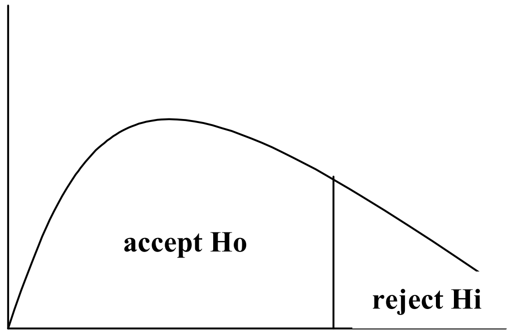
SSE (Restricted) - SSE (Unrestricted) / DF (Restricted) - DF (Unrestricted)

SSE (Unrestricted) / DF (Unrestricted)

(7603484) / (1)

(290467.6617)

=26.17



F-critical value = 2.60

Since the computed statistic 26.17 is greater than the critical value, the null hypothesis that these variables can be excluded is rejected. The exclusion of the variable tenure is statistically significant with a 95 percent level of confidence, and it can not be omitted from the regression model.

As can be seen in the calculation above, the removal of tenure, after controlling for the independent variables position, point factor and performance appraisal, is significant with a 95 percent level of confidence. The R-squared value is 84.1 percent, which indicates that 84.1 percent of the variation in wages is explained by the independent variables. The F-value is 1304.14 and has a P-value of 0.000, which means there is a significant relationship between the dependent variable (wages) and the set of all the independent variables, with a 95 percent level of confidence. However, the variable tenure is important. Hence, this variable must not be omitted from the regression model. The model is more explanatory with this variable.

The last step in determining the final regression equation and specifically to see what the error with only performance appraisal as the independent variable would be, is to test the significance of variables like position, tenure and point factors to determine if removing them from the regression model improves the results. This step in essence would prove whether the hypothesis could be accepted or not. The results can be seen as follows:

Restricted Model (Excluding position, and point factors)

WAGES = 236 + 652 PA

Predictor	Coef	StDev	T	P
Constant	236,4	512,6	0,46	0,645
PA	651,5	128,9	5,05	0,000

S = 1397 R-Sq = 3.3% R-Sq (adj) = 3.2%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	49841285	49841285	25,53	0,000
Error	739	1442450185	1951895		
Total	740	1492291470			

The value of R-squared is 3.3 percent, which means that 3.3 percent of the variation in wages, is explained by the variation in the independent variable. The F-value is 25.53 with a corresponding P-value of 0.000, which means the overall model is significant with a 95 percent level of confidence. In order to determine if it is advantageous to remove tenure, position, and point factor variables, an F-test is used. This partial F-test is based on a determination of the amount of reduction in the error sum of squares resulting from removing one or more independent variables from the model. If the reduction is significant, the variables are important and should not be removed.

Partial F-test

Ho: Variables are not important

Hi: Variables are important

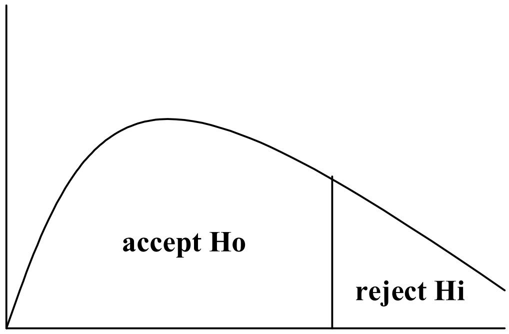
SSE (Restricted) - SSE (Unrestricted) / DF (Restricted) - DF (Unrestricted)

SSE (Unrestricted) / DF (Unrestricted)

(1228665986) / (3)

(290467.6617)

=1409.985973



F-critical value = 3.84

Conclusion: 1409.99 lie within the rejection region, therefore the null hypothesis is rejected. The null hypothesis that tenure, position, and point factor variables have no statistical impact on wages is rejected at the 95 percent significance level. They cannot be omitted from the regression model. The model explains a lot more of the variation in wages than when only performance appraisal is included

Before the final regression equation is formulated, in order to strengthen the findings, I ran exactly the same analysis as the one described for the sample as a whole on one position of the Bank, i.e., position 13. Position 13 was chosen because the largest number of employees is concentrated in this position. The results of this analysis on position 13 confirmed, with a 95 percent level of confidence, that the overall regression model is significant. The final regression equation (see Appendix 9) is as follows:

WAGES = - 5222 + 455 POSITION + 26. 8 TENURE + 1. 49 POINTFAC + 175 PA

Using this model, the following conclusions can be drawn: There are four significant variables at the 5 percent level. They are position, tenure, point factors, and performance appraisal. The variables age and gender are not significant. The R-squared value indicates that 85.7 percent of the variation in wages can be explained by the independent variables. For each position we increase in the hierarchy, wages increase by

US $455. This makes sense because higher positions in the hierarchy are accompanied with greater responsibilities. In a higher position the Level of wages will be higher.

As tenure increases by one year, the level of wages increase by US $26.8 a month on the pay scale, while everything else is held constant. This indicates that the longer an employee works for the Central Bank, the higher the wages he receives. This is not a large amount. For each point evaluated for a job, the level of wages increases by US $1.49 each time that the job position will be evaluated, while everything else remains constant. This has a high impact on top job positions.

Employees with good performance appraisal would receive an annual increase in wages of $175, all else held constant. However, according to the models run before, this explanation would be not consistent.

2.2.4. Findings and Implications

Wages are sensitive to more than just the performance appraisal increases. The results of this model don't fit the hypothesis that the level of wages is explained only by the current performance appraisal system. As a matter of fact, according to this model, the level of wages is explained by variables other than performance appraisal. Indeed, independent variables like position, tenure and paint factors are more important in determining the level of wage increases. These findings, that as tenure, position and point factors increase, the level of wages seems to increase too, are comparable to the results found in State and Federal organizations according to Roberts (1995), Tudor, Trumble, and Flowers (1996), mentioned earlier. Moreover, although the Central Bank during the last four years has been increasingly concerned with troubles in the workplace, establishing an effective pay increase system based on performance appraisal has been problematic in both State and Federal organizations as well. Today, the level of wages is still explained by variables other than performance appraisal. Establishing an effective pay increase system based on performance appraisal is not a process that can be achieved overnight. Effective performance appraisal implies structural organizational changes that could take years to implement. Therefore, the hypothesis that variables other than the performance appraisal variable explain wages is congruent with the results from this estimated regression equation

This study has important implications for human resource managers. It could be used to direct human resource policy in the Central Bank of Colombia. Performance appraisal is just one of several human resource functions being reengineered in the organization. The strategy is to look at the Bank as a whole and see what best fits the needs to fulfill the mission efficiently. To give managers a better way to communicate goals and expectations, along with tools that allow flexibility in rewarding individual employees, the organization can attract, motivate and retain highly skilled workers. It is necessary to be aware that the link between pay and performance needs to be much stronger. The result will be a higher level of motivation and energy in employees, especially top performers. *It is important to link organizational goals to personal goals, and pay to quality of results. This practice can support a fundamental organizational change. In this organization, which is involved in the reengineering process, a merit pay can support and reduce the resistance to new corporate values*.

2.3. Performance Administration System Proposal

According with the results of the study developed in section 2.2, this section is focused on showing what the experience of the restructuring process in the Central Bank of Colombia should be, in an effort to create the conditions for an increase in productivity. *The study seeks to illustrate how Human Resource Management could play an important role in this process through the design of a Performance Administration System based on a philosophy of motivation*. For the Central Bank of Colombia, Performance Appraisal is a way to achieve organizational goals, to maintain or improve cost-benefit relationships and, al the same time, to improve the efficiency of the organization by enabling conditions for knowledge creation within a rewarding workplace environment.

The Central Bank of Colombia is responsible for ensuring the growth of economic and social development in the country. The Colombian government defined the autonomy of this organization, and, at the same time, its functions. The Central Bank has been involved in several processes for the purpose of adapting the organization to the new government regulations and at the same time to build flexible organizational structures in accordance with current and future needs. Human Resource Management is committed to help reach the goal of efficiency and, more importantly to become more productive. The organization considers Performance Appraisal the backbone of its strategy to motivate employees. However, the organization has become increasingly concerned with troubles in the workplace as a result of a lack of ways to consistently motivate employees. Furthermore, the current Performance Appraisal System of the organization is subjective; hence, employees don't believe in it. Currently, there is not a goal-setting agreement between managers and employees, managers impose the objectives and provide feedback once a year bases based on their perceptions. The only mechanism for ensuring that objectives are set forth equitably among employees is managerial judgment. Without external requirements to guide managers in making necessary judgments, there is substantial potential for inequities resulting from sheerly unintentional misjudgment in the setting of employee's objectives. In addition, the power to determine employees' probabilities of achieving and surpassing their objectives inevitably comes to be used as a private system of rewarding and punishing employees on whatever grounds the manager chooses, using a system outside of formal organizational control. If the organization does not realize the essential role of an objective performance appraisal system, it will be difficult to formulate and to implement strategies oriented to motivation and innovation.

In this study a *Performance Administration System is proposed as a way to consistently formulate and implement Human Resource policies and practices in conjunction with the organizational change proposed in the theoretical framework*. People are hired to fill positions in organizations. A position consists of a set of job functions that the organization needs to have performed on a recurring basis in order to produce the goods and/or services that define its business. Since a position consists of a set of job functions, it follows that a person's performance in a position should be judged on the basis of how well he/she fulfills the position's functions, that is, in terms of their competences. Moreover, a performance Administration Performance system should identify strengths and weaknesses of job incumbents, and also employees' future potential. This means that a Performance Administration system needs a more flexible perspective that that offered only by job functions.

For the Central Bank of Colombia, all the explanation above means to move on from the perspective of a Performance Appraisal System based on past performance in a very subjective way to a system that allows to *formulate and implement consistent HR* *policies and practices*. It should be taken into consideration that a *Performance Administration System will allow an objective-setting process* every three or six months to assess and redefine the functions of a job, knowing that the development of a job function is not static but dynamic. Hence, it requires organizational analysis and HR planning. The coordination between HR planning and the proposed Performance Administration System will occur through the use of the job functions, work units, and organizational objectives. Furthermore, this system will allow the identification of specific educational development needs, training needs, and finally, a way to determine staffing and compensation needs.

2.3.1. Research on Management by Objectives and Motivational Strategies

According to Marmer Solomon (1993), *companies need to share the overall vision, mission and strategic plan of the company with employees*. If employees don't understand the overall mission and objective of the organization, then projects are not going to have practical meaning for them. Nor will employees have the focus to complete projects effectively and efficiently. If they do know, that will prioritize what is and isn't important to accomplish each day they arrive at work. Companies can disseminate this information throughout the organization, whether it is a hierarchical structure or self-managed work teams. Regardless of how it is done, organizations need to help employees plan and prioritize on both an organizational and personal level. The company and the individual should develop a strategic plan that should not be longer than three years. Then they both should focus and manage the strategy on a yearly, monthly and then a daily basis.

According to Rodgers and Hunter (1991), “goal setting, participation in decision-making, and objective feedback have each been shown to increase productivity. As a combination of these three processes, management by objectives (MBO) also increases productivity”. A meta-analysis supported this prediction: 68 out of 70 studies showed productivity gains. The literature on MBO indicates that various problems have been encountered with implementing MBO programs. One factor was predicted to be essential to success: the level of top-management commitment to MBO. Proper implementation starts from the top and requires both support and participation from top management. According to the study, results of the meta-analysis showed that when top management commitment was high, the average gain productivity was 56%. When commitment was low, the average gain productivity was only 6%.

In fact, MBO was developed as a synthesis of the three component processes: goal-setting, participation in decision-making, and objective feedback Goal-setting is the fundamental process in an MBO program. Participation in decision-making promotes understanding throughout the organization. According to Rodgers and Hunter, "Managers who rely on only their own ideas are more like a one-person orchestra than a conductor of musicians, but with participatory input from lower levels, useful information that is known to subordinates is made known to top management". Objective feedback is given by managers at the end of each period of evaluation to promote progress toward the objectives that have been set through participatory involvement and dialogue. Uncertainty about the standards that will be used to assess progress toward goal attainment is reduced. Positive recognition is forthcoming for objectives that have been met. For objectives that have been not been met, a message is conveyed that the goal is still important. This message initiates a search for new work methods that may be more effective (Nadler, 1980).

Many researchers believe that MBO must be initiated from the top down with full participation throughout for a program to be implemented successfully. Top management needs to have high commitment to the program and to become involved in goal setting. The opinion that top management commitment is critical to success is not unique to the MBO literature. Indeed, a massive body of research on different organizational development interventions warns that interventions have little chance without top management commitment (Argyris, 1973). MBO is not an exception (Howell, 1967).

According to Kane and Freeman (1987), participation in the process of goal-setting will lead employees to commit themselves to achieving their objectives to a far greater degree than if objectives were imposed. Such commitment is generally believed to be the result of the person's intrinsic motivation for achieving the objectives. This type of motivation is self-determined and freely accepted; this way, their achievement becomes a measure of one's self-worth and competence. It is the essence of intrinsic motivation. It is highly desirable to get people to strive for objectives for intrinsic rather than extrinsic motives because these motives will inspire them to maximize their efforts rather than to be complacent. At this point, it is important to say that managers must be well aware of employees' functions with the purpose to objectively evaluate them in terms of fulfillment of their job functions.

2.3.2. Organizational Structure

As has been described in the introductory section, the Central Bank of Colombia has hierarchical structure with high control. The functions of the Central Bank are assigned according to principles of administrative rationality and organizational efficiency. The structure responds to the needs of fulfilling governmental and legal objectives, seeking to improve current services.

Each job position is justified if it adds value to the divisional objectives. The definition of responsibilities, functions and objectives are explained in terms of the identification of the profile of each job position, being differentiated according to relative importance inside the Bank’s structure.

2.3.3. Performance Administration System Proposal Philosophy

The philosophy behind the Performance Administration system proposed for the Central Bank of Colombia should at first look to improve the current performance of employees who may not be working as effectively as desired Secondly, the Philosophy should be to prepare employees for future promotions or for upcoming changes in design, processes, or technology in their present jobs, as well as for the organizational change. Recent changes in the business environment have made the Human Resource Development function even more important in helping the organization to maintain competitiveness and prepare for the future. Technological innovations require training for affected employees. Competitive pressures are also changing the way the National Bank operates and the skills that the employees need. *The Performance Administration System proposal of the Bank must be tailored to fit the organization’s strategy and structure that enable conditions for motivation and productivity improvement*. This way, the organization could see to an extensive training in team skills as well as in individual job skills as a way to make innovative organizational structure as intended.

The objectives proposed of the Performance Administration System for the Central Bank of Colombia are as follows:

A. Identify employees' strengths and weaknesses for:

- Selection of leaders in terms of the background and expertise of individuals in particular topics.
- Basic training to improve performance.

B. Prepare current employees for future promotions, changes in design, processes and technology in terms of skills such as:

- Leadership, Team-Building, Creativity, Goal-setting.

Many organizations around the world have been facing several difficulties implementing Performance Appraisal Systems successfully. Technology and costs, are the quid of the problems; the major problem is how to implement a Performance Appraisal System that motivates employees to improve performance and that allows for innovation. To generate innovative ideas is not simply a matter of processing objective information. *The formulation and implementation of the Performance Administration System would allow the organization to develop the conditions for consistently motivating employees to perform better, and most importantly, to innovate. Hence, the system enables the conditions to increase organizational productivity.*

2.3.4. Performance Administration System - Formulation

Definition and identification of Competencies

The Central Bank of Colombia should realize that organizations in the future would be more focused on their people. The role of personal competencies will be essential. If we use "people" as tools for organizational success, then this "people" would be trained in terms of all they can give to the organization, in other words, their competencies. It is important to clarify that a competency is a characteristic of a person that is related to the performance of a job position, and that this performance could be differentiated between high and low performers. A competency is needed: to perform successfully any job function, for profiles and norms for selection purposes, for human resources planning, for performance appraisal, and for personal development. The identification of competencies could include the following research:

Motivation: what are the different ways in which employees feel motivated?
Personality: What is the general predisposition of the employee to react to specific situations (to determine confidence, personal control, stress levels)?
Attitudes and values: what employees think in terms of values, interests, and so forth.
Knowledge: What is the knowledge of employees in terms of background, job functions and procedures.

The "Selection of Personnel " unit of the Central Bank has a database with the information (personality tests scores, and so forth) of current employees that facilitates the identification of employees' competencies to the Performance Appraisal System proposal.

Action Plan

The identification of competencies explained above would be useful in predicting job performance, goal setting, employee development and personal responsibility with respect to outcomes, all of which will be essential to attain overall organizational improvements in both productivity and innovation.

A committee of Human Resources with a clear vision of the future should be formed in order to analyze organizational needs and required competencies. The committee must take into consideration the following aspects:

A. Identify strengths, weaknesses, threats and opportunities for the organizational success, and stipulate goals and challenges for the future.

B. Taking into consideration present and future challenges, the committee must agree upon the goals of employees according to strategic challenges.

C. Identification of employees` competencies in the current database.

D. Identification of job functions through job description. Currently, there is already a job description for all job positions in the organization, and both managers and supervisors have a folder with the job description of their employees unit.

E. Determine all the activities employees must undertake in order to achieve objectives and goals for each job function. Participation in the process of goal-setting will lead employees to commit themselves to achieving their goals to a far greater degree than if the objectives were imposed. According to Erez and Kanfer (1983), such commitment is generally believed to be the result of eliciting the person's intrinsic motivation for achieving the objectives. This type of motivation is elicited because, to the extent that objectives are self-determined and freely accepted, their achievement becomes a measure of one's self-worth and competence. According to the same authors, validating one's self-worth and competence is the essence of intrinsic motivation. It is of course highly desirable to get people to strive for objectives for intrinsic rather than extrinsic motives, because these motives will inspire them to maximize their efforts rather than to simply satisfy, meaning to exert only enough effort as needed to "get by".

F. Develop brainstorming idea-generation meetings between managers, supervisors and employees with the primary purpose of thinking about what aspects of a job function can be improved. Secondly, what new things or activities can be done to enrich the job functions or even divisional job functions? The emphasis would be on innovative ideas that improve productivity.

G. Define how long it would take to perform a job function discussing with employees who will be held directly accountable for specific job functions. This time agreement must be the result of open communication between managers, supervisors and employees. It is important for expected times for the accomplishment of goals to be reasonable. Moreover, generally in all of the activities aimed at performing a given job function, employees are going to expend a specific time, after which one still may need to interact with other areas. This means, that the employee depends both on directly accountable areas and on another indirectly accountable ones.

H. Objectives should be revised during the course of the year as managers and supervisors find obstacles to achieving their objectives that could be beyond their control.

I. Objective feedback based on the steps explained above must be given by managers at the end of each evaluation period to promote progress toward the objectives that have been set forth through participatory involvement and two-way discussions. The certainty about the standards that will be used to assess progress toward goal attainment is high. Positive recognition is forthcoming for objectives that will have been met. For objectives that could not be met, a message that the objective is still important is essential. This message will initiate a search for new work methods that may be more effective. The idea is that the organization understands what is necessary for employees to maintain the belief that their performance is being appraised against legitimate standards.

Figure 11, explains the formulation of the Performance Administration System as follows:

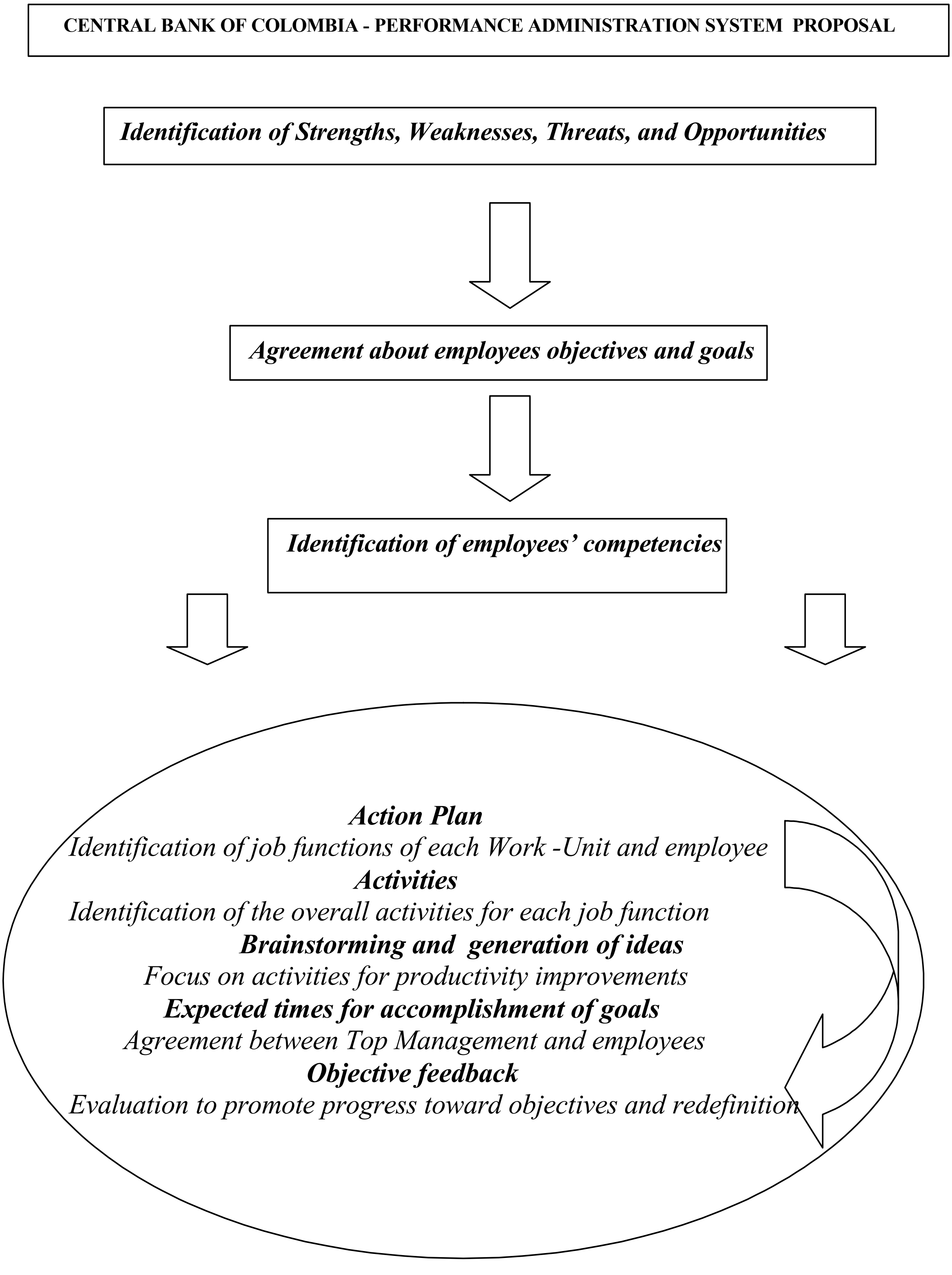


Figure 11: Performance Administration System Proposal. Source: Author

2.3.5. Performance Administration System - Advantages

I. The initiation of the Performance Administration System proposed from the top down, with full participation throughout, would permit that the top-management team serve as a role model for the next level of management. All senior staff members should be involved in these discussions. The top management team then would pass these lessons down to the next ring of management, and so on, until the process has permeated the entire organization. As lower employees have an opportunity to comment on operational, technical, or administrative problems and issues, top management would be able to acquire a better understanding of the barriers and obstacles to accomplishing organizational objectives and goals.

II. Participation in the process of goal-setting would motivate employees to produce major gains for the Bank. This practice would allow the Central Bank to:

- Redirect its employees to become more quality-aware.
- Set goals that are specific and challenging, yet attainable, which would lead to increase motivation.

III. Continuous feedback about employees' progress in relation to their goals would make it possible for midcourse corrections and ensure that employees stay on course toward long-term goals.

IV. Encouraging employees' involvement through suggestions and specific work changes, would change the idea that human resources creates merely labor costs rather than assets.

2.3.6. Performance Administration System Disadvantages

I. Managers may use performance agreements and delegation as a way to abdicate their true responsibilities (e.g., to understand and improve processes and systems).

II. The biggest problem could be with setting easy goals.

III. A performance measurement that does not lead to organizational effectiveness.

IV. If the commitment level from top-management is low, and they refuse to become personally involved in the program's tasks and responsibilities, then different subunits within the organization are more likely to compete with one another. Consequently, interdepartmental conflict is likely to increase, and productivity is likely to suffer. Support for the program is half-hearted, and the program can be expected to deteriorate over time until it is no longer in use.

V. If managers and supervisors offer high support for the program, but do not participate in goal-setting, then participation in decision-making would he found at lower levels but not at the top. Employees may not be able to learn the new management system. Coordination problems can arise. The ability of one unit to attain a high priority objective may require cooperation from a second unit, but this cooperation may be counter to the second unit's objectives. Such problems can emerge when each unit's objectives are set separately. Thus, the full effects of goal setting and participation may not be realized because of a failure to coordinate innovations across levels and within the units.

2.3.7. Challenges for Human Resource Management

Human Resource Management of the Central Bank involves all management decisions and practices that affect or influence the employees who work for the organization. In recent years, increased attention has been devoted to how the organization manages human resources, and especially, how to design a Performance Administration System that is structured, consistent, and that develops trust between top management and workers. *This increased attention comes from the realization that an organization's employees enable it to achieve its goals, and the management of these human resources is critical to its success*. The management of human resources needs to determine how employees can be brought together so that everyone can contribute to optimizing the system. This means assessing skills, providing relevant education and training, matching people to jobs, aligning the reward systems, and planning for promotion and succession.

2.3.8. Challenges for Human Resource Planning

The strategic planning process in the Central Bank involves forecasting Human Resources needs and produces the vision, mission, goals, and strategies of the *organization that link the organization's intentions and strengths to the environmental opportunities*. Managers and supervisors alike have the responsibility for ensuring that everyone understands the overall system proposed, the mission requirements of the organization and how to improve performance. They should understand the system's interaction within and beyond its boundaries, process capability, and how their commitment and decisions would impact organizational functioning, including their employees.

2.3.9. Conclusions and Implications of the System

According to Kane and Freeman (1987), people are hired to fill positions in organizations. A position consists of a set of job functions that the organization needs to have performed on a recurring basis in order to produce the goods and services that defines its business. Since a position consists of a set of job functions, it follows that an employee's performance in a position should be judged on the basis of how well he or she carries out the position's functions. The Performance Administration System proposed to the Central Bank of Colombia should have a more flexible perspective than that offered by job functions. It needs to consider how all of the job functions being carried out in the work unit and the organization can be combined and coordinated to achieve outcomes that will vary from one period to the next. It must also deal explicitly with the interdependencies among employees in the workplace. The success of the Performance Administration System Proposal will depend on an outstanding recognition of the following aspects:

- Goal-setting will be the fundamental process in this Performance Administration System proposed.
- Participation in the decision-making process will promote understanding throughout the organization, with participatory input from lower levels; useful information that is known to subordinates will be made known to Top Management.
- Participation alone will not be enough to improve productivity. Researchers argue that participation is successful only when used in tandem with goal-setting.

- The Performance Administration System must be initiated from the top down, with full participation throughout, if the Central Bank wishes that the program is implemented successfully.
- Top management must be highly committed to the program and become personally involved in goal-setting. According to Latham and Yukl (1975), a massive body of research on different organization development interventions warns that interventions have little chance of success without top-management commitment. The literature on the implementation of MBO programs suggests that MBO will be fully effective only if introduced with the full support and participation of top management.
- Because the organization of the Central Bank reflects a deeply embedded traditional culture, the organization should pilot-test the system before implementing it throughout the whole company. In doing so, it could better involve employees in the planning process to obtain their early input.
- Managers and supervisors must be provided with the education and training, communication and work structures necessary to support and ensure the Performance Administration System success.

2.4. Regional Cultural study

2.4.1. Research on Culture Effect on and Across Organizations Worldwide

There is an important aspect to consider in this dissertation, which is the cultural aspect. The cultural aspect has to do with the possible barriers that could arise in terms of the Central Bank Organizational Culture compared with the culture of the central banks of the region. *This means that a model that is feasible for an organization such as the Central Bank of Colombia, is not necessarily feasible for the same kind of organization in different country*. For this reason, it was necessary to investigate the different studies related to the degree of cultural differences or similarities. This is an important issue taking into consideration that the Central Bank of Colombia is the pilot project of this dissertation. According to Lorsch (1986), there are five specific aspects of the effects of culture on organizations: direction, pervasiveness, strength, flexibility, and commitment. Direction refers to the way culture affects the attainment of goals. Culture can help push an organization toward its goals or away from them. It can either be consistent with organizational goals (a positive force) or it can be inconsistent with goals (a negative force). According to Lorsch, the degree to which members share a culture is an indication of its Pervasiveness. The Strength of culture refers to its impact on members. Some organizations have what amounts to a compelling force over their members. This is the case of Japanese organizations. The other aspect of culture is Flexibility. Flexible cultures are adaptable to changing conditions. Organizations, particularly those that face chaining and complex environments must retain flexibility to accommodate. Evidence of flexibility (or inflexibility) can be seen in how organizations respond in times of crisis. Flexibility can be enhanced throughout the organization by cross training and frequent job reassignments. With cross training, workers learn many different jobs. This tends to reduce the narrow provincial view that often accompanies a narrow, functional job focus. Frequent reassignments help familiarize employees with the total organization and can help reduce divisional alliances that may not be in the best interest of the total organization. Flexibility is an important factor in the integration of culture and strategy. The last factor of culture is Commitment. It is a condition whereby members of a group render their efforts, abilities, and loyalties to the organization and to the goals it pursues in exchange of satisfaction. A strong culture can enhance the likelihood that members will display a high degree of commitment.

2.4.2. The Globe study[18]

Started in 1993 by Robert House, from The Wharton School at The University of Pennsylvania, this investigation has involved 170 investigators from 64 countries. The study has had a mixture of qualitative (newspaper analysis, semi-structured interviews, non-obstructive observations and focus groups) and quantitative (two surveys to medium-charge managers) methodologies; the focus was set on three sectors where focused on: telecommunications, finances and the food-processing industry.

The study was focused on the relationship between culture, organizational values and leadership. The development of the methodology and research tools was developed in a collaborative manner and and it took approximately 3 years. A questionnaire was

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[18] The basis for this study has been taken from the work of Dr. Enrique Olgiastri, Professor and Research of the Universidad de los Andes in Bogotá, colombia, regarding its valuable added value to this dissertation.

developed and a quantitative survey was applied to approximately 16,000 medium-ranked managers in 825 organizations worldwide (House, Hanges, 1998). A common criteria was developed for the quantitative investigation (Agar, 1994, 1996; Thomas, 1996; Agar and McDonald, 1996). This report only covers the quantitative investigation carried out with approximately 1400 Latin American managers and the Alfa and Beta questionnaires. The quantitative part of the study was cultural, with 9 scales or variables, 6 of which had their origin in the Geert Hofstede study (1980, 1992). The same variables were used to ID the organization's characteristics. *On the leadership part, 21 variables were developed on what the surveyed managers consider that eases or stops an exceptional leadership in their company, their implicit leadership theory*. In the 10 Latin American countries, approximately 1400 medium-ranked mangers were surveyed (neither presidents nor vice-presidents and two levels above workers) in companies from the three sectors mentioned.

The team from The Netherlands started the questionnaire's item design, and which consisted of 753 items: 382 on leadership and 372 on culture; with these, two questionnaires were prepared, Alfa and Beta. The Alfa questionnaire contains questions on corporate organizational development, characteristics and leadership behavior that managers consider to be most important; in addition to this, answers were obtained on the social-demographic variables and profiles of the people surveyed. The Beta questionnaire measured the country's culture or the person's organization, leadership and profile. Equivalent questions were used to measure the organizational and social level and it they differentiated between what people thought their organization should be and what it really was. The items were tested and translated into 35 different languages; they were re-translated with the double translation system (by a different translator) into English, and the ones that did not have a similar meaning as the original were checked. In this manner, 6 different questionnaires were obtained in Spanish; these were applied in Mexico, Central America, Ecuador, Colombia, Venezuela, and Argentina. There was also a questionnaire in Portuguese for Brazil. Spain and Portugal made their own translations. Two test-studies were carried out; the first one, with 877 people from 28 countries (including Argentina, Brazil, Colombia, and Venezuela), on which the scale's psychometric properties were evaluated. The second test-study was made with 1066 people from 16 countries other than the above, and validated the first test-study's results. The statistical analysis justified the scale's use as added measurements to the cultural phenomena. This way, 18 scales were obtained to measure an organization's culture, 18 scales to measure the organizational culture, and 21 scales about the manager's perception of their leader's characteristics, effectiveness, and behavior. All except three scales showed to have excellent psychometric properties. The scales showed to be one-dimensional; they have adequate Cronbach Alfa coefficients and a strong capacity to add to the social level (e.g., the results of the rwg (?) coefficient). A technical and statistical presentation of the development and validation of the scales can be obtained in House, Hanges and 170 co-authors (1997).

The total of quantitative surveys by countries is as follows: Argentina: 153; Bolivia: 99; Brazil: 265; Colombia: 302; Costa Rica: 114; Ecuador: 49; El Salvador; 25; Guatemala: 110; Mexico: 260, and Venezuela: 150. The total number of surveys in Latin America was of approximately 1400. Initially, statistical descriptions of each country's results were obtained and arranged in largest to smallest order, according to the results of each scale. Later, the countries were divided into four qualitatively different categories (A, B, C, or D). According to the dispersion standard obtained from each scale, "A" countries turned out to have extreme principalson the variable, with averages more than one standard deviation above the international average. "B" countries were those whose results were above the international average but below its standard deviation. "C" countries were those which ranked below the international average but above the standard deviation. "D" countries were those which were ranked at a very low end of the scale, the lower part on the international average and one standard deviation below. It's worth highlighting that only three categories appeared on some scales, when the data were too concentrated, while others showed five due to countries being too far from the international average. For analyzing these results countries classified as "B" or "C" were considered to have medium principles ; "A" countries, high principals, and countries in the "D" category, low principals on the measured scale. This ranking is between the 61 countries on which we have information that allows to make an adequate comparison of the different Latin American countries with the rest of the world. It also permits to determine both the similarities and differences between Latin American countries since almost all of them are in the "A" category and the rest in the "B" category so you can easily say that there is a relative cultural homogeneity. On the other hand, if half of the countries in Latin America are in the "A" category, and the other half are in the "D" category, we can say that there are two types of leadership or culture. To further underline this point, the variation coefficient was calculated (the standard deviation divided by the average) to know the variability level between Latin American countries; there is a relative awareness among investigators that when the variability is not above 25% (a variable coefficient of 0.25) there is a relative homogeneity of the results.

Once the cultural homogeneity and the leadership have been identified in Latin America, a preliminary grouping by cultural regions of all the countries worldwide was made and each region was classified as “A”, “B”, “C”, or “D” with the same procedure mentioned above. This allowed for an additional comparison to be made between the region and the rest of the world.

2.4.3. The Latin American Culture

Culture was defined as: the principles, beliefs, motives, sense of interpretation of meaningful events that have resulted in experiences shared by a group and which are transmitted from one generation to the other. In the quantitative Globe study, nine cultural variables were measured, from both global and organizational society (the latter shall not be discussed in this document). Each one of the variables will be analyzed, as well as the survey on the Latin American managers’ perception of their culture and how they would want their culture to be. These results will be compared with the ones from the rest of the world. The summary can be seen on appendix 12.

Reduced Uncertainty

This variable was defined as the degree to which an organization has developed (or wants to develop) standards and procedures aimed at reducing uncertainty on future events. The low principles of this scale show an organization that is tolerant with its level of uncertainty, while the high indicate an organization that needs to avoid uncertainty.

The need to reduce uncertainty is a normal part of life, but on this point there are important differences between the countries. This cultural characteristic was noted by the Hofstede study (1980, 1992), which measured the tolerance of uncertainty with three questions about the preference to keep job stability, following the organization's rules and the feeling of on-the-job-stress (product of uncertainty). It is about the trend to structure and control the future; on this point, the surveyed Latin countries, both American and European, yielded high indications of the need to do so. A relative consensus was found at this respect with a very small variability between Latin American countries. (Ogliastri, 1996, page 109).

Two decades later, at Globe, uncertainty was studied with four points that inquired about the state of the current society and the managers were asked to rank between one and seven their agreement or disagreement with the following questions: are experimentation and innovation sacrificed to emphasize order and consistency in this organization? Do the people in this organization live lives that are too structured and with few unexpected events? Are instructions and social requirements known to detail in this society, so that the citizens know what is expected of them? Does this society have rules and procedures that cover almost all situations or very few situations? With the exception of Mexico, all Latin American countries ranked below the international standards and in three of them, in the extreme category of cultures where many unexpected events take place, there are no clear rules or policies; there is little order and much improvisation (Venezuela, Guatemala and Bolivia). East European countries (Russia, Hungary, etc.) share this position with the Latin American region. The variation between Latin American countries is very small, barely 7.3% (the value of the coefficient of variation is of 0.073%), which leads to the conclusion that there are no cultural differences in this aspect; the similarities that Hofstede had found two decades before, still remain.

In the part of the survey that measures what the managers wish happened in their countries, the questionnaire's parallel structure kept, in other words, the same questions that were asked, but now they were oriented toward what should be: Do you think that order and consistency should be emphasized in your society, even at the expense of innovation and experimentation? Do you think that a person with a highly structured life with few unexpected events should be thankful or is missing many of life's things? Do you think that society's game rules should be written in detail so that everyone knows what is expected from him or her? Do you think that this society's leaders should give detailed plans or leave action to the people's liberty? Do you think that in this society there should be rules or laws that cover all situations, some situations or very few situations?

All Latin American countries ranked above the average regarding the wish for more structure and less uncertainty in society. Most of them can be highlighted (Brazil, Colombia, Ecuador, El Salvador, Mexico and Venezuela) and ranked on the side of the countries that most strongly wish to avoid uncertainty (from the "A" group between 61 countries worldwide). The differences between the Latin Americans measured by the coefficient's variation are very small (5.4%), indicating that in this aspect there is relative cultural homogeneity between Latin American countries. On the other hand, it's worth noting that given the great difference between what people actually live and what they wish to live in Latin America, efforts to diminish uncertainty will be an important trend in the future. The Germanic countries of the study (East and West Germany, Austria, Switzerland, and Holland) have the greatest contrast with Latin America, the former feeling that they have everything perfectly ruled and predictable up to the point of wishing for a lot more uncertainty. Trying to avoid uncertainty is not necessarily the opposite of tolerating ambiguity, as some scholars have thought. At this point it is necessary to distinguish three things: one is that people in a country live an uncertain reality, another one is that they are able to tolerate situations of ambiguity and the last one is that they would prefer to (or not to) change the situation. Latin American countries continue to have cultures that are tolerant of uncertainty. But one wish that executives have in these countries is to lower their society's uncertainty level. Whereas avoiding uncertainty is desirable in these Latin societies, tolerating ambiguity is one of the greatest virtues of living in one of these societies. This makes people less rigid; a more creative mind is developed, capable of surviving in everyday chaos. If only we could lower chaos and keep tolerance...

Elitism or distance of power

This variable determines the degree to which the members of a society expect and want power to be shared equally. The higher the principals on the scale, the higher the elitism or the distance from power that is lived (or that wants to be lived) in that society. Inequality exists in all human and animal societies. Then, why do people want to live in more equal societies? Managerial levels do not escape this either: in all the countries of the world there is a great desire to lessen the distance between the people and the power. European and American Latin countries are among the most elitists but are also among the ones that would prefer to be more egalitarian.

The managers' description about the differences of power in their organization and what they would want to happen in their countries, was based on five indicators that allowed us to make the comparison: 1- Are the subordinates in your country supposed to question there superiors when they disagree or follow their orders? 2- Is a person's influence based on the authority of his or her post or on his capacity and contribution to society? 3- Do people in positions of authority try to increase or to diminish their distance from their subordinates? 5- Is power concentrated or is it shared throughout society in your country?

Of all the regions in the world, *Latin America, The Middle East and Latin Europe resulted to be the most Elitist*. , Seven out of the 10 Latin American countries studied: El Salvador, Argentina, Guatemala, Ecuador, Colombia, Venezuela and Brazil, appear in the highest power inequality group, just like all Latinos from Europe (Spain, Portugal, Italy, Greece, France). Do this culture of sharp differences of power in society have its origin in the Roman Empire? Surprisingly, some countries of the old Soviet Union also have a high inequality of power (like Russia, Hungary, East Germany) probably because the attempt to realize socialist ideas was centered exclusively on economic equality, and a fundamental reason for its failure was the authoritarian and dogmatic structure of power. Some Asian countries also belong to this elitist group.

In an intermediate range of elitism is Costa Rica; probably due to the way it was populated, namely, by families that established themselves to work their own earth, without big landowners or inequalities; this left an inheritance of relative social equality and democratic values. Mexico also was classified above the average, but not with high scores of elitism. The Netherlands, the Israel of the kibbutz, the communes, the Nordic and Anglo-Saxon countries appeared as egalitarian, as was expected. The very low elitism described by the managers from Bolivia was surprising. The Czech Republic was in a category by itself, being the most egalitarian of all the studied countries, probably due to its being the socialist nation most estranged from the Soviet sphere.

Why were Latinos so elitist compared to Anglo-Saxons? In the first place because of the historical background of these societies, so hierarchical and closed as to generate elitism, envy and even violence. This way, the person who can make it to the top has to restrain access to the others. It has to do with how the importance of power is valued in daily life, the acceptance or rejection of the differences of power between people, or the preference for equitable relationships. The other dimension of the study was what these managers responded on the surveys about their preferences for the society they would like to live in. *A universal answer was that of less elitism and less distance to social power in their societies*. The exception, once again, was the Czech Republic, which finds acceptable the level of low elitism that it has. Of the 61 studied countries, *the one that occupied the first place in the desire for a less elitist society was Colombia*, and the group of countries that want more equality was once again the Latino ones: Spain, Venezuela, Ecuador, Argentina, Guatemala, Brazil, Portugal, and Greece. They will continue to experience great social tensions due to their desire to lessen inequality, while in the managerial levels of Latin American societies there is a great desire to diminish the distance of power, to live in a culture less stratified hierarchically.

Equality of genders

Although at the Globe study we started from the variables that Hofstede had defined two decades earlier, in the point of “masculinity” two variables were noticed: a-) one on affirmative and dominant values (that have been traditionally considered as “masculine”), and the values of fondness and interpersonal warmth that have been called “feminine”, and b) on the preference of the equality of gender, i.e., the topic of this section.

The study tried to identify to what extent people in a country prefer to minimize the role and status differences between men and women. The questions asked to the managers were aimed at distinguishing the following points, rated between 1 and 7 as to agreement or disagreement: In your society, are boys more stimulated than girls to end up getting a university education? In your society, more emphasis is put in athletic programs for boys than for girls? In your society, is it worse if a boy fails in school than if a girl fails in school? In your society, who has the most probabilities of ending up occupying a top level position, a man or a woman?

When the results of Hofstede are compared to those of Globe, Latin American culture is seen to be changing quickly, particularly in the attitude toward the equality of sexes. With the exception of Guatemala and Ecuador, Latin American countries described their society as being in the middle of the scale (group "B" of countries), on the international average. It should be noted that only four of the 61 countries gave an average that was slightly shifted toward the feminine prevalence. It is clear that in almost all the countries of the world discrimination is perceived against women, this being sharper in Latin America in Ecuador and Guatemala. But it is also evident in the data that show a coincidence among Latin American countries, since they are not located in opposed ends but are contiguous and next to the international average. The variation of the results among the ten countries is very small, only 7. 3%, which allows to conclude that there is a cultural homogeneity concerning the perception that one has about the equality among sexes. The preferences of these managers were also investigated regarding the equality of sexes in the future with questions similar to the previous ones: a) I believe that this society could be managed more effectively if there were: - more women in positions of authority than now. b) I believe that in this society the opportunities for positions of leadership should be: - more accessible for men, - more accessible for women. c) I believe that boys should be stimulated more than to the girls to end up having university education (agree or disagree?). d) I believe that there should be a bigger emphasis on athletic programs for boys than for girls (agree or disagree?). I believe that it is worse for a boy than for a girl to fail in school (agree or disagree? On a 1 to 7 scale).

According to the study, the answers given by Latin American managers are really interesting regarding how they would want their country to be in the future: *most of the seven countries expressed a clearly high desire for equality among sexes*, and the three remaining ones (Guatemala, Ecuador, and Costa Rica) were in the intermediate category among the 61 studied countries. In other words, of the 27 countries classified in the "A" category, that is, of the highest desire of equality, seven are Latin American, and the other three are in the intermediate category. There were 11 countries that would rather prefer a society that gave men more prerogatives (five of these countries are Islamic); none of the Latin American countries is among the eleven of macho mentality. Apart from this, the percentage of variation of the Latin American average is located at 3. 6%, indicating a clear homogeneity of values among them.

It is quite surprising, given the international fame of Latin American culture, that the managers have described of their countries as being within the normal average, and that they have such a defined orientation toward equality. This will probably be one of the factors of the quickest cultural change in the years to come. Some will say that this mentality of equality is the result of a pernicious influence of strange cultures that no longer distinguish among the sexes. This irony is somewhat worrying. The problem is not only in ideas, in what people think, but in the structural prevalence of discrimination factors or inequality. Anyway, the macho mentality in Latin American companies will probably a matter of the past and those managers that preserve this mentality will lose points, or else they will probably be history.

Assertiveness or aggressiveness (Masculine / feminine)

Hofstede differenced traditional masculine principles from feminine principles. The typicalcliché has been that men are more assertive, affirmative or decided, while women tend to be warmer, more preoccupied of giving to others and more concerned about interpersonal relationships. The author found that men were more pressed to advance in the hierarchy and to make more money than women, while for women the interpersonal climate, the possibility to serve or be useful and the physical workplace were more relevant factors. The 40 studied countries differ statistically due to their level of masculinity, which was worked out by the preferences about work objectives, that give more importance to wages and promotion than to interpersonal relationships, to providing a service than to the physical workplace. The level of masculinity does not only imply an acceptation of this difference but also a support.

At this point some differences were found between the seven Latin American countries studied 25 years ago, while four of them turned out with a high level of "masculine" principles regarding work, one turned out to be in the middle of the list and two at the end (low on masculinity). *The order of principles, from masculine to feminine is the following: Venezuela, Mexico, Colombia, Argentina, Brazil, Peru and Chile*. Hofstede noticed that three were organizations with "masculine" principles (e.g., industries), while others were more inclined toward "feminine" principles (e.g., hospitals). Countries high on masculinity also had a high need of achievement (or success) and sexes are separated during higher education; in Christian countries, this was correlated with Catholicism instead of Protestantism, with high traffic speed and mortal accidents (a higher tendency to risk).

The Global study tried to distinguish between societies where people are too aggressive, affirmative, strongly opinionated, assertive, dominant, and prone to recur to physical strength in order to solve differences of behavior and other less aggressive principles. For the world's traditional principles this has to do with masculine or feminine cultures: being tender, not very dominant, soft and not very aggressive, are related to the "feminine" way of being, while men are expected to be more aggressive, dominant with physical predominance and strongly opinionated. The managers' survey not only identified the perception they have of their current society but also, the degree to which they would prefer their society to be more or less assertive than it currently is.

Bolivia and Costa Rica were classified among the less aggressive countries of the world, but *most of the Latin American countries were classified slightly below the average (category "B")*. Only one of the Latin American countries ranked above the average on masculine assertiveness (El Salvador). In synthesis, 90% of the Latin American countries studied were described by their nationals as being below the average on assertiveness or cultural masculinity. The internal differences among Latin American countries are of 12%, as the variation coefficient indicates. Concerning how the Latin American interviewed managers want their society to be, the values are also in the "B" category, that is, they all would want a society relatively with more feminine values, less aggressive in comparison with the rest of countries studied by the Globe trial. Argentina, Brazil and Venezuela were in the "A" category, that is, those that wanted a much less assertive society; all the others are in the "B" category, the intermediate one. The calculation of differences among Latin American countries was that there is only a 11% variation (variation coefficient 0. 11). Although this is one of the variables that showed more variability, the data allow to conclude that there are not qualitative differences among them and that there is a relatively homogeneous culture in Latin America with respect to this.

Collectivism versus individualism

The Globe study found two different dimensions in Hofstede's collectivism-individualism variable, one variable referred to family values and loyalty to the group, the other explicitly referred to the contrast between socially individualistic or collective orientations. *Hofstede's study of Latin American countries had suggested an orientation of high collectivism, but the orientation was not distinguished sufficiently to the individual benefit above collective benefit* (or vice versa, in a society where people privilege collective benefit over individual advantages). The individualistic orientation of society was determined in the Globe survey by questions on these points: whether societal leaders still propitiated loyalty to the group even if the individual was harmed; whether the economic system of society was oriented towards maximizing the collective or the individual interests; whether society valued more group cohesion or individualism; whether being accepted by the members of a group was very important in that particular society.

The results indicate that an orientation toward individualism is perceived in Latin American countries, this contrasts with the international average. In effect, half of the countries are in the intermediate "B" category and the other half described itself as being in the category of more individualistic countries (Argentina, Brazil, Colombia, El Salvador and Guatemala). It is significant that the two groups of countries are not located in opposite categories (one half in "A" and the other in "C"), suggesting a homogeneous value of results, without contradictions between countries, as shown by a variation coefficient of 0.037. These results are interesting as Hofstsde's controversial data advance, since so many Latin American societies are not quite there when it comes to totally net collective principles. They could be in the family sense (as will be seen below) but not in privileging collective benefit over individual benefit, depending on where they are located with respect to the international average. Questions asked to the managers about how their society should be investigated the following topics: Should leaders favor group loyalty even if individuals suffer? Do you think your society's economic system should try to maximize collective benefits or individual ones?; Do most people in this society prefer group sports or individual ones? Do you think that it's better to be individualist or to stick to the group, in this society?; *Nine out of ten Latin American countries are among the ones in the world which most desire to be oriented* *by less individualistic principles and more collective responsibility*: they are among the 22 countries that prefer collective principles more strongly. Mexico is in intermediate category “B” and there are no countries in category “C” that would want a more individualistic orientation (among them Japan, the U.S.A., the Scandinavian countries, and some countries from Eastern Europe). The internal differences between the ten Latin American countries are minimal, of about 4%, which also supports the conclusion that there is homogeneity in Latin America.

These data clearly indicate dissatisfaction with the own county’s reality, which will probably lead to future social changes: from individualism to higher social responsibility. That curious paradox of countries with individualistic principles that at the same time have sensitivity and are worried about collective well-being (Triandis, 1995) can be the direction Latin American society is moving towards.

Family collectivism

Considering this variable, the study tried to identify the orientation toward collective principles in the relationship between parents and children and the importance of family in society. The Globe study measured the managers’ perception on: a) the degree to which children are proud of their parents’ individual achievements; b) the degree to which parents feel proud or their children’s achievements; c) whether elderly parents live with their descendants (instead of living alone or in a retirement home) and d) whether children live with their parents until they marry (regardless of their age).

The questionnaire on how collective social orientation should be, asked managers about their preferences on the following points: a) whether children should or shouldn’t be proud of their parents’ individual achievements; b) whether parents should feel proud of their children’s achievements; c) how important should it be for people in your country that people from another country see them in a positive way; d) how important should it be for the people of a country to feel proud of being from that country. The results are very convincing: *eight out of ten Latin American countries ranked among the ones with the highest collective family principles* and the other two ranked with principles above the average (Costa Rica and Brazil). Variations of average among countries in this sense are minimal, 3.6%. Regarding preferences on how society should be, results are even stronger: nine out of ten countries chose the highest principles of collectivism (in group "A" of 19 countries worldwide) and Brazilian Managers also would prefer that their society adhered to principles of collectivism, above the average (although not in the maximum category as the others). The coefficient of variation among Latin Americans turned out to be only of 5.9%, once again indicating homogeneity among Latin American countries.

Orientation toward the future

This scale was developed based on five questions from the questionnaire for describing current society and with four questions about what they would want to predominate in their country. It is about knowing whether in the surveyed managers' perception, their country is oriented towards the future and whether the criteria and principles are centered in the present or in the past. The five indicators on time orientation were the following: To be successful in this society, is it better to plan ahead or to take actions as things happen? Is the accepted rule in this society to plan toward the future or to take things as they come along? Are social events in this society planed ahead of time or do they occur spontaneously? Do most people in this society live for the present or for the future? Are most people in this society constantly solving the moment's problems or do they plan ahead to anticipate the problems that can turn up? (just as the ones above, the managers agreed or disagreed on the Linkert's 1 to 7 scale). *The answers indicated that nine of the ten Latin American countries are below the international average, two of them (Guatemala and Argentina) among the countries located in the extreme category of living the present*. Only Mexico ranked among those that are above the average but not yet belonging to category "A" (i.e., those countries that are qualitatively and significantly more future-oriented). No nationals from a Latin American country described their country as being among the future-oriented ones (category "A"). The coefficient of variation between the countries is 7.9%, confirming the conclusion that, in this aspect, there is cultural homogeneity in Latin America.

Questions intended to determine the surveyed managers' preference on the future principles that should rule their society touched the following topics: Do you think successful people should plan ahead or take life as it comes? Do you think the accepted rule in this society should be to plan ahead or to accept things as they are? Do you think social reunions should be planed before hand or just happen spontaneously? Do you think that people in this society should live for the present or for the future? *The results of wanting a future-oriented society are clear: all the Latin American countries ranked above the international average and furthermore, nine out of ten are in the "A" category, i.e., those located to one extreme of preference for social orientation toward the future* (and not the present). This is a factor of dissatisfaction and of cultural change, from a description of their society as excessively oriented toward the present, they would want future-oriented societies, at least among the managerial population. Without any doubt, there is cultural homogeneity as regards to this aspect in Latin America, which is confirmed by the variation level among the countries (3.9%).

Humane orientation

This variable tried to determine the degree to which a country's cultural principles support and award the people for being altruist, fair, compassionate, friendly, sensitive, generous, tolerant, and preoccupied by the well being of others. The high principles on the scale indicate a more humane orientation.

The quantitative survey was centered on five topics: Do people in your society usually care for others or they really don't care about other people? Are people in this society sensitive to each other or are they absolutely insensitive to each other? Are people friendly or not very friendly, in this society? Are people in this society tolerant with other people's mistakes or not? In this society, are people usually generous or not?

The results from the Latin American countries are close to the international average; seven countries are below the average (Brazil is in an extreme position of little humanitarianism) and three are above the international average (Venezuela, Ecuador and Costa Rica). The percentage of variation is of 7.9%, indicating that they are very concentrated and that there is no cultural difference between Latin American countries in their current humanitarian orientation.

The survey used four future orientation indicators was centered on questions about the following aspects: should the people of this society be stimulated to care more about others or not to care so much about others? Should people in this society be stimulated to be more sensitive to others or to not be so sensitive to others? Should people in this society be more or less friendly? Should people in this society be more or less tolerant? *The results indicate a definite preference toward more humane societies, all the countries being above the international average and three of them (Brazil, Argentina and Colombia) being in the extreme "A" category position*. The variation among countries is very small, 4.5%, confirming the homogeneity in Latin American countries.

Performance orientation

This variable was detached from McClelland's work on the needs of achievement, power of affiliating the world's cultures. It's about identifying to what extent are people oriented towards excellence, continuous improvement, obtaining outstanding performance and obtaining results.

The questions on the managers' surveys used to find out the orientation toward performance took into account the following points: Are students continuously requested to improve their school grades level? Do people in this society usually try to reach demanding or difficult goals? Are rewards in this society based on people's performance or on other factors? Does being innovative to enhance performance have substantial stimulation in this society or not? The results from Latin American countries are close to the international average, six are somewhat above it and four are somewhat below, but none of them is located in an extreme (all of them are "B" or "C" countries, none is located between "A" and "D"). The variation between countries is very low, as shown by the 7.2% coefficient; this indicates a cultural homogeneity in this aspect among the ten studied countries. The measurement of the preferences of society in terms of performance orientation, was based on similar points to those used to measure current orientation: Do you think students should be continuously stimulated to improve their performance? Do you think that the rewards and recognition in this society should be exclusively based on people's results and performance or should other factors be included? Do you think that being innovative to enhance performance should be substantially compensated, should have some compensation or should not be very compensated at all? Do you think people in this society should set themselves great and difficult-to-reach challenges? What these managers want for their countries is very strong and very defined: nine out of ten are on the side of those that want a high performance orientation and the other one is also above the international average. As can be expected, the variation is very small, 3.2%, *confirming Latin America's cultural homogeneity*.

2.4.4. Conclusions on Latin American Culture

What would the managers of the world want for the future of their countries? According to the Globe survey, it seems that there are some common principles that could be characterized as a particular ideology. Which are they and how do these international principles differ from the Latin American ones?

Seven aspects defined this international-manager-ideology. *First*, managers would want their countries to be governed by criteria of success, results, that outstanding performance had an important acceptance and that it was the parameter for social measure. *Second*, managers would want their societies to be more future-centered, that people postponed immediate gratification and thought more about what comes next: more savings and more planning. *Third*, they also want more humanitarian, generous, reliable, and altruistic societies. *Fourth*, managers would want a less individualistic society, where there is more teamwork, a strong family nucleus and more personal interest on collective well-being. *Fifth*, they also indicated aversion against elitist societies where the differences of status and power are very marked. *Sixth*, they don't want excessively aggressive societies either. In two aspects the managerial ideology that appears here has intermediate principles, not too strong ones; *Seventh*, there is a preference for man and women being treated equally and a balance between having a society too full of rules, where every thing is foreseen and a society with tolerance due to ambiguity and a space to experiment and innovate. These data do not describe countries; they describe what the managers wish their countries to be.

In general, Latin American countries are not an exception to the preferences above, but there are some differences that are noted below. When Latin American culture is compared to the culture of other regions of the world is found to be different. Later on the study differences it from what is wanted in other regions of the world, a comparison is made between what Latin American managers want and what their counterparts in the

rest of the world want. The study points out the main differences between the managers' perception of reality and what they would want to happen in their countries.
Latin American culture turned out to be sharply different from the international average regarding the following current characteristics:

A) Assertiveness or cultural masculinity (this is not the same as equality among sexes), according to which, Latin American countries describe themselves as being among the "softest" and the most "feminine" in the world, this result is shared with Europe's Latin countries.
B) Regarding collectivism-individualism, both European and American Latin countries and America were found to be the most individualistic in the world.
C) Regarding a high tolerance for ambiguity, Latin Americans and East Europeans live under the most uncertain conditions.
D) Regarding performance orientation; East European and Latin European and American countries are the least orientated toward high performance. E) Regarding orientation toward the future, the same result as the above was obtained; Latin countries from America and East Europe are the ones with the least orientation toward the future.

The study also indicated that the managers wanted their culture to be what it may and the following aspects turned out to be very different from the international average:

A) Latin American managers very much want that people of their countries had a higher orientation toward collectivism, toward the group, to be less individualistic. The two regions of the world that ranked highest in their desire toward a collective orientation were Latin countries from both Europe and America.
B) They also prefer a high orientation toward family collectivism and loyalty to the group, an item shared with Anglo-Saxon countries (this is the biggest difference between their reality and what Anglo-Saxons would want, because from the description of their societies this is noticeably the region of the world with the least orientation toward family collectivism).
C) Regarding distance to power and degree of elitism, Latin Americans strongly want to have more egalitarian societies; on this point they coincide with Latin Europe and the Germanic countries.

D) Regarding Performance orientation, Latin America is the region of the world that wants the most excellence- and result-oriented societies.

Latin American societies obtained results close to the international average in the other variables studied at Globe, such as family collectivism, distance to power or degree of elitism, equality among sexes and humane orientation. Latin American managers also expressed the desire of their societies being more like the international average countries in the following aspects: assertiveness or masculinity, avoidance of uncertainty, equality among sexes, orientation toward the future and humane orientation.

The main differences between reality and what their societies should become are as follows:

a) An orientation toward collectivism (as opposed to individualism) in the international average; there is a strong desire for Latin American societies to be more group-oriented, that people be more responsible and collective-wise.
b) Elitist societies with sharp differences of power; Latin American managers would want egalitarian societies.
c) Societies where there is much uncertainty; they would want more structured societies, with less setbacks and improvisation.
d) The surveyed managers would prefer sexes to be equal, after Germanics and Anglo-Saxons, they are the ones that want this the most.
e) An orientation toward performance classified on the international average; they would want societies with net results and excellence criteria.
f) Societies oriented toward the present;they would want their societies to be oriented toward the future.
g) Societies on the average of humanitarian orientation; they would want societies more aware of the needs of others and somewhat more caring about the well-being of others. This lack of satisfaction or differences between what their societies are and what they want them to be will be a possible source of tension and cultural change during the decades to come for Latin American societies.

In other words, *the study identified nine cultural characteristics of ten Latin American countries*; they were compared with each other and with the rest of the world. *The study's most important discovery is the relative cultural homogeneity, both on their description of current reality and of what they want their principles and orientations to be for their people*. We can also identify the differences between principles in other regions of the world and the lack of satisfaction of Latin Americans regarding their current situation. What remains to be done next is an analysis on the Latin American managers' implicit leadership theory.

Organizational leadership

In this investigation, leadership is defined as follows: "the capacity of a person to influence, motivate and authorize others to contribute toward the effectiveness and success of the organizations of which they are members". The variables regarding leadership were measured with respect to the description of the characteristics and behaviors that the managers consider as attributes of those people that are seen as leaders. The managers classified 112 behaviors or characteristics that can stimulate a person to have an outstanding leadership. The questionnaire asked them to respond based on their own description of "some people in their organization or industry that are exceptionally able to motivate, influence, to allow others or groups to contribute to the organization's success or achievement". The survey asked the managers to grade these characteristics or behaviors on a scale from 1 ("this behavior or characteristic considerably impedes the person from being an outstanding leader") to 7 ("this behavior or characteristic contributes considerably to the person being an outstanding leader").

The answers to the 112 items were statistically subject to systematic factual analysis, after which 21 scales or leadership variables were established, described on appendix 11. As with the culture variables, the 61 countries were ranked in "A", "B", "C", or "D" groups, according to the average of their scores, to distances of one (or more) standard deviation from this average. In other words, it was known in a comparative manner, in which countries the managers rated that variable or characteristic as extremely important to leadership (countries in group "A"), which rated it as above average (but not above one standard deviation, i.e., "B" countries), the ones that were below the average (group "C" countries) and those countries whose managers considered this variable or behavior was significantly less important or negative for outstanding leadership (the “D” countries, whose averages were more than one standard deviation below the international average).

Data from 61 countries was analyzed; we have the image of the international outstanding leader, which includes the nine aspects that contribute to that leadership: being a role model, having integrity, having a vision of which way to follow, being oriented to excellent performance, act as a good team worker, being decisive, managerially competent and diplomatic.

Internationally, behaviors such as being modest or even, sacrificed, humanitarian, status-aware, conflict introductory, independent or individualist and establishing procedures don’t have much impact. According to the international results for these factors, such behaviors as worrying too much about personal appearance, being autocratic, non-participative, self-centered and evil are considered to block, to a high extent, the path to become an outstanding leader.

When data from Latin American countries is examined (using ranks “A”, “B”, “C” and “D”) a lot of *homogeneity regarding the two dimensions that contribute to an outstanding leadership* is observed, as can be seen in appendix 6. Latin American countries agree that the aspects that contribute the most to leadership are to be performance-oriented, a team integrator, managerially competent, diplomatic, sacrificed and status-aware. Almost all (except Brazil) would add humanitarianism to the list and 8 out of ten (the exceptions being Mexico and Venezuela) would also include integrity, being inspiring and visionary among the characteristics that contribute to a person becoming an outstanding leader.

The scales that are referred to the characteristics that block the road to outstanding leadership reflect a much lower homogeneity than the scales prior to that one. Being a person that worries too much about personal appearance is something that blocks leadership in all countries except Mexico and Venezuela. The other scales –autocratic, non-participative, self-centered and evil, reflect a higher heterogeneity regarding the degree to which they consider these attributes to block leadership- in other words, it is a question of considering how bad this is for a leader, without ever considering these characteristics to be positive.

When comparing Latin America with the other regions studied, the following elements appear to be significantly overvalued by Latin American managers: *team-work orientation and being a good collaborator to the group* (this is the only region in the world that ranked in the "A" category in this scale), *excellent performance orientation* (together with Anglo-Saxons), *being managerially competent* (together with Eastern Europe), *being sacrificed* (together with India and other Asian countries, but not with countries where Chinese culture predominates) and *being status-aware* (together with countries from the Middle East). On the other hand, the difference turned out to be sharp with the other regions of the world in which Latin Americans consider the image of the individualistic and independent leader to be much less favorable than the other regions of the world (this is shared with Latin Europe and African countries).

Conclusions on leadership

As can be seen on appendix 13, the conceptions of the 1400 Latin American managers surveyed on organizational leadership does not differ excessively from those of other managers of the world. Latin Americans can be set apart from the rest of the world by their emphasis on the expectation of a teamwork-oriented leader, a good manager interested in high results, committed and aware of the different statuses in the organization. On the other hand, they have the lowest idea of the individualistic or independent leader, confirming their collective orientation to groups.

The results from the 21 leadership variables of the ten Latin American countries display a high degree of homogeneity: there are no countries located on opposite ends and, on the contrary, most are grouped around a common principle. On 15 of the 21 variables, the coefficients of variation have values below 10 % and the highest variation was of 18%, still considered to be indicative of homogeneity. *It can be concluded that Latin American managers have a similar conception of organizational leadership*. These data confirm those obtained with the 18 culture-related scales, which indicate homogeneity in both the perception of the current situation and the principles or preferences they wish their societies to be going to. In synthesis, these results indicate cultural and leadership homogeneity among the ten Latin American countries studied.

2.5. Case Study Method and Design

This empirical study taken into consideration several research methods. However, the case study was selected based on the principle that a case study answers important questions such as *How* (this question deals with the links needed to connect events in time), and *What* (this question implies the use of surveys or analysis of historical information). To answer these questions relationships were established from the statistical standpoint, considering the variables analyzed, and hence, their explanation level.

The case study method has been used to study strategic and organizational change by Beer (1990a) and other authors. The case study method fits in this dissertation regarding the process of formulating, implementing, and sustaining a fundamental change in complex organizations such as Central Banks, in the way that this dissertation represents events within the current reality.

2.5.1. Selection of Cases

According to Yin (1994), the selection of a case must consider the need to test a theory. In this sense, the case can be used either to confirm, challenge, or complement the theory. With the purpose of testing the strategic change matrix framework, the case study chosen for this dissertation is related to complex organizations that initiate fundamental changes in order to confront market forces.

According to Pettigrew (1990) and Bluedorn and Lundgren (1993), there is a huge value to studying visible cases. "Access to a publication of significant research results about an elite institution can have positive knock-on effects". At this point of the research for this dissertation I found that the case developed for Wal-Mart Stores has the depth of research needed to test the theoretical framework developed for this dissertation.

2.5.2. Limitations

Several limitations could arise for this empirical study. As a matter of fact, there are several limitations that are linked to a case study method. A problem that usually arises is the limitation in terms of the impossibility of taking the case to a statistical generalization. This means that it is not possible to apply this model to a universe of organizations. However, the study allows for an analytic generalization. According to Yin (1994), "when two or more cases support the same theory, an analytic generalization will be possible".

According to Yin (1994), case study researchers have allowed wrong evidences or biased views to influence the direction of the findings and conclusions. In this sense, it would be another limitation of the case study method. It is important to remark that the case study presented in this dissertation have the objective of presenting the evidence in a way the reader is able to judge whether the findings and conclusions are accurate or not.

2.5.3. Research Procedures (How)

This author selected the case study of Wal-mart Sores after several weeks of research regarding the bibliography available in recognized universities such as the Carlson School of Management of the University of Minnesota, St. Thomas University, and several libraries nationwide and worldwide. The case in mention meets the conditions for testing the theoretical framework and, specifically, the integration of the theories into the strategic change matrix. I took the relevant information and structured the case according to the objective of this dissertation regarding an Organizational Change proposed for the Central Bank of Colombia.

2.5.4. Wal-Mart Stores Case Study

2.5.4.1.Justification and Relationship within the Strategic Change Matrix

The Walt-Mart Store Case study was taken into consideration for this dissertation, because an organization like this has been able to foster innovation and change, two key aspects that explain the organizational success since 1988 and that are the backbone of the Strategic Change Matrix suggested by Orgland in 1994. Indeed, the Wal-Mart organization has used innovative approaches (Top-down Direction Setting) in areas such as employee, customer, and supplier relations; merchandising; distribution; and communications. In 1989 Fortune claimed that the Wal-Mart organization was one of the five most admired companies in the United States.

Another key aspect of the Strategic Change Matrix suggested by Orgland in 1994, is open communications - upward, downward, and lateral – that typify the Wal-Mart organization. Both individuals and organizational subunits are granted as much authority as possible. The senior managers are delegated the authority and autonomy to manage their respective functions as they see fit, provided that they do so within the decision parameters set forth by the top management. Since Wal-Mart is such a large organization with a very loose organizational structure, the integration and coordination of functions are critical.

Creating a vision and being influenced by that vision form part of the Strategic Change Matrix, are two aspects on which Wal-Mart has been working for a long time in order to define very consistent and effective long-range policies and strategic plans.

A participative management style exists within all of the Wal-Mart organization. The top management of the organization, as a part of the change strategies, use to listen to suggestions, discuss improvements, and praise liberally for a job well done with the whole organization. This participative management style, in conjunction with the employee profit sharing and stock ownership plan, is one of the primary reasons why Wal-Mart has obtained the commitment of its employees that is so vital for long-term success. Moreover, concern for the individual, whether a customer or an associate, is the cornerstone of the Wal-Mart corporate culture. As mentioned above, concomitant with this concern for the individual is open communication.

The strategic Plan of Wal-Mart also has been focused on a combination of a decentralized and autonomous structure, and hence, to be a most flexible organization, as a strategy to respond much more efficiently to the market changes or even to the global economy.

Ongoing education and training and continuous process improvement are aspects that contribute the Wal-Mart success. As a matter of fact, the organization is highly committed to the purpose of having a low resistance to change, to be flexible and willing to adjust rapidly to stay abreast of the competitive environment. Wal-Mart believes that "in order to grow successfully, we must continually challenge and test new retailing concepts. We must constantly improve". As Wal-Mart progresses into this new century, it will undoubtedly face three main challenges - size, competition, and the changing leadership, that are related to Orgland's Strategic Change Matrix of 1994.

2.5.4.2.Introduction

After Sam Walton got out of the army at the end of World War II, he opened a Ben Franklin department store in Newport, Arkansas-that was in 1950. Nearly forty-five years later the descendant of this one Ben Franklin store Wal-Mart Stores, Inc., consists of 1,880 Wal-Mart, stores, 256 Sam's Wholesale Clubs, 25 Supercenters, and 13 McLane and Western Merchandisers Distribution Centers. The company went public in 1970 at a share price of $16.50. By the end of 1993 Wal-Mart was the largest retail organization in the United States. Sales that totaled $1.2 billion in 1980 soared to over $55.5 billion by the beginning of 1994. As seen in Figure 12, this phenomenal sales growth is well complemented by comparable growth in net profit, earnings per share, and dividends per share. *As is evident, Wal-Mart has been successful in accomplishing its overall strategic goal of maintaining continued, controlled, and profitable growth*.

Although Wal-Mart stores have traditionally been located in rural and semi rural areas in the South and Midwest, locations heretofore ignored by competitors such as Sears and Kmart, future expansion is planned for urban areas in California and the Northeast. David Glass, president and chief executive officer of Wal-Mart, said that there was no state in which he would not consider building a Wal-Mart store. International expansion has taken Wal-Mart into Canada and Mexico.

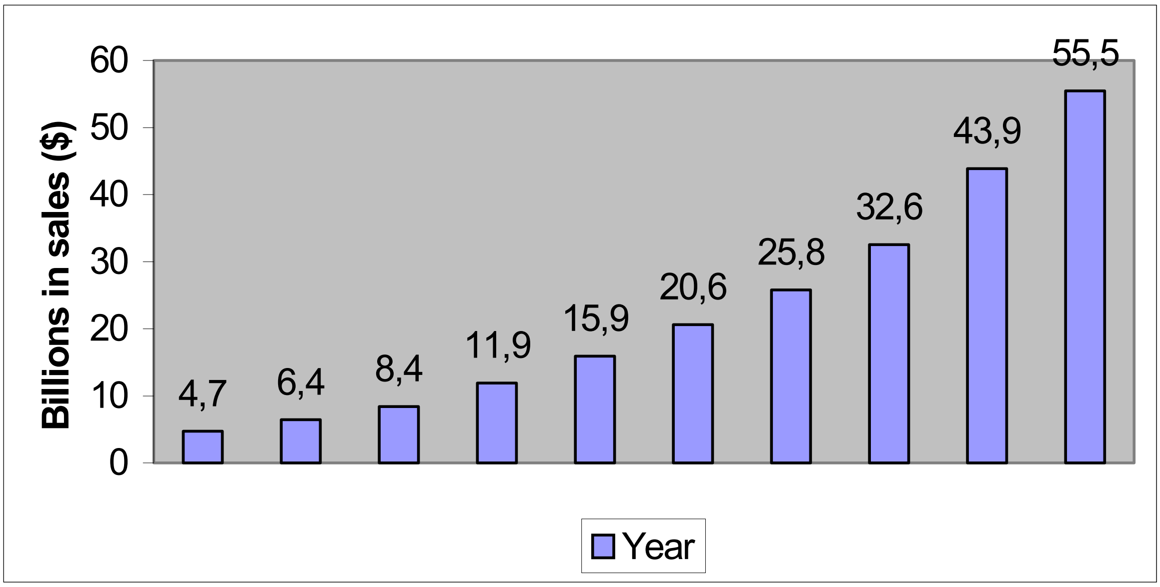

Figure 12 Wal – Mart Sales Growth

One key aspect of the Wal-Mart success story is the organization's willingness to foster innovation and change. Wal-Mart, Inc., opened DOT Discount Drug Stores in 1983, Helen's Arts and Crafts (named alter Sam Walton's wife) in 1984, and Hyper mart USA stores in 1987. New stores are not the only field in which Wal-Mart has experimented. As discussed later in this case, the Wal-Mart organization has used innovative approaches in areas such as employee, customer, and supplier relations; merchandising; distribution; and communications.

Wal-Mart stock is considered by Financial experts to be one of the nation's most valuable investments, and the story is often repeated how $4,700 (100 shares) of Wal-Mart stock in 1983 was worth more than $104,200 by 1993. Because Wal-Mart maintained an amazing 44 percent growth rate during the recession years of 1981 and 1982, most analysts claim that the company is recession-proof. In 1988 Business Month declared Wal-Mart one of the five best-managed companies in America while in 1989 Fortune claimed that the Wal-Mart organization was one of the five most admired companies in the nation.

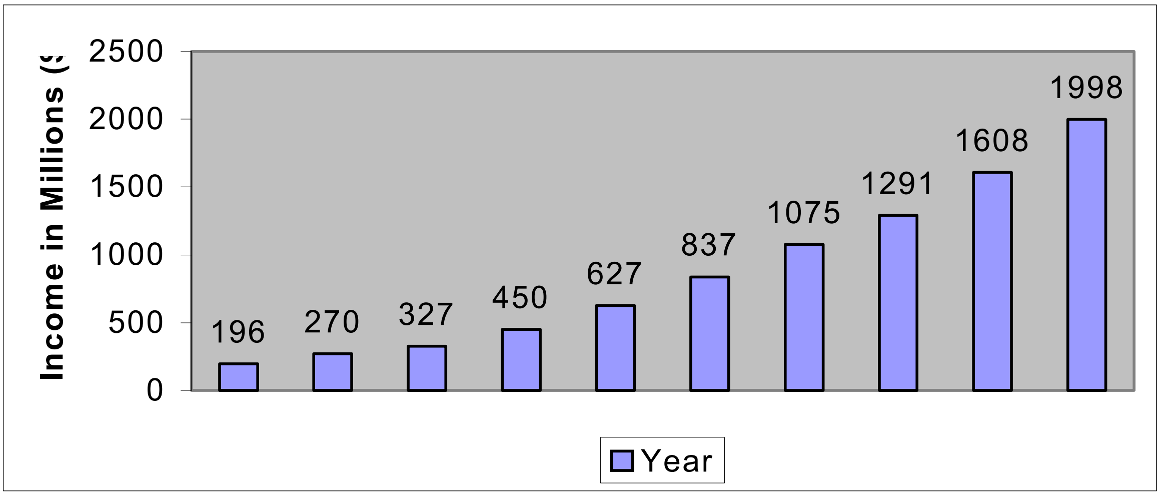

Figure 13 Wal – Mart Incomes

2.5.4.3.Organizational Structure

At the head of the organization sit the board of directors and the chairman of the board, S. Robson Walton. Sam Walton was the titular and official head of the organization until his death in 1992. At that time most of the power and authority had been delegated to the president and CEO, David Glass, and the vice chairman of the board and chief operating officer (COO), Donald Soderquist. After Sam's death, his assets were distributed among his family. However, Glass and Soderquist basically share power and authority in running the Wal-Mart "empire". As president and CEO, Glass is primarily responsible for effecting long-range policies and strategic plans while Soderquist as COO is responsible for administering the organizations day-to-day operations.

Board members also serve on various committees that play integral roles in running the corporation. For the purposes of this case, *the most important group is the executive committee, which is charged with executing the decisions made by the board of directors*. Walton, Glass, Soderquist, and four other directors, comprise this very powerful decision-making body. Other executive committee members include the executive vice president and chief financial officer, Paul Carter, and the senior vice president James L. Walton.

Although the Wal-Mart organization lists its senior officers in its annual report, the reporting relationships and communications channels are deliberately not depicted.

According to the public affairs department at Wal-Mart headquarters, the company chooses not to have an organization chart because such a chart would tend to depict rigid relationships that, in fact, do not exist. *Open communications - upward, downward, and lateral - typify the Wal-Mart organization*. Both individuals and organizational subunits are granted as much authority as possible. Because the senior managers within Wal-Mart are considered some of the most respected in the discount store industry, *they are delegated the authority and autonomy to manage their respective functions as they see fit, provided that they do so within the decision parameters set by the executive committee*.

The senior manager positions an incumbents at Wal-Mart Stores, Inc, is shown in the figure below. The reader should know that the term operations, which refers to many positions within the senior managerial ranks, refers to regional operations. Thus, each vice president for operations is a regional vice president to whom individual store managers report.

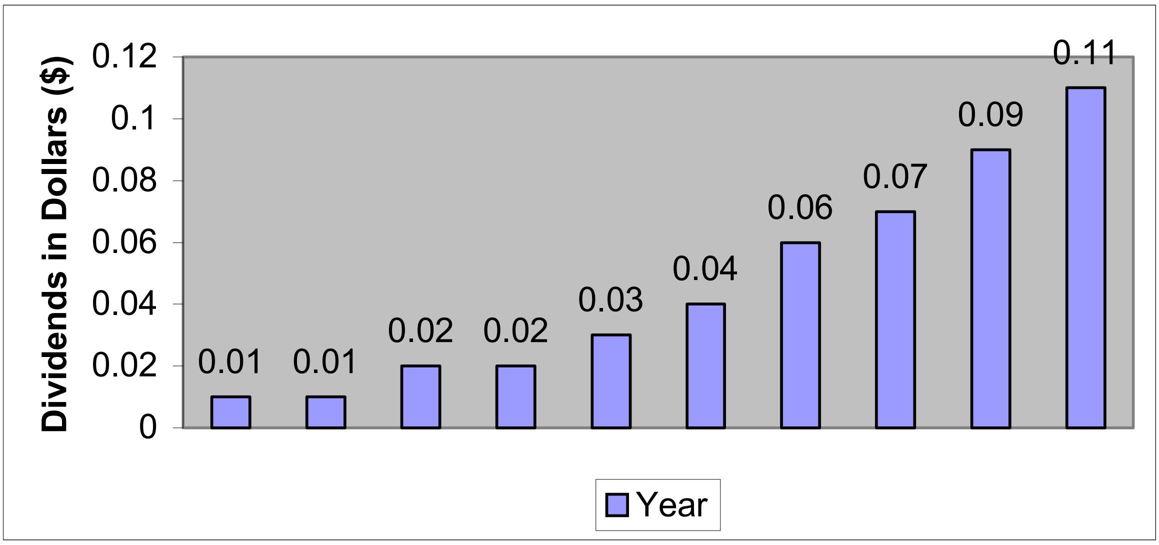

Figure 14 Wal – Mart Dividends

Because Wal-Mart *is such a large organization with a very loose organizational structure, the integration and coordination of functions are critical*. At the senior level, integration and coordination are partially accomplished by senior managers 'visits to the local stores where operations are observed; questions are asked; suggestions are elicited; and so on. At the Bentonville, Arkansas, headquarters it is extremely rare to rind even one-half of the senior managers present because most of them are in the field. On

Saturdays, senior managers meet with Chairman Walton at headquarters to discuss the previous week's activities and discuss future plans. Also, some lower-level managers are invited to make presentations about a particular merchandising tactic, new products offered, the success of a particular store, and so on. Generally, the range of topics covered at the Saturday meetings includes, but is not limited to, weekly sales, reports on new store construction, distribution center operations, product mixes, and functioning of company information systems. In short, senior managers' visits, combined with the Saturday meetings, do a good job in keeping everybody up-to-date on Wal-Mart activities.

Store visits and Saturday meetings, however, cannot provide the total integration necessary for such a large company. An extremely, thick corporate culture, combined with the latest information technology, ensures that all Wal-Mart operations are tightly coordinated on a day-to-day basis.

2.5.4.4.The Wal-Mart System

In addition to structure and culture, which are discussed under subsequent major sections of this case, the Wal-Mart system can be analyzed in terms of (1) types of stores; (2) the distribution network; (3) suppliers; (4) exemplary customer service; (5) communication technology; (6) merchandising and product mix; and (7) employees.

Type of stories

Wal-Mart Stores, Inc., though renowned for Wal-Mart stores, actually consists of four types of retail outlets. (Helen's Arts and Crafts stores were sold in 1988.)

1. Wal-Mart Stores. These stores range in size from 30,000 to 110,000 square feet and are organized into thirty-six departments that offer a wide variety of merchandise, including clothing and shoes, curtains, fabrics and notions, house wares, hardware, electronics, home furnishings, small appliances, automotive accessories, garden equipment and supplies, sporting goods, toys, cameras, health and beauty aids, pharmaceuticals, and jewelry. The average Wal-Mart store stocks between 70,000 and 80,000 items.

2. Sam's Wholesale Clubs. Sam's stores range in size from 68,000 to 130,000 square feet and are located primarily in urban areas. Sam's are membership-only cash and-carry operations. These stores offer bulk sales of name-brand hard-good merchandise, some soft goods, institutionalize grocery items, jewelry, sporting goods, toys, and tires. The overall objective of Sam's Wholesale Clubs is to maximize volume and turnover and to minimize overhead expenses.

3. Hypermat *USA These extremely large stores average 220,000 square feet. Hyper marts are new on the retail scene and are known as the "malls without walls", supporting peripheral businesses such as hair salons, shoe repair facilities, and health food stores. Approximately one-third of the products sold at Hypermart USA are grocery items. Big-ticket items, such as furniture, are also offered at Hypermart USA stores. In addition, these stores carry many more hard-good and soft-good inventory, as well as brand name clothing, than do the traditional Wal-Mart stores. Two Hypermart USA stores are joint ventures with Cullum Grocers.

4. Super centers. These stores, which range in size from 95,000 to 150,000 square feet, are a hybrid between a traditional Wal-Mart store and a supermarket. These Super centers carry a narrower grocery assortment than do the Hypermart USA stores; thus, they are serviced by Wal-Mart's own distribution system while the Hypermart USA's must be serviced by external distributors because of the large array of grocery items they carry. There are currently twenty-five Super centers in existence, and if they continue to be successful with gross profit margins of 17 to 18 percent, it is possible that some Wal-Marts will be expanded into Super centers. The recent addition of a complete deli, fresh bakery, and complementary convenience shops, such as portrait studios, dry cleaners, optical shops, and hair salons, make these Super centers truly a one-stop center.

Distribution

Wal-Mart's distribution subsystem is perhaps the most efficient and effective in the entire retail industry. Using the concept of backward integration, Wal-Mart first builds a distribution center in a rural or suburban area. After the distribution center is constructed, thirty to forty Wal-Mart entities are constructed within a 600-mile radius (although each center is capable of servicing 150 Wal-Marts, Sam's, and so on). Wal-Mart then uses its own fleet of trucks to deliver merchandise to the various stores. For example, at the Cullman, Alabama, distribution center, 1,042 employees work under a twenty-eight-acre roof. Each day approximately 150 outbound trucks are loaded with merchandise for the various stores while approximately 160 inbound trucks from suppliers are unloaded. The immensity of such a center is evidenced by the facts that there are 11 miles of conveyer belts and 190,000 cases of merchandise within each structure. Because all stores serviced by an individual center are within a 600-mile radius, store orders are processed and delivered within a day.

Logistics, distribution centers, and transportation-the Wal-Mart distribution team - are the keys in Wal-Mart's ability to remain competitive. The twenty-two centers, averaging almost 1 million square feet, received and shipped 769 million cases to the stores in 1993. The private fleet permits customized, cost-efficient accommodating peak seasonal periods, night deliveries, and accelerated delivery. The 2,500 drivers and 16,000 distribution associates hard work and commitment to continuous improvement make this investment in centers and equipment pay by improving the in-stock position of the stores and making just-in-time inventory management a reality.

Suppliers

A large retail organization such as Wal-Mart is, of course, one of the largest corporate buyers within the United States. The Wal-Mart organization has recently received a tremendous amount of positive publicity concerning its "Buy American" program. Besides the patriot aspects of this program, it enables Wal-Mart to secure required quantities of goods at the lowest prices. Wal-Mart has literally saved many small American concerns from going under with this program because, until they started to do business with Wal-Mart, foreign competitors both in price and quality were beating them. In 1992, Wal-Mart challenged Kalikow Brothers, a long-time vendor-partner, to move production of a popular men's shorts back from the Orient to the U.S. By working together, they were able to relocate the manufacturing to a plant in Lake Butler Florida. Over 125 jobs were added. A second plant has been rejuvenated in the process. Likewise, cooperation allowed a maker of ladies' foundations to bring production back from Haiti and Jamaica.

Wal-Mart works with its American supplier setting up product specifications and design and ensures the supplier that it will buy enough products to keep the supplier in business. Conversely, the supplier guarantees delivery and low price. We should add here that Wal-Mart is renowned in the retail industry for its speedy payment of supplier invoices. Unlike other large corporate buyers, Wal-Mart does not deal with independent factory representatives; rather, the organization insists on dealing directly with manufacturers' own sales forces. This policy, although unpopular with the thousands of self-employed manufacturers' representatives, saves both Wal-Mart and its suppliers millions of dollars because sales commissions are not paid to independent representatives. Of course, Wal-Mart does buy goods from foreign manufacturers if American manufacturers are incapable of matching price and quality.

Customer Service

Wal-Mart is committed to providing the best customer service in all of retailing. Because of its distribution system and supplier relations, customers have the items they want when they want them. Merchandising and distribution experts within the Wal-Mart say-identify those items most continually in demand so that they are made part of the basic stock in both the distribution centers and individual stores.

Courtesy and service to the customer are trademarks of the Wal-Mart organization. Upon entering the store each customer is amicably welcomed by an official greeter, usually a retired person. As stated in the Wal-Mart Pledge at the beginning of this case, any employee will stop what he or she is doing to help a customer. And, unlike many of its competitors, Wal-Mart boasts having the fastest check-out service of any retail organization. To best serve the customer, Sam Walton stressed (and his associates continue to stress) the importance of scanning the economic component of the external environment, through this scanning process, consumers, spending habits can be forecast and translated into merchandising commitments. Sam Walton stated it best, sell to the customer what they want to buy. With the changing demographic patterns in the U.S., it will become increasingly more important to know your customers (allot your assortments to fit their needs and sell them what they want to buy).

Communications Technology

State-of-the-art communications technology links together all facets of organizational life at Wal-Mart. Indeed, one could say that Wal-Mart is "married to technology." For example, right after the Saturday morning senior-level management meeting in Arkansas, executives often relay vital information to stores via the company's six channel communications system. This system, linked to a mainframe computer, is capable of gathering store data on a daily basis, handling credit card transactions, keeping tabs on inventory, and so on. Within the distribution center, laser scanners to ensure that the right product goes to the right location in the right quantity read bar codes.

Merchandising and Product Mix

When customers walk into a Wal-Mart, Sam's, or Hypermart USA, they see a tremendous amount and variety of merchandise for sale. In general, the merchandise available is a mixture of heavily discounted name brands and even lower-priced off brands. Wal-Mart believes in experimenting with new products or merchandising techniques at a few locations before adopting them throughout all stores. The new product sales and/or merchandising techniques are carefully monitored, and should they prove successful, they are then implemented at the other stores.

Since the mid-1980s, Wal-Mart has expanded and upgraded the product mix in its stores to include stereos, televisions, microwave ovens, telephones, and other hard goods. To expand its camera operations, Wal-Mart purchased a film processing plant in 1981. Because Wal-Mart believes in allowing some autonomy at the store level, store managers have the authority to buy and sell merchandise that reflects consumer preferences in a given area. Examples include crayfish pots in Louisiana stores and school logo items in stores that are located near colleges and universities. Wal-Mart aims to keep shrinkage at around 1 percent while other retailers typically settle for between 3 and 5 percent. Wal-Mart aims to continue operating as a small company, affirming that every associate is vital and key to the collective success. In 1993 Wal-Mart reduced the operating, selling, and general and administrative expenses as a percentage of sales to 15 percent.

However, the recent ruling that Wal-Mart engaged in predatory pricing could damage its reputation. On October 12, 1993, Judge David Reynolds of Faulkner County Chancery Court in Arkansas found against Wal-Mart for selling items below cost in an effort to drive competitors out of business. Wal-Mart was ordered to stop the practice and to pay about $300,000 in damages to three pharmacies in Conway, Arkansas. Wal-Mart maintains the judge's interpretation of a 1937 state antitrust law that prohibits “trade for the purpose of injuring competitors and destroying competition” The trial court misunderstood the legal principles that distinguish a lawful attempt to compete from an unlawful attempt to destroy competition. Wal-Mart is appealing the case in federal court, trying to overturn the state law as unconstitutional.

This is only the beginning of legal woes for Wal-Mart and other mega retailers. In the first congressional probe of the retailing phenomenon that is changing the local markets nationwide, mega stores were derided for everything from crushing local competition to altering the product distribution chain. Representative John LaFalce (D, New york), chairman of the House Small Business Committee, aims to explore the following three routes toward protecting small business from the super chains:

1. Increase publicity about expansion of the mega stores;
2. Curb federal money, such as industrial revenue bonds, that goes toward retail development; and
3. Ensure that federal antitrust and banking laws are tough enough and are enforced.

Morrison Cain, vice-president of the International Mass Retail Association, countered with a defense that the big stores seized on technological advances in distribution and logistics, such as checkout scanning, sophisticated inventory processing systems, direct store-to-warehouse and store-to-vendor communications, and just-in-time delivery. To aid the small businesses, Cain suggests that they sell items not carried by the giant discounters, refocus on upscale merchandise, improve store marketing and image, price competitively, and emphasize services that discounters do not provide.

Employees

No analysis of Wal-Mart would be complete without a discussion of its employees. All 434,000 Wal-Mart employees are referred to associates, a term that Sam Walton instituted because it implied ownership. Associates are, indeed, owners because each is entitled to participate in a profit sharing and stock option plan, the benefits of which increase as the employees length of service increases. For example, after two years' service, the company partially contributes to the stock ownership plan; after three years' service, the company pays for all the stock ownership plan; and after seven years', the employee becomes completely vested, that is, the stock is his or hers outright even if he or she quits Wal-Mart.

A participative management style exists within all Wal-Mart stores. Store managers spend a considerable portion of each day walking around the stores and talking with associates about a variety of matters. *The managers listen to suggestions, discuss improvements, and praise liberally for a job well done*. Wal-Mart has been fortunate in obtaining a steady stream of innovative ideas from its associates. It is common within Wal-Marts to have task forces, consisting of both managers and hourly associates, to evaluate new ideas and plan for future store operations. *This participative management style, in conjunction with the employee profit sharing and stock ownership plan, is one of the primary reasons why Wal-Mart has obtained the employee commitment that is so vital to long-term success*.

International

Mexico has been profitable but, just as importantly, a tremendous learning experience. In the joint venture with Cifra, Mexico's largest retailer, Wal-Mart presently has three Club Aurreras, four Bodegas discount stores, and one Aurrera combination store. Calendar 1993 and 1994 plans called for aggressive expansion of these operations plus the introduction of the first Super center in Monterrey and Mexico City. In 1993, Wal-Mart acquired 100 PACE units (to become Sam's Clubs) and 112 Canadian Woolco stores, thus expanding its domain into Canada at a rapid pace. Wal-Mart is also hedging its bets in Mexico. In October 1994, Wal-Mart announced it would participate in a venture between Dillard Department Stores, Inc., and Cifra SA to open Dillard stores south of the border. This relationship allows Wal-Mart to benefit from the high-end, name-brand apparel that it does not normally stock in Wal-Mart stores. This is one area in which Wal-Mart, for all its strengths, is weak.

Environment

Wal-Mart knows that it can make a difference in combating environmental challenges pollution, global warming, overpopulation, waste of resources, and others. In partnership with vendors, Wal-Mart now prints all its circulars on recycled paper. Each year it buys more products made of recycled materials and challenges the vendor-partners to find alternatives that are more environmentally friendly. The customers can also help. Therefore, Wal-Mart is collecting motor all, batteries, and establishing neighborhood recycling centers, often placing bins in the store parking lots. Wal-Mart has sponsored such programs as "Kids For A Clean Environment." In 1993, this international organization had over 30,000 members in local clubs across America. As an ultimate goal, Wal-Mart is opening a unique store in Lawrence, Kansas. It was designed to be environmentally friendly in every way possible. It will serve as a working laboratory for students and become a dynamic experiment in testing new environmental ideas.

2.5.4.5.The Wal-Mart Culture

Concern for the individual, whether the individual be a customer or an associate, is the cornerstone of the Wal-Mart corporate culture. Concomitant with this concern for the individual is open communications. Each store has a Friday morning meeting at which an associate at any level can pose questions and receive answers on subjects such as sales, costs, freight charges, and profit margins. Indeed, there are few corporations that willingly provide this information to their low-level employees. *Promotion to the managerial ranks is often based on performance* (although Wal-Mart does hire managers away from competitors or directly after graduation from college). Departmental sales Figures are posted weekly, and individuals in departments that regularly outperform the national Wal-Mart average are eligible for bonuses, raises, and promotions.

Wal-Mart's slogan, "Our people make the difference," is more than rhetoric. Chairman Walton firmly believed that by treating associates with respect and by showing them that he (and his senior managers) cared, they would perform with the highest levels of efficiency, effectiveness, and commitment to the organization. Wal-Mart's culture, in combination with its decentralized and autonomous structure, makes it a most flexible organization. Company officials publicly stated, "*We must have a low resistance to change, we must be flexible and willing to adjust rapidly to stay abreast of the competitive environment. We believe that to grow successfully we must continually challenge and test new retailing concepts. We must constantly improve*".

One cannot overestimate the role of Sam Walton on the development of this most remarkable corporate culture. Although he was a multibillionaire, Sam Walton was a very down-to-earth person - he drove a 1984 Ford pick-up, lived in a modest house, and went quail hunting, his favorite pastime. His workweek was normally six days long and included his attendance (in the role of cheerleader) at the Saturday morning senior-level management meetings. During the week Walton traveled to various Wal-Mart entities throughout the South and Midwest where he could be found greeting customers, stocking shelves, or running a cash register.

Walton was an inspiration to his associates, and they often felt as if they worked for Sam Walton, not Wal-Mart Stores, Inc. As one popular journal describes the energetic chairman, “He's a little bit Jimmy Stewart, handsome with halting, jaw shucks' charm. He's a little bit Billy Graham, with a charisma and persuasiveness that heartland folks find hard to resist. And, he's more than a little bit Henry Ford, a business genius who sees how all parts of the economic puzzle relate to his business”.

Impact on Rural America

Not all has been rosy for Wal-Mart. Its expansion into the American Northeast has hit a wall of rural resentment. As Wal-Mart attempted to roll out its franchises, it was accused of sucking commerce off "Main Streets", thereby destroying traditional retailers that had served their communities for generations. Wal-Mart's counterargument was that the abundance produced in the form of more jobs, consumer savings, and expanded trade more than offset the loss of "Main Street" life and that it seemed an incidental price to pay. Some particular examples follow. In 1991, after Wal-Mart announced that it was entering Maine with twelve stores, the Bath, Maine, Chamber of Commerce split into two factions - one for and one against the giant's entry. The splinter group decried that "Wal-Mart is a threat to every small business in Bath. That's not to say it's going to put everyone out of business, but there are certain things you have to do or else it'll kill you".

Wal-Mart's muscle helped repeal the "blue laws" in Maine that prevented major retailers from operating on Sunday. Now the local merchants must match Wal-Mart's time-and-a-half pay and extend their operating hours to compete. This adversely affects the local way of Sunday-life, which is filled with churchgoing and ice fishing. Wal-Mart did succeed in opening several stores in Maine. However, on top of the initial resentment, it experienced operating problems. It had trouble paying' bills as regularly as the company prides itself on doing, and employees were dissatisfied when they were sent home early or laid off in order, to control costs. Even when a new store was successfully planned, failure still followed. For example, after being granted a commercial zoning approval in the summer of 1992 by Greenfield, Maine, the town council was petitioned by residents to put the zoning issue to a referendum. The referendum ultimately reversed the zoning approval.

Several attempts to soothe ill feelings met with little success. Ken Stone, a professor of economies at Iowa State University, who specializes in retail trade and rural development, is the keenest student of Wal-Mart. In the spring of 1992, he attempted to advise the downtown merchants not to compete directly with Wal-Mart, but rather to specialize and carry harder-to-get and better-quality products; emphasize customer service; extend business hours; advertise more; and work together. Wal-Mart followed suit with its own sponsor. In the summer of 1992, Wal-Mart sent Don Shinkle, vice president of corporate affairs, to Maine for two weeks to soothe groups of local merchants. Neither Stone nor Shinkle were very successful.

Wal-Mart had even less "success" when it entered Vermont. Twice between 1990 and 1994 Wal-Mart failed to gain appropriate zoning approval for stores in St. Alban's, Vermont. The city's anti-Wal-Mart campaign is being led by John Finn, a former state senator, who claims, "We're going to keep fighting the buggers. The big fear is the view that Wal-Mart has become a metaphor for the larger commercial culture that is clearly alien to a state whose greatest contribution to retailing is the gift shop and whose most successful foray into American big business has been Ben and Jerry's, the iconoclastic ice cream maker. Vermont has one of the most stringent land-use laws in the country. Any large project, the law states, must not only be approved at the local level, but must also be evaluated by a district commission on ten criteria. Couple this with an attitude of "big is bad" and an environment in which an honest-to-goodness socialist can still win elected office, and it is obvious why Wal-Mart is having trouble. Even the marketing firm Claritas, which breaks down consumers into dozens of distinct groups based on tastes and demographics, says that Vermont is home to the country's largest concentration of what are called New Ecotopians. They are consumers with above-average education who are technology-oriented and civically active. They are more likely than other Americans to make bread from scratch, drive a jeep, watch the Learning Channel and read Outdoor life and American Health. Nationally, New Ecotopians make up 1 percent of the population. In Vermont, they make up 20 percent. In an effort to make tentative peace in its continuing battle, Wal-Mart is making hero efforts. It has proposed dropping its standard mega store-on-the-edge-of-town approach and instead building unusually small stores in appropriate downtown locations. Wal-Mart continues to battle such slanders as "sprawl-mart," which was levied by the National Trust for Historic Preservation after the organization declared the entire state to be endangered. Don Shinkle, vice president, responded in the letters-to-the-editor section of the Washington Post, "Wal-Mart started in small-town America, and because of this, will always strive to uphold the values and traditions of small-town America. 'The Vermont governor offered to assist in accelerating the permitting process if Wal-Mart proves to be sincere in its proposals.

In another state, Wal-Mart continued its efforts. In the Massachusetts town of Westford, the battle has been brewing since the spring of 1993. On one side is a group of residents sporting red T-shirts proclaiming, "STOP WAL-MART." The thirty member anti-Wal-Mart committee is worried that local merchants will be forced out of business. So far, 4,000 people (of the 9,000 voters) have agreed with them. Wal-Mart has been bending over backward to gain acceptance. It went so far as to hire a biologist and station him at the construction site to ensure that migrating tree frogs can get to a breeding pond behind the proposed building." Even this didn't help, and Wal-Mart eventually canceled its attempts to build a store there due to intense organized opposition by what it felt was a small, but obviously vocal, group of individuals.

Both sides have data to back up their positions. The proponents state that Wal-Mart enhances existing merchants due to a spillover effect that brings more business to the area. The opponents worry that Wal-Mart drives the locals out of business because the small-guy can't compete. In a study of the effect of Wal-Mart on Iowa towns, local businesses had higher sales due to increased traffic and the spillover effect. Conversely, when looking at sales of small specialty stores, another study found a loss of market share ranging from 2 to 44 percent.

2.5.4.6.Future Challenges

As Wal-Mart progresses through the 1990s, *most analysts and observers believe that it will face three main challenges - size, competition, and the changing leadership*.

Size

Wal-Mart has recently entered into heretofore "virgin" territory. Its stores have spread into California and the Northeast. In 1993, it earmarked $3 billion for capital expenditures to support 110 new discount stores, 20 Sam's Club additions 5 Super centers, and 4 distribution centers. In addition, the company will expand or relocate 70 discount stores and upgrade another 65 to the Super centers format. Sam's plans for calendar 1993 included a record 65 new clubs and 20 relocation or expansion projects. Reconfiguration and new club prototype designs are planned as well. Major emphasis is being placed on better understanding the merchandise needs of the business members and improving member service along with creating a new level of excitement in merchandise presentation. Wal-Mart stores' expansion broadened coverage to 45 total states, adding Connecticut, Idaho, Maine, Massachusetts, Montana, Oregon, and the territory of Puerto Rico. Future expansions will target Hawaii, Rhode Island, and Washington.

Communications must be enhanced as Wal-Mart opens new stores and enters new territories; that is, new stores should be linked immediately to the mainframe and satellite systems that currently connect all stores to the Arkansas headquarters. As Wal-Mart reaches saturation levels in urban areas, it will have to focus on rural areas. If the experience in the Northeast is any indication of the future Wal-Mart will have to vary its strategy.

Competition

Wal-Mart has been most successful in dealing with and beating its competition. It is now the world's largest retailer.

As a result of its successes, Wal-Mart's competitors have implemented new policies that promise to increase their market share. For example, Sears turned to a policy of "Everyday Low Prices," included name brands in its merchandise array, overhauled its distribution system to make it more efficient, lowered its overhead costs, and cut back on its huge bureaucracy.

Kmart, the other main competitor, has upgraded its merchandise appearance, and advertising efforts and aggressively cut its prices to keep Wal-Mart from encroaching upon its market share. In addition, Kmart has decided to join the high-tech age wit its own computer and satellite system. Former Chairman Antonini of Kmart claimed, "Our vision calls for the constant and never-ceasing exploration of new modes of retailing so, that our core business of Kmart stores can be constant renewed and reinvigorated. To compete directly with Wal-Marts Hypermart USA stores, Kmart entered into a partnership agreement with Brunos supermarket chain to form markets to be called American Fare. However, Kmart has struggled to keep up.

Change in Leadership

Throughout its amazing history, Wal-Mart Stores, Inc., has thrived under the leadership of its founder, Sam Walton. Regarding Sam Walton's departure, CEO Glass commented, There's no transition to make because the principles and the basic values he used in founding this company were so sound and so universally accepted. Although this is true, Sam Walton was the rudder of the Wal-Mart ship, and he appeared on the cover of every major business publication at least once. Moreover, Sam Walton epitomized the American dream in a way that other famous entrepreneurs, such as Donald Trump, Ted Turner, and Leona Helmsley, do not. Walton's personality and his connection to Wal-Mart are parallel to the way that Walt Disney's persona is connected to his company. After Disney's death in 1966, his company floundered for many years until it was revitalized in the mid-1980s by the new chairman and CEO Michael Eisner. So far, Wal-Mart seems to be avoiding a similar decline.

There is no doubt that Wal-Mart is one of the preeminent retailing organizations in the United States, if not the world. If it can continue to usher in new ideas and maintain the heralded royalty shown by both customers and employees, the organization could thrive well into the twenty-first century. Growth and size, however, should not become ends in and of themselves. In the words of Sam Walton, "Being number one would be nice, but we are more concerned about continuing to do what we do best and to be the best at what we do". S. Robson Walton, Sam Walton's replacement, has reiterated the small town philosophy. “Our commitment to be the low cost provider of merchandise to our customers has never been greater . . . Our focus has been to take care of our customers, take care of one another by treating folks as they want to be treated, embrace innovation and change, and then address growth opportunities as they present themselves”. The pursuit of quality, not quantity through continuous improvement must remain our objective.

2.5.4.7.Aspects learned for the Central Bank of Colombia

Because the Wal-Mart organization is such a complex one, not only because of its size, but because of its nature, it is clear that is an important reference for a complex organization like the Central Bank of Colombia. Taking into consideration the Wal-Mart case study in the perspective of the Central Bank, the organization will have to enhance a number of capabilities and turn them into the source of the Bank’s competitive advantage. This means a high level of coordination across functions, business units, and boundaries, employees’ commitment to continuous improvement, general management and leadership competence, creativity and entrepreneurship and development of open communication.

In order to acquire the above capabilities, an organizational change must realign policies and practices with the new competitive realities. The implementation of new strategies requires fundamental changes in organizational behavior. Looking ahead, the Bank must consider, according to Wal-Mart's experience, two fundamental and specific processes that can be critical for the success of future strategies:

First of all, for an organization to be successful, it must link the employees to the organization's strategic management process. Second, the entity must develop a Human Resources strategy to support the organization strategy. Whatever development programs, policies and practices are used in the organization, they must be aligned with the organizational mission and, most important, they must be supported by the management as value-added activities, not perceived as extra work assignment or as human resource initiatives.

It is important to realize, seeing Wal-Mart, that there is a movement towards the design of organizations that could revolutionize not only the way how structures are shaped, but also the manner of thinking and working therein. This means that a transition from vertical to horizontal organization, or a mix thereof, is becoming evident. It is being recognized as fundamental to build a strategic organization capacity in terms of technology, teamwork systems and learning organizations. Such strategic arrangement will allow organizations to obtain a sustainable competitive advantage. At the core of the new systems are changes in employees´ performance. The most typical innovation is the introduction of work teams. In many instances, a management employee leads these teams, but that person's role has changed from supervisor to coach or facilitator. In other instances, the teams are self-directed. In both cases, at the core of the idea of teams is the requirement that employees take responsibility for a set of tasks, and answer for the team's productivity, that workers be broadly skilled, and that an element of job rotation be present, all of these aspects have been taken into consideration with regard to the Strategic Change proposed for the Central Bank of Colombia.

Chapter Four
Conclusions and Implications

1. Conclusion

This dissertation developed an integrated theoretical framework as well as an integrated empirical study for formulating, implementing, and sustaining a fundamental organizational change for South American Central Banks with a pilot study such as Colombia's Central Bank. In order to achieve this goal, an integrated framework with a variety of theories and a deep research was made in the fields of the restructuring of organizations, organizational change and redesign, business process reengineering, cultural change and strategic management. The framework is empirically validated from the case study of one transnational corporation and a regional study of organizational culture.

According to the findings of the theoretical framework, *the main conclusion of this dissertation is that a fundamental organizational change in Central Bank organizations is feasible taking into consideration both the three phases of the change process identified in Chapter 2 and the three forces for change in an integrated model or even a holistic development of an integrated model. This is not only feasible for Central Bank Organizations but also for complex organizations*. The three phases of change as well as the three forces for change, were integrated into the strategic change matrix suggested by Orgland in 1994.

From the theoretical standpoint, the main contribution of this dissertation is that even though the resource-based view of the firm emerged as a vital model in the field of strategic management, considering that firms are fundamentally heterogeneous regarding their resources and internal capabilities in the field and, hence, that their performance differs as a result of differences in efficiency, the evolutionary and strategic theories of the firm see differences in terms of market power. This means that in order to bring theoretical support into this dissertation, *this author believe it is crucial to construct an integrated model based on the theoretical principles of the resource-*

based view of the firm and integrating the evolutionary and strategic theories of the firm. This model, as I mentioned before, is integrated into the strategic change matrix.

From the empirical standpoint, this dissertation has made an important contribution, that has to do with an integrated proposal that takes into consideration the results of the studies carried out on the assessment of needs, the performance administration system proposal, and the case studies. All of these factors will serve as a platform to support the organizational change at the Central Bank of Colombia and in the near future could serve as the basis for the organizational change of South American Central Banks. Moreover, considering the results of the regional cultural study, it was possible to determine that the organizational change proposed to the Central Bank as a pilot project is feasible for other Central Banks in the region, since there are evidences of cultural similarities that will make possible to implement the organizational change in the whole region.

According to the Research-based view of the firm, the notion that firms are fundamentally heterogeneous regarding their resources and internal capabilities is a requisite in the field of strategic management. The classic approach to strategy formulation begins with the appraisal of organizational competences and resources. This approach was the base of the assessment of needs conducted in the Central Bank of Colombia.

Regarding the Performance Administration System proposed, it was developed under the understanding that organizations that implement changes in work organization typically transform other aspects of human resource system as well. The two consistent changes are the increased use of performance-based compensation (which justify the regression analysis that have been made) and higher levels of training and development. *This is the other contribution, that is, to propose a Performance Administration System that supports and makes possible the integration of the several factors that contribute to the human resources management future state of the Central Bank of Colombia considered in the introductory section 5.5*.

2. Theoretical Implications

There are basically three fields: Strategic Management, Organizational Change, and Business Process Reengineering on which this dissertation is based.

2.1. Implications for Strategic Management

According to Hodge, Anthony and Gales (1996), the relationship between strategy and structure, or design, has been the focus of extensive investigation in the organizational literature. It should be clear by now that structure and design are both key factors in the development of strategies and are key outcomes of the strategy formulation process. The design and structure of the organization are key to the scanning of environments by boundary spanners and the transmission of information to top management. This information is central in the formulation of strategy. Whether these units are functional or otherwise may depend on a multitude of factors, but it is critical that the appropriate information be transmitted to top management.

The basis for designing an organization is the grouping of workers into departments, work units, or divisions. At its simplest level, two different approaches can be used for grouping: by function (i.e., peoples' tasks, knowledge, skills, training, or equipment) or output (i.e., products, services, markets, or geographic regions). These two approaches to grouping lead to basic design configurations: functional- and output-oriented (i.e., product, market, or geographic). The two basic design configurations can also be combined to form two additional designs. In this dissertation a hybrid organization design is proposed in the way, that a hybrid design will allows the organization to retain some functional departments serving the entire organization while creating output-oriented departments or divisions for most areas of the organization (See appendix 14).

There is an important implication for strategic management regarding the culture or the organization. *Cultures of organizations are, by nature, dynamic. That is, they naturally change and evolve in response to changes in the organization, the members of the organization, and its environment*. The Central Bank of Colombia must be aware that the organizational change process would also imply a cultural change. As a matter of fact, the management of an organization includes the idea that managers can change a culture, or parts of a culture, for this to be more consistent with the organization's strategic objectives. At this point, the management of the organizational change process in the Central Bank of Colombia can use two basic approaches to the task of culture change: *top-down* change and bottom-up change. With top-down change, top management plays the leading role in changing the culture. The culture may be changed by "decreeing" that different standards of behavior are to be observed. Top management can also attempt to change the culture through leadership. For example, the Central Bank's leadership may advocate new standards and behaviors toward employees. One technique the Bank may use is that top management serves as a model for the new standards, values, and behaviors.

The major advantage of top-down change is that it can be implemented quickly. One particular strategy that should be used to bring about top-down change is through a change in the top management team. Bringing in new leaders often involves an implicit attempt to change the culture. One problem with top-down culture change, however, is that the changes may not be consistent with the values and norms of lower-level members of the organization. This may bring about resentment and resistance, and may produce changes that are not long lasting. With bottom-up or participative approaches to change, *organizational members are involved in the change process*. This type of change may be slower, but it is likely to be longer lasting because employees are involved with and committed to the change.

According to Wilbur (1999), some things to keep in mind when communicating a change initiative to employees:

1. People need to understand why the organization is changing and need to be sold on the benefits.
2. You should decide beforehand on the communication vehicles. Communication should be frequent and ongoing.
3. Training should be provided, if necessary.
4. If people will lose their jobs, this needs to be communicated to them openly and honestly.
5. Rather than slashing jobs, you may want to work with top employees to reengineer their jobs.

Another important aspect considering the organizational fundamental change for the Central Bank of Colombia and that will be crucial in the future organizational performance *is the necessity to examine the relationship between culture and strategy*. The formulation and pursuit of a strategy involves the allocation of an organization's resources (including human resources) and attention to a specific set of long-term purposes. The beliefs, values, norms, and philosophy of top management should guide the strategy formulation. These beliefs might include such fundamental beliefs as being an innovative leader in the national economy taking into consideration that central banks in South America are organizational models for their organizations nationwide. The formulation of that strategy then sets a context or agenda for organizational action. Individuals' beliefs are the rules, norms, values, and assumptions that members observe when engaging in behaviors directed at the fulfillment of the strategy. These beliefs may include work rules; standards about interactions with peers, subordinates, or superiors; and expectations about how to interact with customers. Thus, managing the culture and strategy so that they are consistent and congruent is a key managerial task. According to Stanley M. Davis (1984), "taking our strategic systems view of organizations, culture is both an input that guides the strategy formulation and implementation process and is also a part of the throughput process. Culture provides guidelines for strategy formulation and implementation, and culture provides a context for the organization to pursue the strategy". Thus, there must be congruency between culture, strategy, and organization.

2.2. Implications for Organizational Change

Organizational Change was initially viewed by some as a passing phenomenon, a kind of overdue corporate correction. The continuing open-ing of the world economies to international competition and the further involvement of companies in other economies, however, can be expected only to intensify the pressure for change. So too should the continuing concentration of corporate ownership in a small number of very large hands. *The pressures inside companies for increased flexibility and for reduced fixed costs, as well as the continuous redefinition of competencies, should keep the need to restructure on the agenda for years to come*. Organizational struc-tures and work systems are therefore likely to be further recon-figured in the years ahead. Moreover, since integrated, systemic change is required if restructuring it to achieve its ends, the reshaping is also likely to press more deeply into more facets of organiza-tional and work systems. In short, restructuring means more than a one-time adaptation to a new organizational model. It means adapt-ing to a model in which changes are likely to continue.

The connected paths to restructuring can leave a swath of destruction in their wake. Some employees find that they have lost all, or are on the precipice of losing all. Job security, pension income, and health insurance may be at risk or gone altogether. At the same time, for workers who survive their companies workforce redesign, the reorganized office or plant has often come to be a more challenging, more creative, more engaging place. Virtually all workers have been expected to do more with less. Yet at least with respect to the work they perform, many also have found the new organizational environments an im-provement over the old. Although management's are driven to consider restructuring by external forces not of their own making, they still must make their own way in response to the forces. There are choices to be made. As organizational restructuring continues its uneven but seemingly un-relenting course, managers and unions must take their organiza-tions in one of two directions. If the leadership has resisted change and is forced to confront its competitive decline, downsizing and restructuring measures may be the only feasible course. In that case, the costs to employees and the company may be high as workplace insecurity and short-term pressures override long-term commitments. On the other hand, *if the leadership has built a culture that accommodates change and is ready for organizational innovation, it may be possible to address the pressures earlier and with less disruption. If so, the benefits to employees and companies may be high as workplace empowerment and long-term planning dominate the agenda*. This is precisely a key aspect that support the hybrid of organizational change proposed on appendix 14.

According to Hodge, Anthony and Gales (1996), it is necessary to determine the characteristics of an effective design. According to Shetty and Howard (1972), we must point out at the outset that there is no one right design that is best for all organizations. There are designs that are more appropriate for a particular organization, given the circumstances it faces. Mayor determinants of the most appropriate designs are the environmental conditions the firm faces, the technology (or technologies) that the firm uses, the firm's strategic goals or objectives, its size and point in the organizational life cycle, and finally its culture.

According to Hodge, Anthony and Gales (1996), regardless of these circumstances, all organization designs should have certain characteristics if they are to be effective. These are efficient operation, encouragement of innovation, flexibility and adaptiveness, facilitation of individual performance and development, facilitation of coordination and communication, and facilitation of strategy formulation, implementation, and achievement. This is the focus of the dissertation and one of the key contributions. That is, to propose a fundamental organizational change based on the theoretical framework developed in this doctoral document integrating the factors of human resource management identified in the introductory section with a performance administration system that serves. as a platform to the model.

According to Hodge, Anthony and Gales (1996), an organization’s design should encourage the efficient pursuit of the organization's goals. According to Pfeffer and Salancick (1978), efficiency, doing things right, is a critical factor for the survival and success of an organization, and the appropriateness of the organizations design is among the key factors. One need only look at struggling organizations of the late 1980s and early 1990s such as IBM, K-mart, and General Motors. In each case, among the first actions these companies took to restore efficient operation was to implement a new design. It is not only struggling firms that modify their designs to enhance efficiency. Many firms change design configurations to eliminate duplication, improve responsiveness, and achieve economies of scale. *Efficient design should provide a skeleton or network of task differentiation and integration for the allocation and utilization of an organization's resources*.

According to Hodge, Anthony and Gales (1996), even organizations in static, simple environments need innovation - the ability to generate more effective and efficient ways of operating and new products or services to offer. *Design should encourage innovation by providing the pooling of resources and the necessary communication for innovation to take place*. In the case of a complex organization such as the Central Bank of Colombia, this kind of organizations require even more innovation if the organization is to stay in tune with and respond to its responsibilities and the fulfillment of the new organization vision, which is to lead the economical growth and the social development of the country.

The model of organizational change proposed in this dissertation (see figure 15 in the practical implications section), should thus facilitate the scanning of the environment, boundary spanning, and innovation. In these environments, designs that keep the organization in close contact with elements of the environment are critical to survival. Links between the environment and top decision-makers who formulate and implement strategy are critical.

According to Hodge, Anthony and Gales (1996), all organizations need to be flexible and adaptive. Fewer and fewer industrial environments can be characterized as stable and simple. As noted above, the ability to change and respond to new environmental conditions is critical to survival. It is not only necessary to innovate in areas of operations and products or services, but the organization itself. An effective design must balance the needs for consistency and predictability with the needs for flexibility and responsiveness. Designs can facilitate flexibility and adaptiveness in two ways. *First*, the design and supporting structure can act as a conduit to transmit information from boundary spanners and environmental scanners to top decision-makers, allowing management to formulate and implement new strategies, including redesigning the organization. *Second*, the design itself can create units, departments, or divisions close to the environment that can respond. For example, in matrix organizations resources can be moved around as needed in response to changing conditions. This can happen without much involvement of top management.

In my opinion, the organization's design should offer the individual the opportunity to perform at his or her highest level of ability in areas of interest and competence. The design should encourage employees to grow on the job by learning new skills and accepting increasing responsibilities as they become more experienced. *The design should provide a clear career path or ladder of organization jobs or positions and a system whereby employees can get necessary training to qualify them for higher level jobs*.

According to Hodge, Anthony and Gales (1996), at the core of structuring and designing organizations is the effective execution of tasks. Leaders should differentiate tasks, group employees together, and then integrate that work so that the work of the organization can be conducted in a nearly smooth and seamless manner. Key to that smooth and seamless operation is the design configuration that management selects. Managers must ask several questions. Should work be organized around functional expertise, outputs, or both? How big do units need to be to achieve economies of sale? How much do units, divisions, or departments need to interact? The appropriate design will then facilitate coordination and communication where it is most needed.
According to Gelinas and James (1999), there are four common problems that can derail a change effort.

Lack of employee support

If there aren't enough people who buy into it and believe it's necessary, you're in trouble.

Underestimating the time and resources required

It takes a lot of time, energy, and sometimes money to provide employees the necessary "equipment" whether it be software or negotiation skills.

Insufficient infrastructure

Your HR systems and other infrastructure will be put to the test.

Even when your change process appears to be moving along nicely, it can still get stymied if there are no signs of progress.There needs to be some level of urgency to the situation to gather enough momentum for the effort to succeed.

2.3. Implications for Business Process Reengineering

This study has provided several aspects that can have important implications for the field of Business Process Reengineering. This dissertation has shown that redesigning business process besides the continuous improvement of those business processes together, represents some of the aspects that the organization needs to take into consideration for an organizational change. This means, that top-down direction setting and bottom-up performance improvement need to be complemented with the horizontal process redesign. In this sense, a vision and strategic direction as well as a felt need for change, are factors that contribute to the achievement of the goals regarding the horizontal process redesign.

The Central Bank should encourage the efficient pursuit of the organization's goals. Efficiency, doing things right, is a critical factor for the survival and success of an organization, and the appropriateness of the organization's design is among the key factors[19].19 In fact, many companies around the world change design configurations to eliminate duplication, improve responsiveness, and achieve economies of scale. Efficient design should provide a skeleton or network of task differ-entiation and integration for the allocation and utilization of an organization's resources.

Since the organization of the Central Bank has remained static and rigid for a long time, one essential aspect of the change is *innovation*. The bank should analyze the ability to generate more effective and efficient ways of operating and new products or services to offer. Design should encourage innovation by providing the pooling of resources and the necessary communication for innovation to take place.

Currently, the Central Bank is facing dynamic, complex environments that require even more innova-tion if the organization is to stay in tune with and respond to its environment. Design should thus facilitate scanning of the environment, boundary spanning, and innovation. In these environments, designs that keep the organization in close contact with elements of the environment are critical to survival. *Moreover, links between the environment and top deci-sion-makers who formulate and implement strategy are critical*.

Another important element for the business process reengineering is related to the fact that *all organizations need to be flexible and adaptive*. Fewer and fewer industrial

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[19] J. Pfeffer and G. Salancik, The External Control of organizations (New York: Harper & Row: 1978).

environments can be characterized as stable and simple. As noted above, the ability to change and respond to new environmental conditions is critical to survival. It is not only neces-sary to innovate in areas of operations and products or services, but the organization itself, it must also be in a position to change and respond. An effective design must balance the needs for consistency and predictability with the needs for flexibility and responsiveness.

Designs can facilitate flexibility and adaptiveness in two ways. First, the design and supporting structure can act as a conduit to transmit information from boundary spanners and environmental scanners to top-decision makers, allowing management to formulate and implement new strategies, including redesigning the organization. Second, the design itself can create units, departments, or divisions close to the environment that can respond. For example, in matrix organizations resources can be moved around as needed in response to changing conditions. This can happen without much involvement of top management.

Probably the most common complaint about organizational designs made by organization members is that, instead of facilitating performance, they often block effective performance and stifle the individual.

While many of these complaints are directed at bureaucratic structures, the design configuration may also be a problem. Functional designs may pigeonhole people in narrowly defined functional tasks. Some functional departments, such as human resources or information systems, may, in some firms, be the organizational backwaters far from the action because these functions are not directly involved in producing output. People in these departments may become alienated. More recently, progressive organizations are realizing the importance of these support services. On the other hand output-oriented and federal designs may hinder personnel movement among divisions, which may stifle advancement within the organization. Whatever the design, it should offer the individual the opportunity to perform his or her highest level of ability in areas of interest and competence. The design should encourage employees to grow on the job by learning new skills and accepting increasing responsibilities as they become more experienced. The design should provide a clear career path or ladder of organization jobs or positions and a system whereby employees can get necessary training to qualify them for higher level jobs.

At the core of structuring and designing organizations is the effective execution of how leaders should differentiate tasks, group employees together, and then integrate that work so that the work of the organization can be conducted in a nearly smooth and seamless less manner. Key to that smooth and seamless operation is the design configuration that management selects. Managers must ask several questions. Should work be organized around functional expertise, outputs, or both? How big do units need to be to achieve economies of scale? How much do units, divisions, or departments need to interact? *The appropriate design will then facilitate coordination and communication where it is most needed*. It is important to note, however, that merely picking a design that fits is not enough. Integration, must be present along with the appropriate design if coordination and communication are to be achieved.

The relationship between strategy and structure, or design, has been the focus of extensive investigation in the organizational literature. It should be clear by now that struc-ture and design are both key factors in *the development of strategies and are key outcomes of the strategy formulation process*. The design and struc-ture of the organization are key to the scanning of environments by boundary spanners and the transmission of information to top management. This information is fundamen-tal in the formulation of strategy. Whether these units are functional or otherwise may depend on a multitude of factors, but it is critical that the appropriate information be transmitted to top management.

The organization, may be strategically redesigned as a result of the information transmitted to top management. Organizations may move from functional groupings to some other design configuration as they grow and develop new products or services. Federal or virtual organi-zations may alter their collection of affiliations as they enter new or exit old markets. The point is that strategy and design are tightly linked. As organizations adopt new strate-gies, they may need to modify their designs. Different design configurations may make available different information and resources that may result in shifting strategies. Designs may again need to be realigned with strategy.

An important finding of this dissertation is that business process reengineering needs to recognize its links to total quality management, which was explained in section 6.4.1 of the theoretical framework; based on the similarities of both concepts. Three are four key principles of total quality management such as customer satisfaction, management by fact, respect for people and continuous improvement; principles that were already explained in this section.

Finally, It is important to realize the role of information technology considering the business process redesign. At this point it is appropriate to say that information technology plays a fundamental role regarding the redesign of several processes, according to the findings through the development of this dissertation.

3. Practical Implications

The main implication for this dissertation is that if the Top Management of the Central Bank of Colombia wants to formulate , implement and sustain a fundamental change in the organization, it should consider the three forces for change through the three phases developed in this doctoral document. The key elements of each of the three forces for change in each phase of the change process have been combined into the Strategic Change Matrix. In simplified terms, if Top Management of the Central Bank of Colombia or any Top Management of a complex organization wants to initiate a fundamental change, they could apply the strategic change matrix formulated by Orgland in 1994, but under the principles proposed in this dissertation. For this purpose, I have designed a model that gathers all the principles discussed and integrated into the Strategic Change Matrix, considering the strategic planning needed to the success of a fundamental change for complex organizations analyzed in this study (See figure 15).

According to Gales, Tiernry, and Boynton (1995), the process of changing an organization may be a complex one, involve many people, large amounts of organizational resources, and a lot of time. Nonetheless, in many respects, organizational change is much like the processes associ-ated with any generic decision-making process. In Figure 15 we can see, the first step in the process is the Diagnosis of External and Internal Conditions and hence, the second step, the recognition of a need for change; Recognition that a gap exists between the organization's current state of affairs and its future desired state of affairs.

Top management of the Central Bank may recognize changes in the external environment such as new rules and regulations, new competitors, new products, new technological advances, or other sorts of relevant change. Or top management may recognize internal conditions that are undesirable. In either case, members of the Top Management Team analyze gaps between the current state of the organiza-tion and the future state. The desired conditions for the Future State could include greater profitability, greater efficiency, a flexible organizational structure, a learning organization, new operations, or other changed conditions.

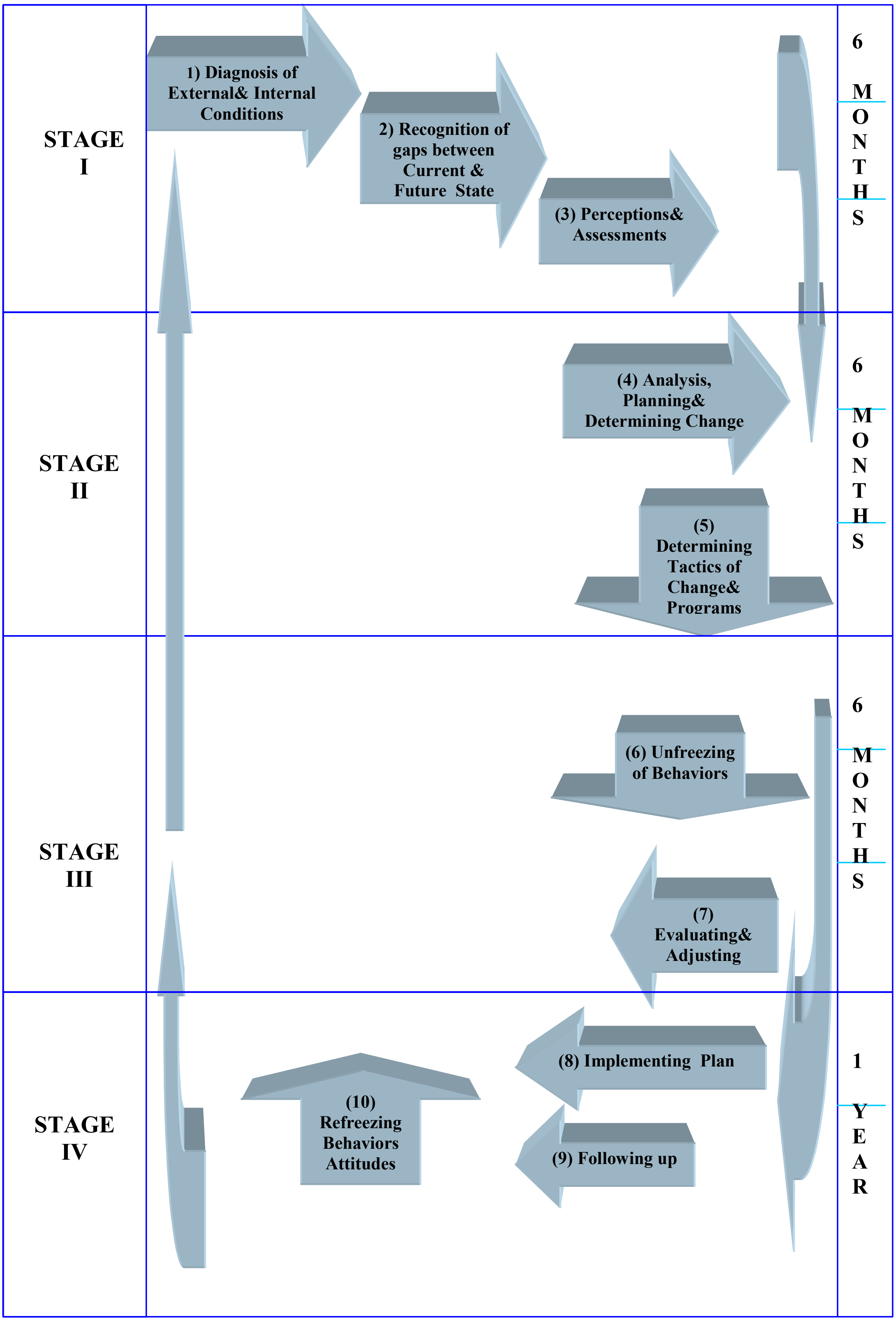

Figure 15 Strategic Change Model for The Central Bank of Colombia

This gap between what is what is desired becomes the impetus for change. Top Management of the Central Bank should recognize the gap and decide that something should be done about it. *If the change process proceeds in a planned fashion, the process will follow a series of specific stages. The third step*, following recognition that a problem exists, Top Management should Perceive and Assess the types of changes that they think are necessary, the degree of change needed, and the speed of change required to narrow the gap. However, because of bounded rationality and the culture of the organization, the nature of problem identification and the assess-ment of the nature of change are likely to be biased and perhaps incomplete. How does Top Management of the Central Bank view change? Do they find it threatening? Do they see it as a nuisance or a challenge? How much experience does management have with change? Is the culture one that is receptive to change? All of these questions come to bear as Top Management of the Central Bank attempts to assess the extent and type of change that may be performed. The three steps described here, should take a six month period.

The fourth step is at the Analysis, Planning and Determining Change Goals stage that the organization has to decide how it will deal with change (An Assessment of Needs was already conducted). This is the first step for top management of the Central Bank in designing a specific change strat-egy. The Top Management Team determines the parts of the orga-nization in need of change. The organization itself may determine that it needs to improve efficiency (i.e., a gap in performance, which was evaluated in this study and consequently a Performance Administration System is proposed) and that this can be achieved by improv-ing operations. At this point, Top Management of the Central Bank often determines formally the scope and direction of change, whether change efforts are to be actively encouraged, redirected, amplified, ignored, or even prevented. Thus, some managers of the team may focus attention on ways to improve efficiency (e.g., decrease labor costs, downsizing, etc.). Other managers may take this efficiency mandate as license to make many other types of changes that are only periph-erally related to efficiency. Still other managers may try to avoid any changes because they fear the impact the changes might have on their jobs, power, and prestige in the organization. Once the nature of the change has been identified, it is necessary to specify the goals of the change effort. The problem may be inefficiency, but management must specify the goals of change. The goals should be specific and verifiable. Goal specification is critical because without clear objectives it is hard to know what to change and whether the change effort has been effective. At this point, the Top Management team still has not determined the specific change tactics or program to be used to accomplish the above-stated goals. This is the Fifth step. The orga-nization needs to Determine or to Develop the Specific Tactics of Change, Programs, and Activities that will achieve the goals. If the goal is to reduce direct labor costs by 30 percent, Top Management now needs to identify how this is to be achieved. The Central Bank organization could reduce the labor force and demand that existing workers work harder, faster, and smarter. The organization could also adopt new technology (e.g., robotics, High Performance Work Teams) that increases productivity (i.e., a decrease of direct labor costs). For any given problem or gap there may be many change strategies that could prove useful either individually or in combination. These two steps would take about a six months period to be developed.

Once the change program has been determined, the Top Management of the Central Bank organization must focus on implementation. Implementing change means that employees are likely to be affected and that changes in employee behaviors will be required. Change frequently involves unlearning old ways of doing things and learning new ways to do them. This is *the sixth step*, which is the Unlearning or Unfreezing of Behaviors step. Attempts must be made to ensure that employees approach change with an open mind.

According to Brockner (1995), the mid-1990s have been characterized by radical changes in organizations. One such type of change has been the extensive down-sizing at many organizations. In the past, layoffs were largely the result of downturns in the business cycle. The latest round of downsizing, however, appears to be different. Many prosperous organizations as well as those that are under performing are shedding workers. A variety of complex and often interactive forces, including worldwide compe-tition, deregulation, new technologies, and demanding stakeholders, have resulted in these changes. The success of downsizing strategies has been mixed at best. However, *results of several studies suggest that when a planned change is followed, it is more likely that remaining employees will respond favorably to downsizing*. In particular, when employees know what to expect, why it is happening, and what impact it is likely to have on them, they are more likely to respond positively to the change. Employees' receptivity to organizational change of any sort is never a sure bet.

However, *one way to increase the likelihood of employees accepting and embracing change is to have them participate in planning and carrying out the change strategy*. Employees could help to identify gaps and potential solutions. They could also be involved in the actual implementation of the potential change strategy. This participation should occur in an open, non-threatening, and supportive environment. It is not unusual for employees to oppose change because they feel threatened by it or do not fully understand it. *Top Management can to some extent overcome these concerns through employee participation. Change efforts do not end with implementation*. Before changes would be imple-mented (*step eighth*), the organization must Evaluate or Assess the changes to determine whether they have solved the problems that motivated change in the first place. Although this may seem to be an obvi-ous and necessary step, it is one that is sometimes missing from change strategies. Fear may keep managers from evaluating change strategies, Fear that they may not have been successful. However assessment can lead to modifications and adjustments that eventually produce successful changes in the organization. Given the complexity of organizations and the disruptive nature of change, it is likely that any change strategy needs at least some fine-tuning and maybe even major adjustments. This is the essence of step seventh.

The formal change process ends with refreezing of behaviors and attitudes (step tenth). The new behaviors and attitudes that have been brought about by the change strategy need to become part of the institutional fabric of the organization. Through official poli-cies such as work rules, compensation systems, and training, and through unofficial means such as the culture (e.g., language, symbols), the organization must establish the new behaviors and attitudes as the ones that are desired and appropriate. *An organization that has downsized and flattened its administrative hierarchy needs to establish new rules and norms for communication between layers of the organization*. Perhaps the organization has set guidelines for lower-level employees to take new responsibilities for making decisions. The Central Bank organization must create an internal environ-ment to support these new behaviors. One organization that failed to set new communication standards then found that lower-level employees, who were supposedly empowered to make decisions, were still asking for permission because that was the way things used to work. *An organization that wants to avoid major problems and subsequent radical change should continue to monitor change efforts long after* *they have been implemented and adjusted*. Continuous monitoring may bring problems to the forefront before they are serious and require radical or extensive change.

According to this planned change, The Central Bank Organization should start gradually to decentralize organizational structure and mode of operations into the business units that will allow the organization in approximately 3 years to count on a competitive and flexible structure (see appendix 14), adaptable to the environmental changes (Autonomy is essential in this decentralization process).

- Delegation of authority, specifically addressing and supporting:
  - Innovative thinking
  - Sharing and learning
  - Development of guides that orient employee to learn and share information across the organization.

- Rotation between different areas and between functions will help employees understand the organization from many perspectives. This mobility makes possible informal knowledge transfer within the organization.

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Appendixes

Appendix 1: Globe's Study and Leadership Scale Description

Through factorial analysis of the results obtained with 112 items from the questionnaire in 61 countries, 21-dimension leadership scales were created. Each one of these scales is composed of several questions from the questionnaire, which are described below:

1. Managerially competent: (1) Is organized and methodological at work; (2) Capable of planning, organizing, coordinating and controlling the work of a great number of people; (3) well organized, methodological, in array; (4) possesses ability to manage complex office work and management systems.
2. Self-centered: (1) Looks for his or her own interest; (2) Does not participate with others; (3) Works and acts "pushing" others away; (4) Avoids people or groups – prefers his or her own company.
3. Autocratic: (1) Takes decisions in a dictatorship manner; (2) imposes, by force, his or her principles and ideas to others; (3) indicates his subordinates what to do in an imperial manner; (4) is elitist (thinks that a small number of people, with a similar or superior background should enjoy certain privileges); (5) is in charge and does not tolerate disagreements or question and gives orders; (6) is leaned toward dominating others.
4. Independent: (1) is a person that behaves different from his or her co-workers; (2) does not depend on others – manages him or herself; (3) acts independently, without going to others; (4) is unusual or different – the person's behavior is characterized because it is different from many others.
5. Inspiring person: (1) shows and imparts strong positive emotions toward work; (2) is generally optimistic and sure of him or herself; (3) gives value, trust, hope or contribution when he or she advises others; (4) Enhances the mood of subordinates when cheering them up or congratulating them and / or giving them self-trust; (5) moves and puts into action those who follow him; (6) gives trust to others; (7) is very involved, energetic, enthusiastic, motivated; (8) stimulates others to do or give more than the call of duty and makes personal sacrifices.

6. Charismatic – sacrificed: (1) permits the investment of important resources in tasks that have a high probability of succeeding; (2) sacrifices personal interests for the benefit of the vision or goal; (3) extremely capable of persuading his point of view on others.
7. Visionary: (1) Foresees possible future events; (2) stimulates others to think and use their mind, challenges beliefs, stereotypes and others' attitudes; (3) makes plans and takes measures based on future achievements; (4) is prepared for future events; (5) tries to prognosticate events and takes into account what will happen in the future; (6) inspires emotions, beliefs, principles and others' behavior, inspires others to work hard; (7) has a vision or image of the future; (8) is able to prevent future needs with anticipation.
8. Team-worker: (1) worries about the group's well-being; (2) works together with others; (3) keeps and backs up friends, even when they have serious problems or difficulties; (4) consults others before planning or taking measures; (5) intervenes to solve problems between people; (6) leans toward being a good subordinate's friend.
9. Induces to conflicts: (1) behaves according to the group's rules; (2) tends to hide information from others; (3) tries to out-perform the others in his or her group.
10. Status conscious: (1) conscious of the social status among others; (2) is conscious of social class limits, status and acts as it corresponds.
11. Decisive: (1) determined, resolved, persistent; (2) quickly makes firm decisions; (3) the person uses logic when thinking; (4) he/she has intuitive perspicacity.
12. Diplomatic: skilled at interpersonal relationships, accurate; (2) interested in day-to-day events, has a global perspective; (3) able to identify solutions that satisfy people in conflict and with diverse interests; (5) able to effectively negotiate with others and able to carry out transactions to favorable conditions.
13. Worries too much about image: (1) does not go direct to the point, uses metaphors and examples to communicate; (2) avoids saying "no" to others when asked to do something, even when it cannot be done; (3) abstains him or herself from making negative comments to maintain good relationships and keep a good appearance.
14. Humanist: (1) tends to give time, money, resources and help to others; (2) feels compassion for others, leans toward being considerate or show mercy.

15. Integrate: (1) says the truth and acts according to it; (2) speaks seriously, formally; (3) acts according to what is correct or fair; (4) deserves trust – belief and you can assume he or she will do what they say.
16. Evil: (1) not very friendly, acts negatively toward others; (2) fake, not very sincere; (3) vengeful, tries to get back at the people whom offend them; (4) moody, gets in a bad mood easily; (5) tends to think the worst of people and events; (6) one cannot depend on them; (7) is not willing to do teamwork; (8) conceited, convinced of their own abilities; (9) sagacious, learns easily.
17. Modest: (1) he/she doesn't boast, presents him or herself in a humble way; (2) has patience and shows it.
18. Non-participative: (1) does not want or is not able to hand over the control of projects or duties; (2) very strict supervisor, insists on making all the decisions; (3) thinks that all people are not the same and only some should have equal rights and privileges; (4) worries and highly values preserving individual need before those of the group.
19. Performance-oriented: (1) seeks a continuous performance enhancement; (2) makes an effort for performance excellence of himself and subordinates; (3) sets high performance standards.
20. Bureaucratic: (1) uses a prescribed order to carry out processes; (2) acts according to the rules, etiquette and ceremonies; (4) committed to a constant and normal routine; (5) acts and performs very carefully and does not take risks; (5) follows established procedures.
21. Team–integrator: (1) often communicates with others; is able to make team-members work together; (3) has knowledge, up-to-date on information; (4) is easily understood; (5) integrates people and things in a cohesive work group; (7) the opposite of being quiet, still or meek.

Appendix 2: How Society is and How it should be?

CULTURE: HOW IS AND HOW THE SOCIETY SHOULD BE

Data by Regions (media, stándard deviation,variation coefficient)

Countries	ASSERTIVENESS				COLECTIVISM I (I-C continuum)				COLECTIVISM II (org/family/loyalt)				DISTANCE OF POWER				UNCERTAINTY AVOIDS			
	Is		Should be		Is		Should be		Is		Should be		Is		Should be		Is		Should be	
Argentina	3,70	B4	4,22	A	3,66	C1	5,32	A	5,51	A1	6,15	A	5,64	A2	2,33	D	3,65	C4	4,66	B
Bolivia	4,12	A2	3,58	B	4,04	B2	5,10	A	5,47	A7	6,00	A	4,51	C10	3,41	B	3,35	D9	4,70	B
Brasil	3,70	B4	4,22	A	3,83	C6	5,62	A	5,18	B10	5,15	B	5,33	A	2,35	D	3,60	C6	4,99	A
Colombia	3,08	B3	3,59	B	3,81	C7	5,38	A	5,73	A2	6,25	A	5,56	B5	2,04	D	3,57	C7	4,98	A
Costa Rica	4,37	A1	3,25	B	3,93	B4	5,18	A	5,32	B9	6,08	A	4,74	B8	2,58	C	3,82	C2	4,58	B
Ecuador	3,72	B3	3,32	B	3,90	B5	5,41	A	5,81	A1	6,17	A	5,60	A4	2,30	D	3,68	C3	5,16	A
El Salvador	2,82	B9	2,97	B	3,71	C10	5,65	A	5,35	A8	6,52	A	5,68	A1	2,68	C	3,62	C5	5,32	A
Guatemala	3,82	B6	3,43	B	3,70	C8	5,23	A	5,63	A4	6,14	A	5,60	A3	2,35	D	3,30	D10	4,88	B
México	3,58	B5	3,46	B	4,06	B1	4,92	B	5,71	A3	5,95	A	5,22	B7	2,85	C	4,18	B1	5,26	A
Venezuela	3,32	B7	3,70	A	3,96	B3	5,39	A	5,53	A5	6,17	A	5,40	A6	2,29	D	3,44	D3	5,26	A
Media	3,62		3,57		3,86		5,32		5,52		6,06		5,33		2,52		3,62		4,98	
Standard Deviation	0,04		0,40		0,14		0,22		0,20		0,35		0,40		0,39		0,25		0,27	
Variation Coefficient	0,12		0,11		0,04		0,04		0,04		0,06		0,08		0,15		0,07		0,05	

COUNTRIES	GENDER EGALITARIANISM				PERFORMANCE ORIENTATION				FUTURE ORIENTATION				HUMANISM ORIENTATION			
	Is		Should be		Is		Should be		Is		Should be		Is		Should be	
Argentina	3,49	B6	5	A	3,7	C8	6,35	A	3,08	D10	5,78	A	4	C5	5,6	A
Bolivia	3,55	B5	4,8	A	3,6	C9	6,05	A	3,61	C5	5,63	A	4,1	C4	5,1	B
Brasil	3,31	B7	5	A	4	B3	6,13	A	3,81	C2	5,69	A	3,7	D10	5,7	A
Colombia	3,67	B3	5	A	3,9	B4	6,42	A	3,27	C8	5,68	A	3,7	C8	5,6	A
Costa Rica	3,56	B4	4,6	B	4,1	B1	5,9	B	3,6	C6	5,2	B	4,4	B2	5	B
Ecuador	3,07	C9	4,6	B	4,2	B5	6,32	A	3,74	C4	5,94	A	4,7	B1	5,3	B
El Salvador	3,16	B8	4,7	A	3,7	C7	6,58	A	3,8	C3	5,98	A	3,7	C9	5,5	B
Guatemala	3,02	C10	4,5	B	3,8	B6	6,14	A	3,24	D9	5,91	A	3,9	C7	5,3	B
Mexico	3,64	B1	4,7	A	4,1	B2	6,16	A	3,87	B1	5,86	A	4	C6	5,1	B
Venezuela	3,62	B2	4,8	A	3,3	B10	6,35	A	3,35	C7	5,79	A	4,3	B3	5,3	B
Media	**3,409**		4,769		**3,851**		6,240		**3,537**		5,746		**4,029**		5,332	
Standard Deviation	0,248		0,173		0,279		0,200		0,281		0,225		0,320		0,242	
Variation Coefficient	0,073		0,036		0,072		0,032		0,079		0,039		0,079		0,045	

Appendix 3: How Society is and How it should be?

Leadership Data by Regions

CULTURE: HOW IS AND HOW THE SOCIETY SHOULD BE

Data by Region (media, standard deviation, variation coefficient)

Should be

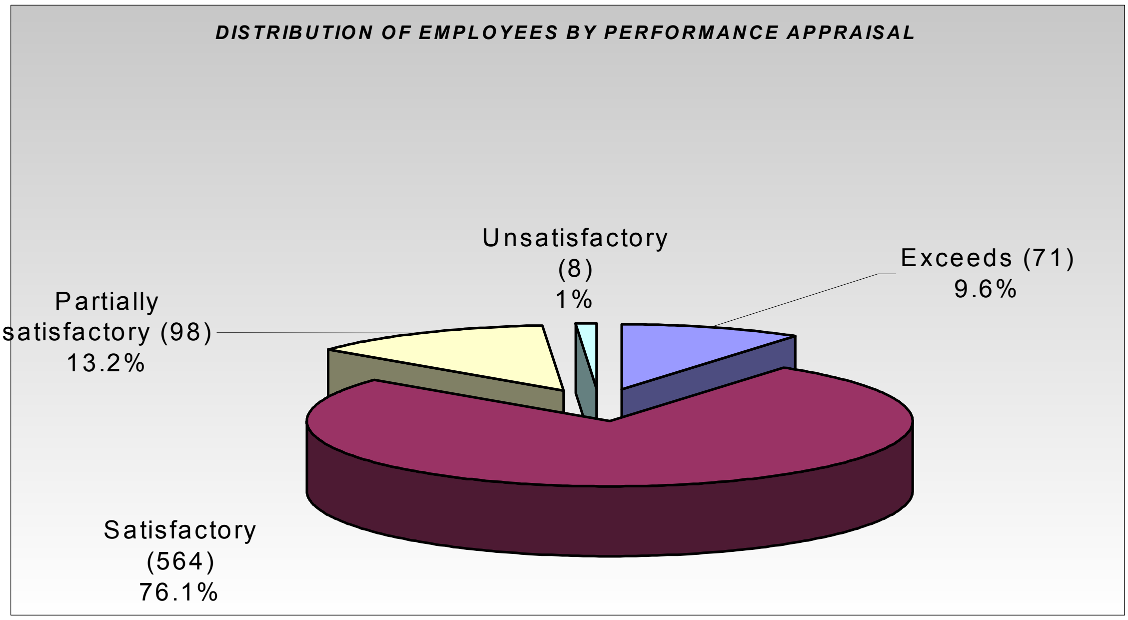
Argentina	5,67	1,71	2,23	4,55	6,32	4,87	6,15	5,69	4,24	4,59
Bolivia	6,30	2,34	2,79	**3,92**	6,28	4,94	6,20	5,77	3,88	5,35
Brasil	6,07	2,12	1,93	**2,27**	6,35	4,84	6,15	6,09	3,96	5,17
Colombia	6,11	1,91	2,44	**3,34**	6,34	5,21	6,36	**5,90**	4,19	4,51
Costa Rica	5,86	1,96	2,45	**3,46**	6,10	5,67	6,06	5,74	4,17	5,08
Ecuador	6,35	1,83	2,50	**3,53**	6,63	5,99	6,50	**5,99**	4,45	5,13
El Salvador	6,17	1,74	2,64	3,47	6,25	5,81	6,21	5,62	3,81	4,56
Guatemala	6,12	1,87	2,35	3,38	6,25	5,71	6,06	5,87	4,55	5,17
México	5,92	2,52	3,35	**3,86**	5,91	4,80	5,78	5,54	4,27	4,64
Venezuela	5,78	2,89	3,00	**3,39**	5,81	5,56	5,74	5,14	3,74	4,32
Media	**6,04**	**2,09**	**2,57**	**3,52**	**6,22**	**5,34**	**6,12**	**5,74**	**4,13**	**4,85**
Estándar deviation	0,22	0,38	0,40	0,57	0,23	0,46	0,23	0,27	0,27	0,36
Variation Coefficient	0,04	0,18	0,16	0,16	0,04	0,09	0,04	0,05	0,07	0,07

Gender

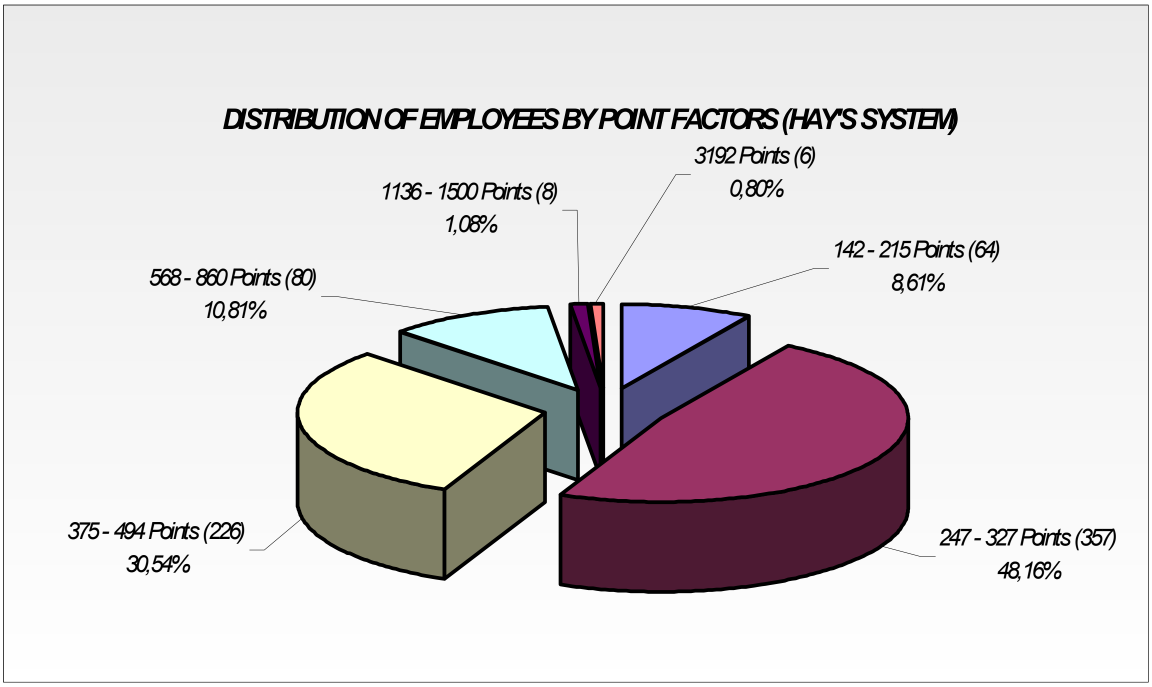
Egalitarianism

	Decisive	Diplomatic	Face-Saving	Humanistic	Integrity	Malevolent	Modest level-headed	Non participative	Performance oriented	Meticulous (Burocratic)	Team Integrator
Argentina	6,130	6,050	3,000	4,710	6,150	1,580	4,720	2,000	6,200	3,850	6,040
Bolivia	6,270	5,990	2,830	4,770	6,290	1,790	4,430	2,630	6,040	4,850	6,250
Brasil	5,700	5,570	2,530	4,080	6,620	1,330	5,440	**1,960**	6,360	3,850	6,430
Colombia	5,520	5,630	2,500	**4,560**	6,430	1,590	5,430	**2,540**	6,390	3,780	6,300
Costa Rica	5,660	5,140	2,720	**4,360**	6,180	1,710	5,480	**2,470**	6,150	3,980	6,050
Ecuador	6,290	5,660	2,570	**4,710**	6,790	1,390	5,460	**2,490**	6,640	4,300	6,430
El Salvador	5,780	5,260	2,810	**4,150**	6,290	1,610	5,130	**2,560**	6,220	4,340	6,340
Guatemala	5,770	5,230	3,050	4,680	6,240	1,590	5,270	**2,750**	6,090	4,380	6,090
México	5,540	5,550	3,340	4,720	5,770	2,090	4,740	3,380	6,140	4,480	5,850
Venezuela	5,400	5,390	3,530	**4,640**	5,890	2,180	5,040	**3,220**	6,050	4,410	6,010
Media	5,806	5,547	2,888	4,538	6,265	1,686	5,114	**2,600**	6,228	4,222	6,179
Estándar Deviation	**0,317**	0,306	0,345	**0,251**	**0,305**	0,273	0,373	**0,450**	**0,187**	0,345	0,198
Variation Coefficient	0,055	0,055	0,120	0,055	0,049	0,162	0,073	0,173	0,030	0,082	0,032

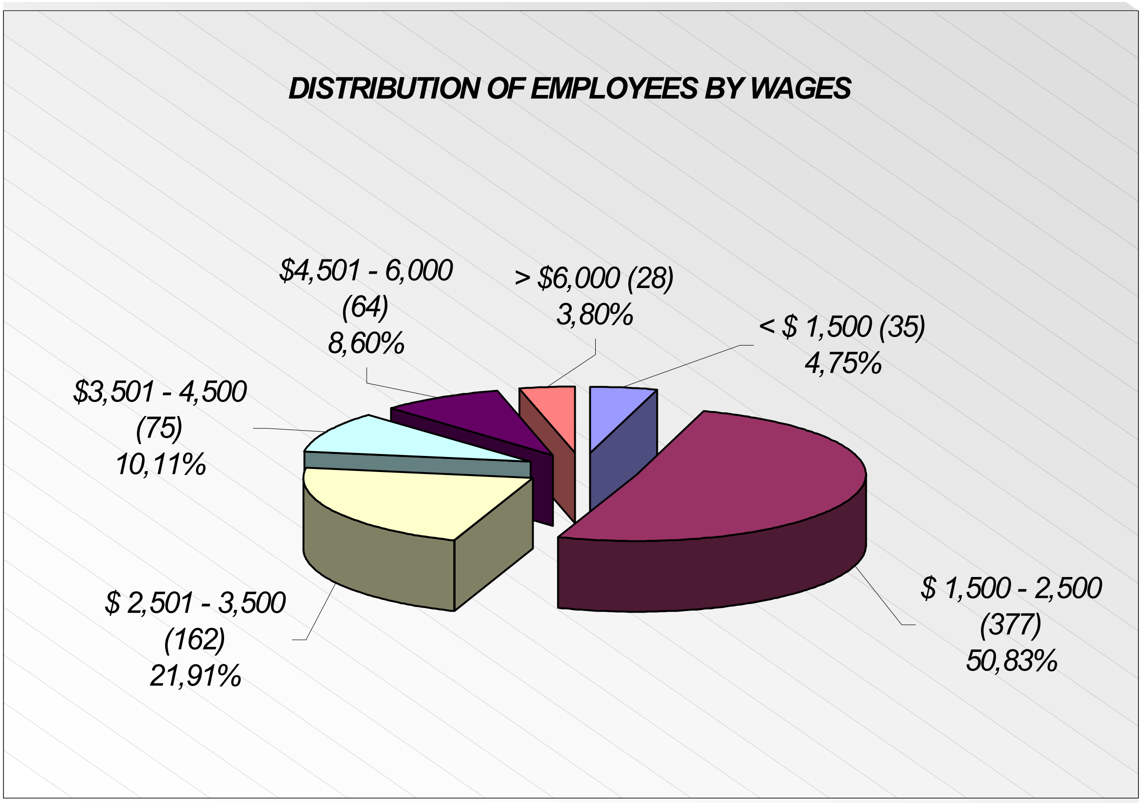
Appendix 4: Central Bank of Colombia – Performance Appraisal



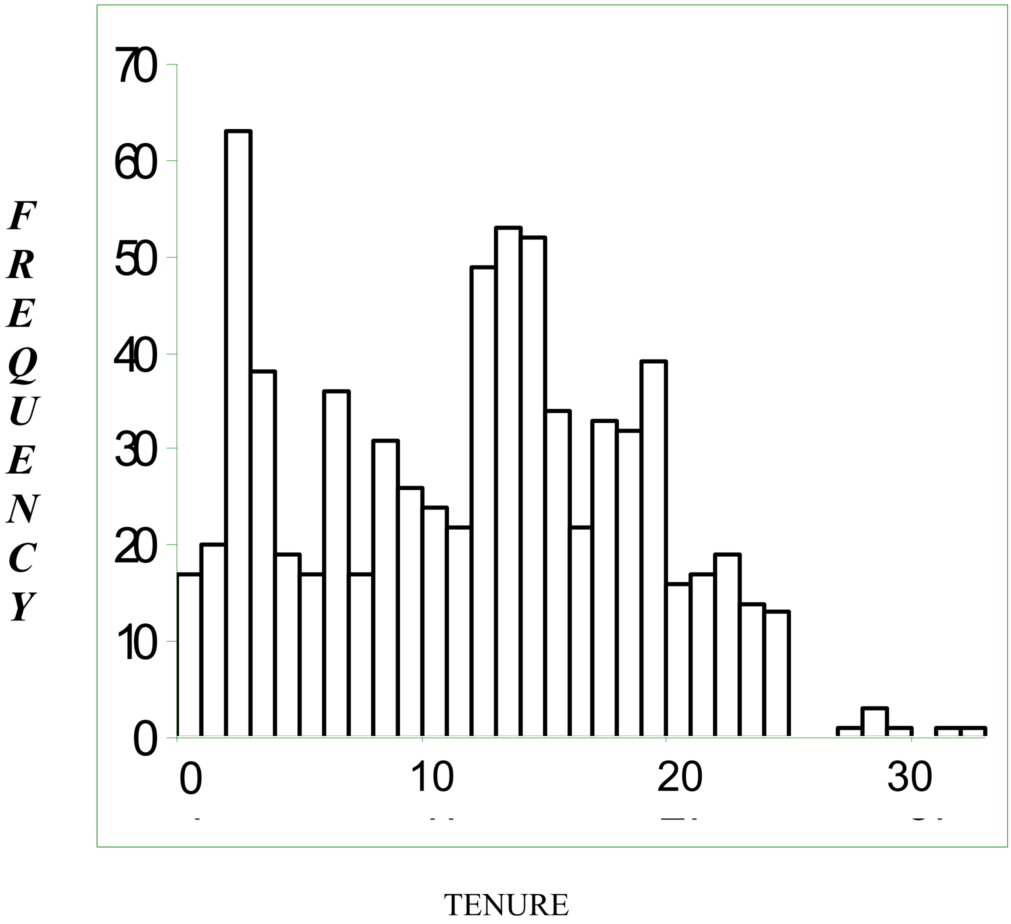
Appendix 5: Central Bank of Colombia – Point Factors



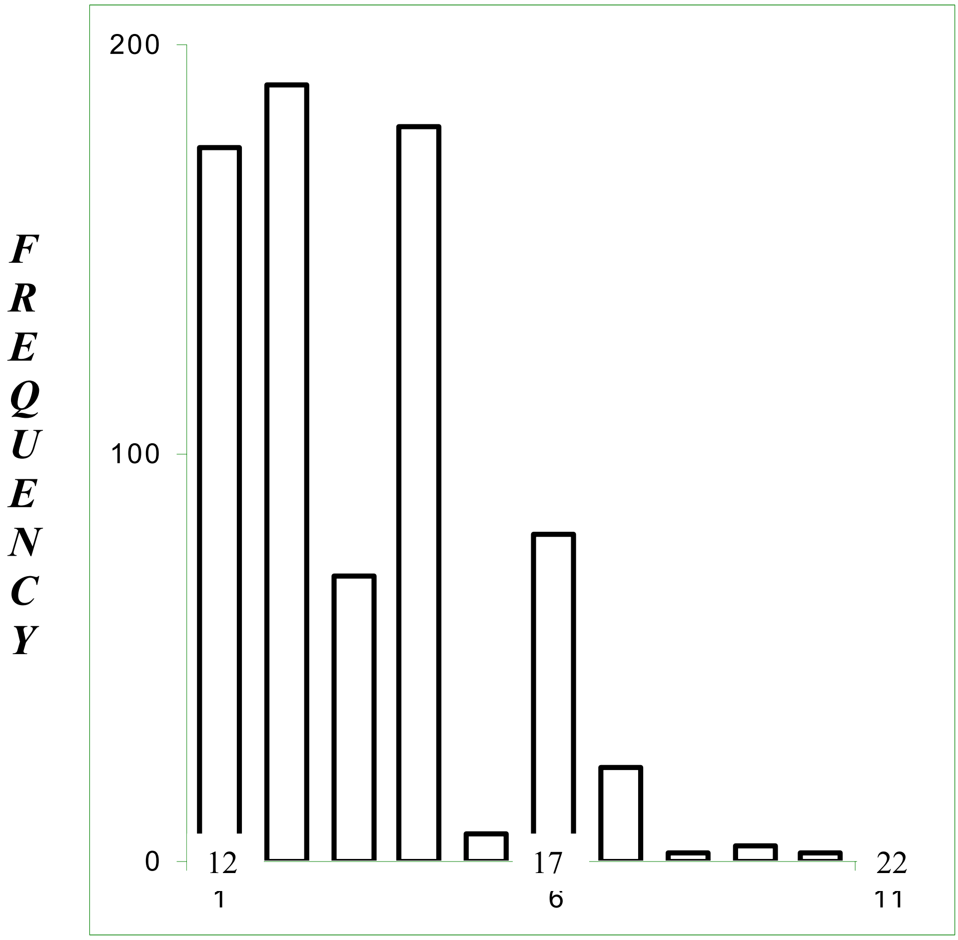
Appendix 6: Central Bank of Colombia - Wages



Appendix 7: Central Bank of Colombia - Histogram of Tenure



Appendix 8: Central Bank of Colombia - Histogram of Position



POSITION OR LEVEL

Appendix 9: Final Regression Equation

WAGES = - 5222 + 455 POSITION + 26.8 TENURE + 1.49 POINTFAC + 175 PA

Predictor	Coif	StDev	T	P
Constant	-5221.6	249.5	-20.93	0.000
POSITION	454.55	14.37	31.64	0.000
TENURE	26.824	3.030	8.85	0.000
POINTFAC	1.48719	0.09633	15.44	0.000
PA	174.66	50.45	3.46	0.001

S = 539.0 R-Sq = 85.7% R-Sq (adj) = 85.6%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	4	1278507271	319626818	1100.39	0.000
Error	736	213784199	290468		
Total	740	1492291470			

Source	DF	Seq SS
POSITION	1	1196976200
TENURE	1	8721734
POINTFAC	1	69328024
PA	1	3481313

Unusual Observations

Obs	POSITION	WAGES	Fit	StDev Fit	Residual	St Resid
1	22.0	9095.0	10454.6	205.9	-1359.6	-2.73RX
2	22.0	9095.0	10216.4	204.4	-1121.4	-2.25RX
3	22.0	9095.0	10298.3	204.5	-1203.3	-2.41RX
4	22.0	9095.0	10248.8	203.2	-1153.8	-2.31RX
5	22.0	9095.0	10394.8	203.7	-1299.8	-2.60RX
6	22.0	9095.0	10336.2	203.2	-1241.2	-2.49RX
7	21.0	8102.0	7534.5	81.7	567.5	1.07 X
8	21.0	8419.0	7978.1	91.4	440.9	0.83 X
12	20.0	8343.0	6910.8	70.3	1432.2	2.68R
13	20.0	7862.0	7127.6	84.7	734.4	1.38 X
22	18.0	3746.0	5021.8	56.2	-1275.8	-2.38R
33	18.0	7123.0	5031.2	44.1	2091.8	3.89R
47	17.0	5133.0	4089.1	102.3	1043.9	1.97 X
52	17.0	5320.0	4181.1	58.7	1138.9	2.13R
55	17.0	5980.0	4270.1	44.5	1709.9	3.18R
81	17.0	6038.0	4534.0	38.0	1504.0	2.80R
82	17.0	2372.0	4330.2	36.8	-1958.2	-3.64R
95	17.0	6989.0	4525.7	37.7	2463.34	58R
99	17.0	5519.0	4233.3	47.5	1285.7	2.39R
100	17.0	5519.0	4204.3	49.8	1314.7	2.45R
101	17.0	6327.0	4725.5	38.5	1601.5	2.98R
107	17.0	5519.0	4325.8	46.5	1193.22	22R
119	17.0	2503.0	4448.8	67.9	-1945.8	-3.64R
126	17.0	6571.0	5048.3	62.2	1522.72.	84R
127	17.0	6766.0	4800.4	63.1	1965.6	3.67R
139	15.0	1994.0	2899.8	79.5	-905.8	1.70 X

Appendix 10: Magnitudes

$$Elasticity = \frac{\%\,Dependent\,\mathrm{var}}{\%\,Independent\,\mathrm{var}}$$

$$Position = 454\frac{14{,}2}{2.813} = 2.292$$

$$Tenure = 26{,}8\frac{11{,}6}{2.813} = 0{,}111$$

$$Po\,\mathrm{int}\,fac = 1{,}4872\frac{391}{2.813} = 0{,}207$$

$$PA = 174{,}7\frac{3{,}96}{2.813} = 0{,}246$$

Among variables tenure, point factors and performance appraisal (PA), performance appraisal has the greatest elasticity.

Appendix 11: Unrestricted Model

LEVEL 13 - UNRESTRICTED MODEL (Includes all variables)

WAGES = -116 + 30.0 TENURE + 5.14 POINTFAC - 8.7 GENDER - 1.59 AGE + 94.8 PA

Predictor	Coef	StDev	T	P
Constant	-116.1	201.7	-0.58	0.565
TENURE	30.048	2.298	13.08	0.000
POINTFAC	5.1447	0.3925	13.11	0.000
GENDER	-8.71	32.42	-0.27	0.788
AGE	-1.590	2.005-0.79	0.429	
PA	94.78	49.67	1.91	0.058

S = 202.7 R-Sq = 62.3% R-Sq (adj) = 61.2%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	5	12535676	2507135	61.03	0.000
Error	185	7600024	41081		
Total	190	20135701			

Appendix 12: Restricted Model

LEVEL 13 - RESTRICTED MODEL (Excluding Age and Gender)

WAGES = -160 + 30.1 TENURE + 5.12 POINTFAC + 90.4 PA

Predictor	Coef	StDev	T	P
Constant	-159.8	193.7-0.83	0.410	
TENURE	30.132	2.280	13.22	0.000
POINTFAC	5.1246	0.3903	13.13	0.000
PA	90.38	49.09	1.84	0.067

S = 202.0 R-Sq = 62.1% R-Sq (adj) = 61.5%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	3	12504083	4168028	102.13	0.000
Error	187	7631618	40811		
Total	190	20135701			

Partial F-test

Ho: Variables are not important

Hi: Variables are important

SSE (Restricted) - SSE (Unrestricted) / DF (Restricted) - DF (Unrestricted)

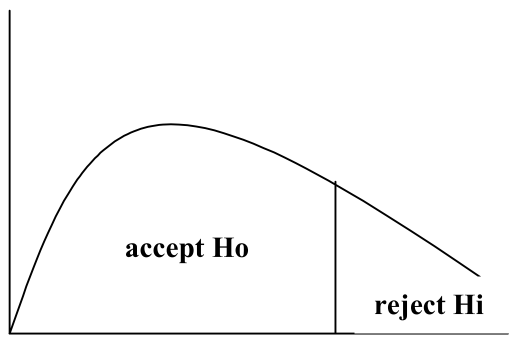
SSE (Unrestricted) / DF (Unrestricted)

(31594) / (2)

....

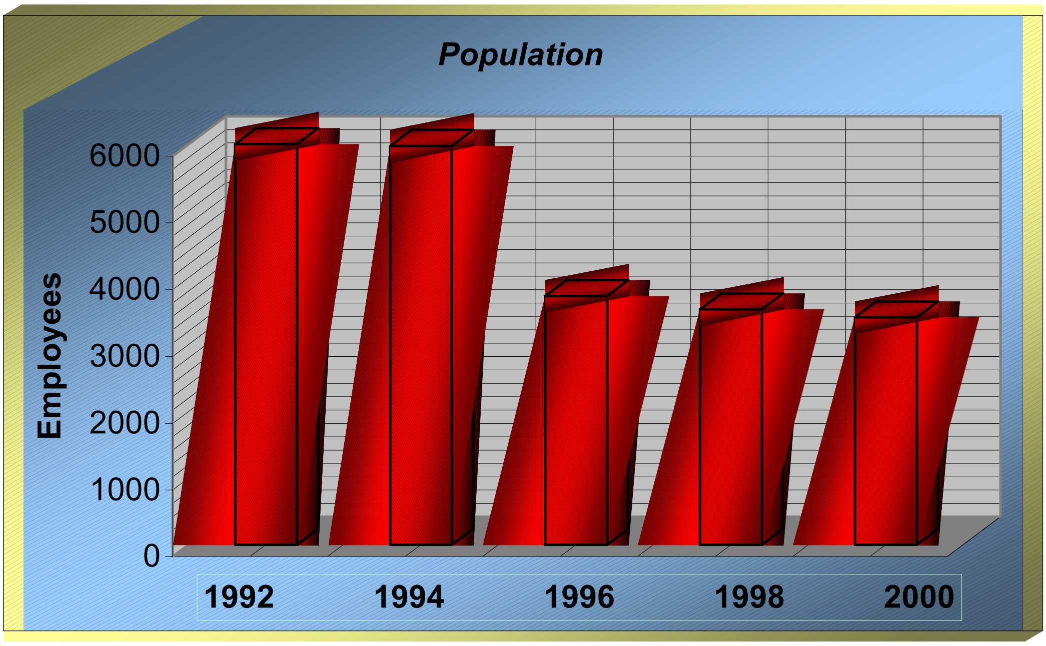
(15797)

= 0.3845

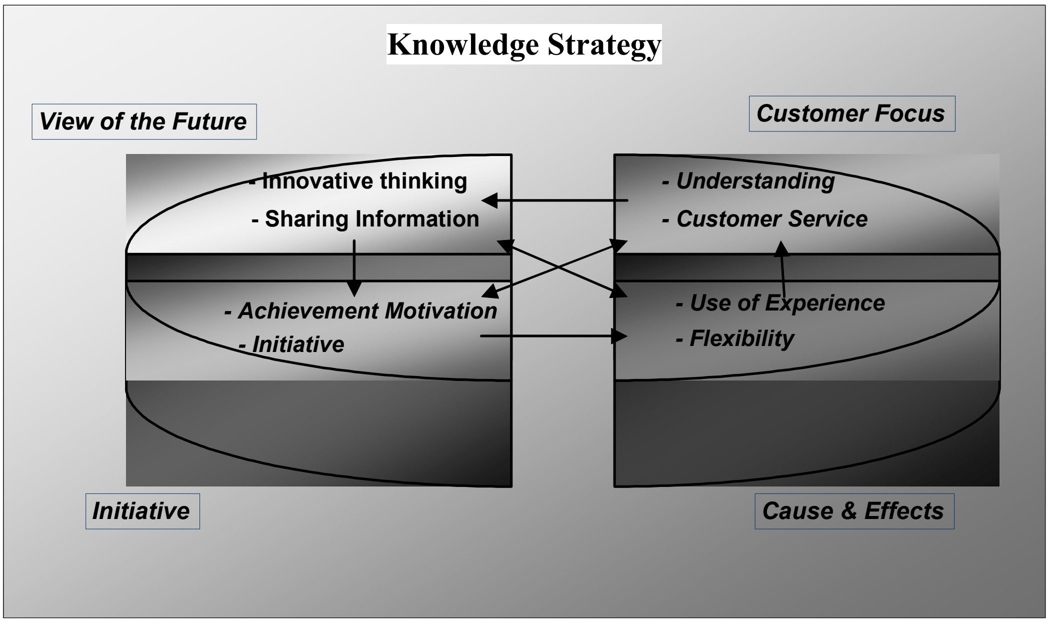


F-critical value = 2.6

Appendix 13: Central Bank of Colombia – Population



Appendix 14: Knowledge Strategy



Appendix 15: Currículum Vitae

Name	Javier Adolfo Sepúlveda Quintero
Date of birth	20 may 1962
Nationality	Colombian
Marital Status	Married

WORK EXPERIENCE

2003 to the present	Central Bank of Colombia, Treasury and Industrial Affairs, Cash Bureau Project Manager.
1999-2002	Central Bank of Colombia, Treasury Department Deputy Director. (To direct, plan, develop, and coordinate money issue studies to maintain the right amount of banknotes and coins in the domestic economy)
May/99-Aug/99	Central Bank of Colombia, HR Assessor. (To advice, design, develop, and coordinate HR projects to improve the HR function that allows higher levels of company productivity).
Nov/93-Sep/96	Central Bank of Colombia, Head of Compensation and Rewards. (To plan, develop, and direct compensation studies to maintain the internal equity and external competitiveness).
Jan/89-Oct/93	Central Bank of Colombia, Professional of Special Studies. (To develop studies and statistical analysis in order to make administrative decisions related to Human Resource Management).
Mar/86-Dec/88	The State Bank, Analyst of Economic Planning. (To analyze and propose economic alternatives to improve the performance of the Bank).

EDUCATION

Jun/99-Dec/03	University of St.Gallen, Multicultural Management Doctoral Program, Leadership and Management Institute, Switzerland.
Spring/97-Spring/99	University of Minnesota, Master in Human Resources and Industrial Relations, Carlson School of Management, United States.
Jan/91-Oct/92	Rosario University, Specialization in Business Administration, Colombia.
Jun/81-Dec/86	Externado University, Bachelor of Arts in Economics, Colombia.

LANGUAGES

Spanish (mother tongue)
English (fluently)

TEACHING EXPERIENCE

Jun/99 to the present	Externado University, Organizational Analysis an International Perspective Seminar. M.A. Human Resources.
Jun/99 to the present	Externado University, Learning Organizations seminar. M.A. Managerial Human Resources.
Jun/99 to the present	Externado University, Human Resources Competence in the Future seminar. M.A. Managerial Human Resources.
Jan/02 to the present	Externado University, International Economic Politics seminar. Master in International Issues and Politics.
Sep/99 to the present	Externado University, International Economic Politics seminar. Specialization in International Economy.
Jun/92 to the present	Externado University, Macroeconomics. Finance and International Relations