

**"REENGINEERING AND ORGANIZATIONAL
CHANGE: LESSONS FROM A COMPARATIVE
ANALYSIS OF COMPANY EXPERIENCES"**

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**Reengineering and
Organizational Change:
Lessons from a Comparative
Analysis of Company Experiences**

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Abstract

Business Process Reengineering is fast becoming the terminology of many companies' efforts to reexamine their businesses and change to improve their competitiveness. As such it is also the object of numerous reports and studies which define frameworks and suggest methodologies for organizational change. This report compares and contrasts several companies' efforts in implementing reengineering/change programs. The successful elements of various change programs as well as some of the challenges and "pitfalls" of the companies' efforts are emphasized.

1. Introduction

In today's business environment, customer needs evolve at an extremely quick pace due to the increased mobility of resources and to the development of media and technology. A constant challenge faced by today's management is *change*. In such a context, restructuring alone is proving increasingly insufficient in achieving and sustaining the improvements needed to remain competitive.

As organizations strive to be more competitive in today's challenging business environment, more of them are taking a radical look at what makes them successful. Some refer to this type of effort as Business Process Reengineering (henceforth referred to as BPR). As the phrase becomes more well-known, we see more definitions of it and it is useful to mention some of them to facilitate setting the context for this work:

"Reengineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed."¹

"Reengineering has been simply defined as the analysis and redesign of business and manufacturing processes to eliminate that which adds no value"²

"Reengineering is a radically new process of organizational change that many companies are using to renew their commitment to customer service"³

Some common aspects can be identified in most definitions of reengineering. For one, there is an emphasis on rethinking different aspects of the business and existing work practices:

"It isn't about fixing anything, [it] means starting all over, starting from scratch"⁴

Much of the motivation for this rethinking seems to arise from observations that many current business practices are outdated and are no longer either suited for today's competitive situation or matched to the capabilities offered by current technology:

"The problem appears to be...developed systems of production that were remarkably successful in their time but are no longer suited to a changed world"⁵

¹Hammer M. and Champy, J, *Reengineering the Corporation: A Manifesto for Business Revolution*, Harper Business, 1993.

²Parker, K., "Reengineering the Auto Industry," *Manufacturing Systems*, January, 1993.

³Janson, "How Reengineering Transforms Organizations to Satisfy Customers," *National Productivity Review*, Winter 1992-93, pp. 45-53.

⁴Hammer M. and Champy, *op. cit.*

⁵Keith, G., "Reengineering History: An Analysis of Business Process Reengineering," *Anglo American Insurance Company Limited*, October, 1993.

Also central to reengineering is an emphasis on processes. BPR proceeds under the assumption that a business can be defined as a set of inter-related processes that are logically and continuously evolving to satisfy a set of common customer oriented objectives. A process from this point of view could be defined as

- "... a sequence of activities that fulfills the needs of an internal or external customer"⁶
- "... a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer"⁷

In addition, today BPR itself is becoming a process, an ongoing effort of *analyzing and radically redefining the key processes* of a company. Regardless of how one views BPR and its components, its ultimate goal is to enable companies to achieve radical performance gains. The objective(s) of performance gains may differ from company to company: cost for some, speed for others and quality for yet others.

2. Objective & Approach of Study

BPR has generated significant controversy in the literature. Some such as Drucker⁸ have advocated that it is: "...new and it has to be done", while others have been quick in dismissing it as a passing management fad. Some⁹ have taken the middle ground and have identified aspects of BPR which are new and innovative and other aspects which are "old" and have been seen before.

The objective of this study is not to debate whether BPR is new or old, but rather to analyze approaches, methodologies, tools and other supports that have been used in various BPR/change projects. By studying their similarities and differences, we hope to better understand the advantages and disadvantages and hence applicability of certain approaches to different contexts.

The approach taken and reported in this paper was to:

1. Examine the prevalent frameworks in use today and choose/develop one within which to analyze and characterize some companies' BPR/change efforts,
2. Analyze according to the framework examples of BPR/change projects from several companies to learn the various existing problems, desired goals, approaches, methodologies, and tools applied,
3. Summarize the findings of the analysis according to similarities and differences among the companies, their problems, and their efforts in order to draw conclusions.

⁶Harrison, D.B. and Pratt, M.D., "A Methodology for Reengineering Businesses," Planning Review, March-April 1993, pp. 6-11.

⁷Hammer and Champy, *op. cit.*

⁸Drucker, P., on the cover of: Hammer, M. and Champy, J., *op. cit.*

⁹Earl, M.J., The Old and the New of Business Process Redesign, Working paper # CRIM WP94/6, London Business School, 1994.

3. Framework

Many frameworks to analyze businesses and define change programs have been developed, mostly by authors of management theory and within the major management consultancies. Two representative frameworks are the 7-S model and the Business Integration model.

Developed in the late 1970s, the 7-S model¹⁰ emphasizes the importance of achieving consistency and balance between the seven descriptive elements (7S's) for understanding the dynamics of organizational change and developing goals for a change program. The seven S's are:

- **Strategy:** a coherent set of actions aimed at gaining a sustainable competitive advantage (and as such the approach to allocating resources).
- **Skills:** distinctive capabilities possessed by the organization as a whole as distinct from those of an individual.
- **Shared Values:** ideas of what is right and desirable (in corporate and/or individual behavior) as well as fundamental principles and concepts which are typical of the organization and common to most of its members.
- **Structure:** the organization chart and related concepts that indicate who reports to whom and how tasks are both divided up and integrated (reporting relations and management responsibilities).
- **Systems:** the processes and procedures through which things get done.
- **Staff:** the people in the organization, considered in terms of corporate demographics (not individual personalities), i.e., their skills and abilities.
- **Style:** the way managers collectively behave with respect to use of time, attention and symbolic actions.

The Business Integration Model¹¹ (see Figure 1) is based on the alignment of an enterprise's people, processes and technology with its strategy to improve business performance. It is built upon the principle that a consistent and comprehensive organizational change program takes place around the following four aspects of the organization:

- **Strategy:** establish a customer focused strategic vision that will optimize long-term success;
- **People:** organize, motivate and empower people to succeed;
- **Business processes:** redefine and streamline business processes to implement strategic vision and to achieve maximum effectiveness and efficiency of all resources;

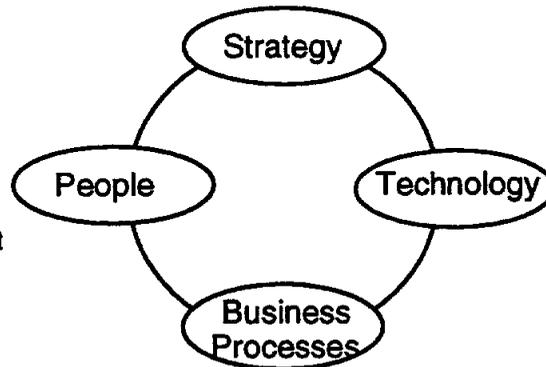
¹⁰Pascale, R.T. and Athos, A.G., "The Art of Japanese Management", Simon & Schuster, 1981; McKinsey & Company

¹¹Andersen Consulting

- **Technology:** apply appropriate technology to support streamlined process, to provide information and tools to support the entire work force and to enhance customer/supplier relationships.

- Market/competitive strategy
- Business strategy
- Organization strategy
- Information and technology strategy

- Organization structure
- Job structure and content
- Career management
- Leadership style
- Performance management
- Culture



- Digital imaging
- Knowledge-based or expert systems
- Telecommunications and networks
- Interactive video disk
- Client server and graphical user interfaces
- Groupware

- Key process definitions
- Outcome definitions
- Workflows
- Performance measures

Figure 1: The Business Integration Model

Our objective in using a framework in this research was primarily:

- to facilitate consistent structuring and analysis of a set of very different business situations and change programs, and
- to enable us to draw comparisons and conclusions among them.

Building on the important aspects of the above mentioned and other frameworks explored we adapted them to a structure that best serves our objectives, namely to emphasize: 1) the business context at the start of the program and the companies' goals at that time, 2) the efforts undertaken and 3) the results obtained. Thus, the adopted framework (see Figure 2) classifies the change efforts under *context*, *goals*, *successful elements*, *challenges/pitfalls* and *results* achieved. Within these classifications, successes and pitfalls are analyzed in terms of culture, process, structure and technology.

The *context* highlights external and internal characteristics of an organization's need for change and the constraints it may face in undertaking such change. External elements include the economy, the industry, the competition, the marketplace, customer demands, etc.; internal elements include historical progression of the organization, results of previous change efforts, cultural aspects, etc.

The *goals* stated are those of the change program undertaken and are not necessarily the organization's high-level business goals. Many of them, in fact, lead to long term or continuous improvement of the firm but are being considered in this report because of their importance to the changes being designed and implemented.

The *successful elements and challenges/pitfalls* of the various change programs have been examined according to a framework that differentiates:

- *Culture*: shared values and experiences and common goals that "... a group learns over a period of time as that group solves its problems of survival in an external environment and its problems of internal integration";¹²
- *Processes*: a sequence of activities that fulfills the needs of an internal or external customer,¹³ the way work is done within the organization and the way the BPR/change project is actually realized;
- *Structure*: can enable or prevent the necessary communication, knowledge transfer and customer contact; it defines who communicates with whom and how as well as the degree of individual or collective responsibility and accountability;
- *Technology*: plays a critical role in the generation, transfer and management of information.

Table 1 depicts the different elements which were used in this study to identify different aspects of culture, process, structure and technology.

4. Assumptions and Scope

Thirty-five examples of BPR/change efforts from the literature were selected as the initial sample for this study. Nineteen of the selected examples had to be discarded due to a lack of adequate information on BPR/change efforts in their respective literature references. The remaining sixteen companies were studied according to the defined framework (Figure 2). A list of the companies analyzed along with their major references is given in Appendix I.

Appendix II of the paper contains the summary analyses of the individual BPR/change efforts according to our framework. The results reported in the *Results* section of each summary analysis in Appendix II are indicators of how the business and the organization have changed. This type of result was not always available as some of the examples studied were too recent at the time of writing. In these instances however, intermediate results are included as successful elements or challenges/pitfalls.

To help draw conclusions from the analysis, the companies studied were classified according to their situation at the onset of their change efforts. The companies were split into the following four classes:

- *Good*: positive financial performance, sustained growth, successful image in the marketplace, good market position.
- *Average*: standard financial performance, tough competition, unanticipated environmental changes.

¹²Schein, E. H., "Organizational Culture," *American Psychologist*, February, 1990, pp. 109-119.

¹³Harrison, D.B. and Pratt, M.D., *op. cit.*

- *Poor*: worsening financial performance, significant environmental changes, grossly lagging behind competitors, lack of recent business reevaluation, obsolescence.
- *Crisis*: serious financial difficulties, dramatic environmental changes, floundering strategies, poor management, lack of skills.

According to the above definition, the sixteen chosen companies were divided as shown in Table 2. Table 2 also lists the time frames for their change efforts.

FRAMEWORK

Context

- Highlights external and internal characteristics of the organization's need for change and the constraints it may face during such change.

Goals

- Goals of the change program undertaken, not necessarily the organization's high-level business goals.



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Shared values and experiences and common goals that "... a group learns over a period of time as that group solves its problems of survival in an external environment and its problems of internal integration"¹⁴ 	
Process	<ul style="list-style-type: none"> • "A sequence of activities that fulfills the needs of an internal or external customer"¹⁵, the way work is done within the organization and the way the BPR project is actually realized. 	
Structure	<ul style="list-style-type: none"> • Can enable or prevent the necessary communication, knowledge transfer and customer contact; defines who communicates with whom and how as well as the degree of individual or collective responsibility and accountability. 	
Technology	<ul style="list-style-type: none"> • Plays a critical role in the generation, transfer and management of information. 	



Results

Indicators of how the business and the organization have changed as a result of the change program.

Figure 2: The framework adopted in this study

¹⁴Schein, E. H., *op. cit.*

¹⁵Harrison, D.B. and Pratt, M.D., *op. cit.*

Culture	Process	Structure	Technology
<p>Shared values and experiences and common goals of a group of people</p>	<p>How and when actions are implemented</p>	<p>Who communicates with whom and how; responsibility & accountability</p>	<p>How the organization uses technology to support itself</p>
<ul style="list-style-type: none"> • level of trust • incentive programs • amount of information sharing • degree of formality • sense of urgency • team vs. individual orientation • degree of empowerment and autonomy • customer orientation • proven vs. pioneer mentality • quality focus • ability/willingness to change • sense of ownership • clarity of mission/objectives • leadership • looking to external sources 	<ul style="list-style-type: none"> • control methods • performance objectives • training and education • rules and procedures • team vs. individual • degree of process ownership • abrupt change vs. pilots • focus on and responsibility for customer • task vs. process orientation • problem solving process • integration of functions 	<ul style="list-style-type: none"> • degree of delegation • career path definition • existence and formality of boundaries • ties to suppliers and other external firms • decision-making process • hierarchy vs. network vs. matrix, etc. • degree of empowerment and autonomy • formality of rules and communication • physical layout and geography • integration of functions • clarity of mission/objectives 	<ul style="list-style-type: none"> • standardization • degree of automation • ease of information sharing • availability of tools • maintainability • speed of development • effectiveness • efficiency • technological advancement • technology readiness

Table 1: Elements of our descriptive framework

Case	Situation at the onset	Time Frame	Time Spent (years)
Hallmark	Good	1989-1991	2
Singapore Airlines	Good	1993-1994	1
Bell Atlantic	Average	1991-1993	2
Frito Lay	Average	1986-1990	4
Kodak	Average	1985-1990	5
Nissan	Average	1985-1990	5
Wal-Mart	Average	1979-1990	11
Daimler Benz Holding	Poor	1991-1993	3
Quantum	Poor	1988-1991	3
Rank Xerox UK	Poor	1986-1991	5
Reuters	Poor	1990-1992	2
British Airways	Crisis	1981-1990	9
Capital Holding Corp.	Crisis	1988-1992	4
Phillips 66	Crisis	1985-1988	3
Trustees Savings Bank	Crisis	1989-1992	3
Taco Bell	Crisis	1983-1992	9

Table 2: Classification of examples analyzed

The analyses and conclusions of this research are largely based on the descriptions of the companies' change efforts in the literature (Appendix I). Though the descriptions in the literature references are not exhaustive, we believe that the overall conclusions drawn are representative of problems and issues encountered in several BPR/change situations.

We have included a broad range of company and industry types as the object of the study is not to draw conclusions for a particular industry. We leave it to the reader to determine the applicability of our conclusions to his or her particular organization.

5. Summary of a Comparative Analysis

While many successful elements and challenges of the companies' change programs have been described in the literature, we concentrate our summary on those that are common among several companies.

Culture

Change in the culture of the company is a common theme in most of the BPR/change efforts studied. Some organizations such as Taco Bell underwent

a radical shift in their culture. Such a shift was intimately related to the organization's rethinking of its fundamental business model. Taco Bell moved from considering itself as a manufacturer of Mexican-American fast-food to being a retailer of food. The shifts in its basic business paradigm from "manufacturer" to "retailer" and of its product from the niche of "Mexican-American fast food" to "food in general" served to drive through a series of multi-dimensional changes within the company which radically changed its culture. For example, Taco Bell's restaurants went from being points of manufacturing to points of distribution, and its managers evolved from a procedure-driven control mode to a more market-driven entrepreneurial management style.

While Taco Bell changed its culture starting from a crisis situation, the need for a radical shift in the culture and values was not as explicit in many other organizations, especially those which were starting from a healthy condition. In fact, companies such as Hallmark explicitly reaffirmed some existing cultural values and norms which would **not** change during the change program. This reaffirmation was seen as providing a valuable bedrock of stability during the change efforts.

Regardless of the degree of cultural shift, some aspects are common to most organizations. First there is a need for flexibility and adaptability within the organization especially for those that were in a relatively good situation at the start of the change program. In this regard, Hallmark was successful by introducing a theme called "The Journey," through which all people in the organization were made to understand that BPR/change was necessary, that it was not a planned process and that it was a never ending process. Singapore Airlines encouraged employees to be flexible and encouraged them to look for new ways to do things. They challenged employees to go beyond the rules and dare to innovate.

Second, coherent changes to incentive programs are key to be able to adapt the organization's culture. Some examples include Nissan that changed its promotion/pay policies from a seniority basis to a performance basis to promote innovative ideas, Quantum that began to link performance assessment to teams instead of to individuals, and Reuters, that began to relate its commission structure to the successful installment of an order instead of upon order-taking.

Third, the customer is a focal point driving the cultural change process. The customer is seen as the central "stake in the ground" around which the cultural changes can coalesce. Nissan issued a statement of corporate philosophy concerning the need to be market driven, to anticipate trends, to understand and be sensitive to customer needs, and to think globally. Some organizations realized that they did not really know the customer's true needs. The conscious discovery of the customer's true needs served to galvanize the culture shift within the organization. For example, Taco Bell discovered that the true need of the customer was simply "good, hot, clean food" and not other things like large restaurants which they had assumed to be of value to the customer.

Fourth, most companies especially those that are performing poorly at the start of their efforts, also emphasize the need to clarify corporate goals and recognize the need for radical change. After its flotation on the stock market,

TSB had set the goal to become the fifth largest clearing bank in the UK. This implied a move away from its core customer base of down-market retail customers to up-market retail and corporate customers. Such a move accelerated TSB's crisis as its cost/income ratio increased significantly. TSB's current management which turned around the company starting from 1989, clarified the corporate mission to be the **leading retailer** of financial products in the UK and used this goal to drive through the changes in the subsequent years.

Clarifying corporate goals also often implies setting a stretch target for the organization. TSB moved its goal from becoming the fifth largest UK clearing bank to being the leading retailer of financial products in the UK. Taco Bell's corporate goal evolved from being number one in the niche of Mexican-American fast food to being number one in the entire fast food industry to now being number one in the "share of stomach"! Stretch goals motivate the cultural shift within the organization and highlight the need for radical change.

Process

A focus on identifying and improving processes is pervasive through all of the companies studied in this research. However, the scope and maturity of the business process architectures and the nature of changes within processes varies within organizations.

While the need for organizations to focus on their core processes has been recognized in the literature¹⁶, few organizations in our study have explicitly focused on identifying their core processes and redefining their businesses in terms of these core processes. The definition of core processes and an appropriate business process architecture is a non-trivial, evolutionary procedure requiring a certain level of organizational maturity in process knowledge and awareness.

For example, when Rank Xerox first implemented Leadership Through Quality in the mid-1980s, it focused on process identification and improvement within tasks. As employees became familiar with work processes, Rank Xerox applied it to large scale, functional processes. Later Rank Xerox moved into cross-functional and cross-organizational processes. This progression in understanding its processes enabled it to define its core Business Process Architecture in the early 1990s consisting at a macro level of three core processes: the Customer Interface Process, the Logistics Process and the Product Delivery Process. These core processes define an integrated process architecture for the organization, which together with their 76 sub-processes serve as the template for Rank Xerox's change efforts. The process architecture has been used to define new management roles and responsibilities such as process sponsors and process owners. The core processes are also seen to provide the context for empowering people within the organization via cross-functional process teams and facilitating the cultural change.

Most organizations are not as thorough or systematic like Rank Xerox with the definition of their business process architectures. Typically, they focus on

¹⁶ Hammer, M. and Champy, J., *op. cit.*

identifying and improving one or two key high leverage processes. For example, Hallmark chose to improve the process of new product introduction. Improvements in this process via the reduction of non-value adding steps and the creation of cross-functional work teams helped it to dramatically reduce the time to market for new products from around 3 years to less than a year.

The extent of change within processes varies from streamlining (incremental improvements) to the creation of completely new processes (process innovation). Bell Atlantic streamlined its process for fulfilling a connection request and hooking up service to reduce the time taken from 20 days (involving 13 hand-offs between work groups) down to 3 days. TSB in contrast faced the problem of trying to increase sales through branches in the absence of a well established sales process. Thus, TSB had to design, pilot and test a completely new sales process within the branches. The importance of implementing a pilot project approach is demonstrated by the number of companies that mention it as a critical factor to achieve early wins and strengthen support for the redesign of processes.

Both operational and management processes are addressed in companies. Taco Bell in its shift from a manufacturer to a retailer moved major parts of the kitchen away from each restaurant and consolidated them in a central location to take advantage of economies of scale in the production process. Complementing this redesign of the operational production process, Taco Bell also changed its management process by delayering the organization, changing the roles of restaurant managers to one of general managers and introducing new market-oriented management positions in its hierarchy. TSB also made similar changes in its operational and management processes. It moved major parts of its back office processes away from branches to centralized customer service centers. Simultaneously, TSB also delayered the organization significantly and redefined roles and responsibilities at different levels of the management hierarchy.

Regardless of the starting state of the organization and the nature of its change efforts, processes are seen as useful for focusing the minds and energies of the organization on the customer. The redesign of appropriate processes can yield significant enhancements in delivered customer value and increase the overall efficiency and effectiveness of the organization.

Structure

Significant changes in structures accompanied most change efforts. A common theme in companies' experiences is an emphasis on cross functional work teams. Many organizations such as Nissan, Hallmark, Bell Atlantic, Reuters and Capital Holding formed cross-functional teams to help redesign processes. The cross-functional nature of teams helped to increase intra-process awareness and ownership for the change efforts. The emphasis on cross-functional teams requires a significant change in the nature of skills, education and performance packages. Nissan, Reuters and other organizations all reworked their career systems to be consistent with these new roles and responsibilities. Significant improvements in time, costs and quality also resulted from cross-functional collaboration. For example, Hallmark reduced the time taken to create and market new products from two to three years down to less than a year.

Cross-functional teams in most organizations were formed for a specific period of time to focus on a particular change effort. However, some organizations such as Rank Xerox and Quantum emphasized the formation of permanent cross-functional business teams taking end-to-end responsibility for specific business processes. These changes were dramatic because in most examples they implied a move from a classical "command and control" organization consisting of discreet functions such as Sales, Marketing, Service, Manufacturing, Personnel and Finance, which were organized on a formal hierarchical basis to a much more cross-functional and participative organization where team orientation and self managed work groups became commonplace. The formation of this type of a process-based structure (i.e., based on cross-functional business teams taking end-to-end responsibility for processes) also raised important questions regarding the relation between and the separation of responsibilities between the new process-based structure and the traditional functional departments.

Complementing the move towards cross-functional teams, is a tendency to move towards flatter organizations with a larger span of control at each level. In Phillips 66, the CEO had nine people reporting to him in the new structure as compared to two previously. In Taco Bell, the span of control for District Managers moved from about five to six restaurants to about fifty in the new structure. Delaying and the increase in the span of control requires an appropriate change in the management style.

Job redefinition is an integral part of structural changes in all companies. District Managers in Taco Bell could no longer afford to closely oversee (and sometimes interfere in) the functioning of the fifty restaurants as they could when they had five restaurants reporting to them. Their role shifted from one of controlling to coaching Restaurant Managers and from enforcing procedures to focusing on market development in their own regions. Consequently, their titles were changed from District Managers to Market Managers to reflect the new emphases in their job content. In addition, Restaurant Managers had to be empowered to make all general management decisions regarding the functioning of their restaurants.

Consistent and effective communication of plans and top management commitment were cited by most companies. Personal commitment and communication including visits by the company president helped to communicate the right messages throughout Nissan. Hallmark successfully used its "The Journey" campaign to communicate plans and were conscious also to communicate what would *not* change during the change efforts.

Technology

All companies recognized and emphasized the need for business objectives to drive Information Technology (IT) requirements and made sure to tailor the solution to the business goals and desired changes. Simply automating existing tasks with new IT solutions is not seen as adding substantial long-term value.

In many organizations, information systems supporting the existing work processes were fragmented. For example, the process for completing a new service request within Bell Atlantic required transfers across twenty seven

different IT systems. Thus the change efforts required the definition and implementation of new systems to support the new work processes.

IT enabled the change efforts in many organizations. In Phillips 66, the CEO provided the leadership for the creation of a new executive information system to enable himself and his senior management team to manage the expanded span of control. Taco Bell created a new IT system called TACO (Total Automation of Company Operations) to enable the Restaurant Managers to manage the restaurants effectively in their new jobs and the Market Managers manage each of the fifty restaurants for which they became responsible. Hallmark developed a new IT system to obtain more accurate marketing information from the retail stores and feed the information in real time both to management and the stores. Frito-Lay pioneered a system based on hand-held computers to drive through a micro-marketing strategy. TSB developed an expert system to help overcome the skill deficiencies of front-line branch sales staff and drive through an increase in branch sales effectiveness of over 300%.

The impact of IT on the change efforts can be characterized as organizationally neutral. In some organizations, such as Taco Bell, it helped to empower managers and upgrade jobs. In some other organizations such as TSB, it helped to automate and move decisions out of bank branches and thus downgrade the jobs of branch managers. Due to this organizational neutrality, it is important to have a strong business leadership and an effective partnership between the business and IT divisions to ensure that IT does have the desired business impact. Most successful implementations of IT such as in Frito-Lay and Phillips 66 were characterized by such business leadership and organizational partnership.

Overall Trends

The common elements in the different BPR/change efforts along the different elements of our framework (Figure 2) are summarized in Table 3. It is difficult to draw definitive conclusions from the limited sample of our study about significant differences between approaches to BPR/change in successful and poorly performing companies. However some initial trends can be identified as depicted in Figure 3 (direction of the arrows points out the increasing relevance of the stated aspect).

Companies starting from a crisis situation¹⁷ exhibit a stronger reorientation towards the customer with increased redefinition of jobs and an emphasis on cross-functional teams and empowerment. This perhaps reflects the urgent need to make radical changes in such organizations. In contrast, successful companies¹⁸ embarking on BPR/change projects seem to emphasize the need for adaptability to a greater extent. The focus on processes, pilot projects, top management commitment and effective communication of plans seems to be equal in all companies.

¹⁷ Taco Bell, TSB, Phillips 66

¹⁸ Hallmark, Singapore Airlines

Culture	Process	Structure	Technology
<ul style="list-style-type: none"> • Recognition of the need for flexibility and adaptability • Coherent changes to incentive programs • Customer as focal point of cultural change • Clarify corporate goals • Recognition of the importance of change 	<ul style="list-style-type: none"> • Identify core processes • Define business process architecture • Seek improvements in high leverage processes • Process streamlining and process innovation • Pilot project approach • Business and management processes • Focus on customer 	<ul style="list-style-type: none"> • Cross-functional teams • Process-based structures • Relation between functional and process-based structures • Flatter hierarchies • Redefinition of jobs • Empowerment and delegation • Communication of plans • Top management commitment 	<ul style="list-style-type: none"> • Recognition of the need for business objectives to drive IT requirements • Specific solutions according to goals and changes implemented • Integration of fragmented IT systems • Organizationally neutral • Business leadership • Effective partnership between business staff and IT specialists

Table 3: Summary of successful elements

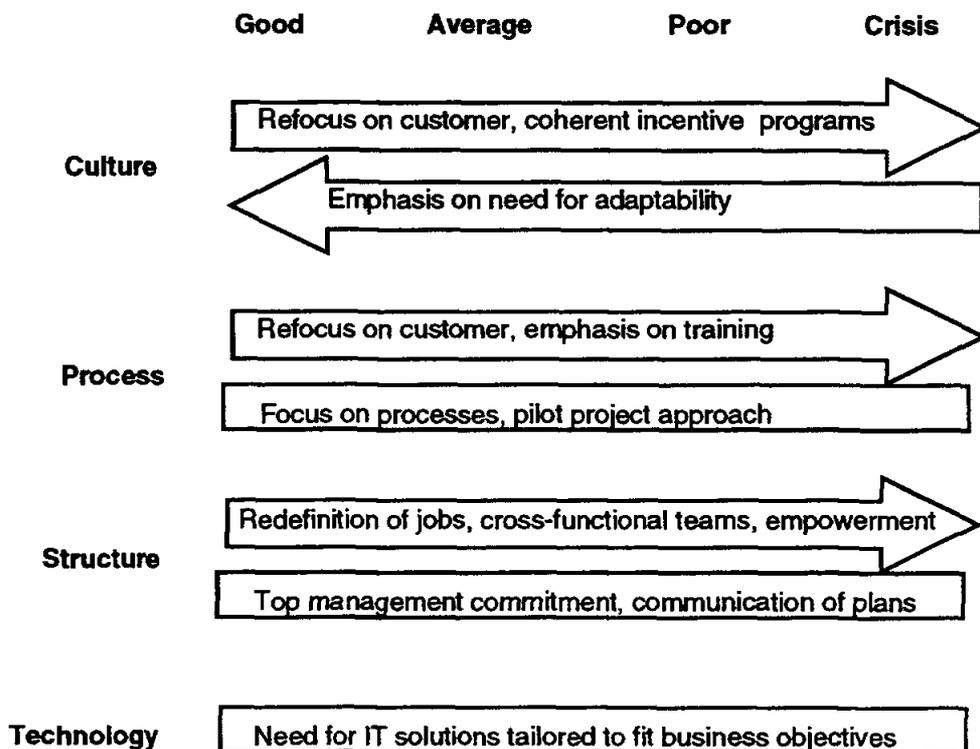


Figure 3: Trends across company types

It is also our observation that companies which changed successfully starting from a crisis situation made simultaneous coordinated changes in several more aspects of their organization (i.e., their culture, processes, structure and technology) as compared to companies starting from a relatively good situation. While this reflects the need for radical change within poorly performing organizations, this also emphasizes the challenge faced by managers in such companies in successfully leading and managing BPR/change efforts. Specific challenges and/or pitfalls observed in several of the change efforts studied are summarized in Table 4.

	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Getting people to understand the need for change • Deciding which aspects of the culture should not be changed • Remaining focused on the customer • Need for constant reevaluation • Absence of role models • Setting the right stretch targets • New skills required to deal with cultural changes • Need to consistently change incentive systems
Process	<ul style="list-style-type: none"> • Identifying the core processes and the business process architecture • Choosing the high leverage processes • Deciding upon the degree of process change • Managing the speed of implementation • Balancing the performance vs. cost tradeoff • Appropriate use of tools • Keeping a global focus • Need to focus on organizational change; not just on process redesign
Structure	<ul style="list-style-type: none"> • Lack of cross-functional communication • Need to change process and structure at the same time • Balancing old (functional) and new (process-based) structures • Need for clear responsibilities and roles • Need for broad organizational support • Need to commit resources (including funds) during hard times • Lack of skills; high employee turnover
Technology	<ul style="list-style-type: none"> • Integrating fragmented systems • Finding and implementing the right technology; not getting "fixed" on new tools/systems • Managing growth in systems • Building an effective partnership between the business and IT staff • Guiding technology to enable and support the right business changes • Need to remain focused on change, not just systems development

Table 4: Summary of challenges/pitfalls

6. Conclusions

The analysis and summary of this study has led to general conclusions regarding BPR/change projects. Companies should note the following regarding reengineering/change in today's business environment:

-
- Regardless of the financial position of the firm, all companies can benefit from continuously reevaluating the environment and how their organization interacts with it.
 - A precondition for undertaking change is the need for flexibility and adaptability to change. This is especially important for relatively successful companies as they may not feel the urgency or see the benefits of change.
 - The need to focus on the customer is essential to redesigning the business in the best manner. This is especially important for companies in difficult situations. In fact, of the companies studied, those in good or average positions already had a customer orientation and those in difficulty had almost none.
 - The need for clear goals is paramount to implementing successful changes. Without clear goals that are communicated consistently to all a corporation cannot get people working together to move the organization in the same direction.
 - Without top management understanding and commitment, no change program will survive. Furthermore, there should be one person (as opposed to an office or task force or committee) who is responsible for leading the effort. This person should be well-respected and have an important position in the organization.
 - Companies must focus on redesigning processes in order to gain maximum improvements from the change program. Focusing on functions or departments may lead to inefficient or ineffective solutions.
 - Managing the pace of change is critical; a pilot project approach can help the organization gain “early wins” to prove certain concepts and implementation techniques. At the same time it trains the team in the approach, and they can in turn help others effect changes.
 - It must be remembered that business objectives need to drive technology decisions and not the other way around.
 - Companies need to understand the impact of changing one dimension on other dimensions and to act coherently (a framework can help identify the areas impacted and can serve as a communication tool).
 - One should not underestimate nor under-emphasize the need to be consistent in implementing simultaneous changes to processes, infrastructure, incentive programs.

In addition to the above “success factors,” companies undertaking efforts to change should note that some of the most difficult obstacles they may encounter and some proposed solutions are as indicated in Table 5. Important aspects of BPR/change efforts and the corresponding major facilitators to overcoming related obstacles are summarized in Table 6.

Obstacles	Proposed Solutions
Getting people to understand and accept the need for change.	Identify a strong leader; provide training; communicate plans (vision) and problems.
Changing a culture which has evolved naturally and unnoticed over a period of years, sometimes decades.	Educate people to understand the business context (why the company is in the position it is in and where management wants it to be); get people involved (incentive programs, teamwork).
Identifying and keeping a strong leader for the effort.	Find someone respected who is committed, charismatic, and a good communicator; ensure that the person's position is important enough to have proper respect and empowerment to get the job done; provide the right incentive program for the person to stay.
Redesign of processes without considering all possible functions or departments ("in a vacuum") can lead to a sub-optimal solution for the business as a whole.	Use cross-functional teams to get people working together on the best way to redesign the business; provide appropriate tools and communication.
Re-focus and process redesign efforts will most likely lead to an organization in need of radically different skills.	Be sure to redefine jobs and responsibilities appropriately and train people for them.
Many tools and technologies are available which can distract or confuse the efforts.	Be sure that technology is justified by the needs of the business. Do not use technology for its own sake.
Implementation of a design which is no longer appropriate because of a change in requirements.	Change efforts and their expected results should be examined and alternatives evaluated. The speed of design and implementation must be carefully planned and monitored; changes should not be implemented just because they are in the plan, rather because they continue to make sense and will bring benefit.

Table 5: Some obstacles and their proposed solutions

Facilitators Issues	Communication	Strong Leader	Clear Corporate Goals	Cross-functional teams	Incentive programs	Training	Clear roles & resp.	Cost benefit analyses	Pilot project	Tools & Technology
Understanding & acceptance of the need for change	✓	✓	✓	✓		✓		✓		
Need for flexibility & adaptability	✓		✓	✓	✓	✓	✓		✓	
Ability to change culture	✓	✓	✓	✓	✓	✓	✓			
Maintaining process focus			✓	✓	✓	✓	✓	✓	✓	✓
Maintaining customer focus	✓			✓	✓	✓	✓	✓		
Managing speed of change		✓	✓			✓		✓	✓	✓

Table 6: Facilitators of BPR efforts

Appendix I

The BPR efforts examined in this paper along with their major references from the literature are listed below.

Company	Reference(s)
Bell Atlantic	Hammer, M. and Champy, J., Reengineering the Corporation, Harper Business, 1993, Chapter 13.
British Airways	Kotter, J.P., and Leahey, J.K., "Changing the Culture at British Airways," Harvard Business School Case, 1990.
Capital Holding Corp.	Stoddard, D.B., and Meadows, C.J., "Capital Holding Corporation -- Reengineering the Direct Response Group," Harvard Business School Case, 1992; Hammer, M. and Champy, J., Reengineering the Corporation, Harper Business, 1993, Chapter 12.
Daimler Benz Holding	Rossell, G. and Jick, T.D., "Daimler Benz Holding, Restructuring and Culture Change," INSEAD case, 1993.
Frito Lay	Applegate, L.M., and Wishart, N., "Frito Lay, Inc.: A Strategic Transition (A, B & C)," Harvard Business School Case, 1989.
Hallmark	Hammer, M. and Champy, J., Reengineering the Corporation, Harper Business, 1993, Chapter 10.
Kodak	Balaguer, N.S., and Preuninger, J.W., "Kodak: Control through Information Management," Harvard Business School case, 1990.
Phillips 66	Applegate, L.M., and Osborn, C., "Phillips 66 Company: Executive Information System," Harvard Business School Case, 1988.
Quantum	Christensen, C., "Quantum Corporation - Business and Product Teams," Harvard Business School Case, 1992.
Trustees Savings Bank	Ellwood, P., Restructuring and Revitalizing the TSB, in Successful Change Strategies: Chief Executives in Action, B. Taylor (Ed.), pp. 11-20, Director Books, 1994. Dutta, S., Manzoni, J.F. and Gee, F., TSB, INSEAD Case (in preparation), 1994.
Nissan	Rothbard, N., and Kotter, J.P., "Nissan, Cultural Change at Nissan Motors," Harvard Business School Case, 1991.
Rank Xerox UK	Davenport, T. and Linder, J., "Rank Xerox, UK (A and B)," Harvard Business School case, 1991. Dutta, S. and Yucesan, E., "Rank Xerox 2000", INSEAD Case (in preparation), 1994.
Reuters	Lorenz, C., "Restoring Order From Chaos," Financial Times, June 2, 1993.
Singapore Airlines	Gee, F. and Jick, T.D., "Singapore Airlines, Continuing Service Improvement," INSEAD case, 1993.
Taco Bell	Hallowell, R. and Schlesinger, L.A., "Taco Bell Corp.," Harvard Business School case, 1991; Hammer, M. and Champy, J., Reengineering the Corporation, Harper Business, 1993, Chapter 11.
Wal-Mart	Stalk, G., Evans, P., and Shulman, L.E., "Competing on Capabilities: The New Rules of Corporate Strategy," Harvard Business Review, March-April, 1992.

Appendix II

The one-page summaries of the sixteen company reengineering/change experiences studied are included below. These summaries are structures along our framework described in Figure 2.

It should be emphasized that the following summaries are based largely on the information reported in the literature references mentioned in Appendix I. As the information contained in the literature is incomplete, some aspects of the framework are not filled in for some companies.

BELL ATLANTIC

1991-1993

Context

- Previously monopolistic provider; being forced to change to competitive environment
- Competitors were offering access service within 15 minutes
- Response to customer was without regard to time/quality
- Varying procedures for handling requests in different parts of the organization
- Long and expensive processing/hookup times (turnaround time 15 days while service time on the request was only 10 hours)

Goals

- Focus on customer needs
- Reduce cycle time to one day
- Reduce cost
- "Make changes, not fixes"
- Ultimately get to zero cycle time



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Set clear ambitious goals for teams • Creation and communication of systemic knowledge to understand processes as a whole • Provided encouragement when apprehension surfaced • Attitude of never-ending process 	<ul style="list-style-type: none"> • Apprehension of team members due to anticipated uncertainty of change
Process	<ul style="list-style-type: none"> • Asked customers what they wanted • Involved experts when appropriate (for process analysis) • Changed the order in which tasks are done (not afraid of radical changes) • Pilot projects implemented to prove ideas (staged approach) • Iterative feedback and communication between core and pilot team • Consistent and coherent approach in changing structure, technology and culture 	
Structure	<ul style="list-style-type: none"> • Chose team leader who was respected, good communicator, good teacher • Established two multi-functional teams: "core" to generate ideas and "pilot" to define and test • Empowerment used to cut process time, reduce expenses, eliminate defects 	
Technology	<ul style="list-style-type: none"> • Used IT to empower employees 	



Results

- Reduced cycle times
- Dramatically improved service
- Savings of \$1 M in one location in the first year
- Retained existing customers while attracting new
- Reduced labor costs

BRITISH AIRWAYS

1981-1990

Context

- Recession, low forecasted passenger traffic
- Deep losses 1981, lack of money (technical bankruptcy)
- Diverse aging fleet
- Increased costs: fuel, staffing, ...
- Military mentality (focus simply on aircraft arrival/departure)
- No focus on productivity, efficiency
- Functional divisions
- Distinct split between two former companies that had been merged into one
- Lack of unifying corporate culture; divisional loyalty prevented common focus and economies of scale
- Inward focus on industrial relations/organizational conflicts; not enough management time devoted to managing the changing environment

Goals

- Save the airline



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Shared belief: paramount importance of customer service • Commitment to customer service (change leader as active role model spending time with staff to reinforce the message, personal involvement) • Understanding the need for radical change • Employees treated with respect and motivated by communication of management support 	<ul style="list-style-type: none"> • Increased costs complicate effort to fine-tune cultural change
Process	<ul style="list-style-type: none"> • Training focused on human interaction • Consistency: match between message and delivery (all employees participated regardless of rank) • Manager training: trust, leadership, vision, feedback • Management understanding of the need to maintain momentum 	
Structure	<ul style="list-style-type: none"> • Strong leader with business venture experience, strong ties with business community and government • Created "turnaround team" • Reduced staff by 20% in 9 months and froze pay (massive cuts in office and administration) • Closed routes, stations, engineering bases • Communication (internal/external) 	<ul style="list-style-type: none"> • Cost cutting while simultaneously keeping people focused on delivering quality
Technology		



Results

- Improved financial strength
- Increased productivity 67% in the late 80s
- Shift from strongly British engineering and operationally driven culture to one which emphasizes global marketing through customer service
- Mentality of people changed from transportation provider to service provider
- Out of bankruptcy to one of the world's most respected airlines

CAPITAL HOLDING CORPORATION

1988-1992

Context

- Insurance: slow growth business
- Days of mass marketing over; fragmenting market
- Regulatory pressures
- Slow response time to customer needs
- Mix of different products/business information confused what was happening in the core business
- Profitability suffering from excess mortality and increasing expenses
- Product based approach in an organization structured around functions
- Curse of departmentalization
- Lack of responsibility to individual customers
- Minimal employee training
- Employees rewarded for functional expertise

Goals

- Strengthen relationship with existing customers
- Target customers better
- To be an insurance company that cares about its customers
- Build new models from the ground up: change business to customers' terms



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Clear vision/communication program (dual focus: customer and market) • Understanding of the need to do business on customers' terms • Recognition of the need for radical change: strategy, culture, process, products • Begin with cultural audit to understand employees' attitude and base points • Redesign of reward/promotion system to reward teamwork and learning 	
Process	<ul style="list-style-type: none"> • Strategic planning process to enable implementation • Modular approach to allow for constant change and improvement (learning by doing in manageable chunks) • New business model developed by the employees and used as communication tool (ownership) • Revamped training and development program 	
Structure	<ul style="list-style-type: none"> • Cross-functional multilevel teams with support of outside consultants • Self-managed customer management teams 	<ul style="list-style-type: none"> • Massive redesign of infrastructure at the same time as supporting current business
Technology	<ul style="list-style-type: none"> • IT used as critical resource • Focus on the need for tools to allow understanding of current and potential customers • Created front-end to access old transaction-based systems • Prototyping expert systems for claims management 	



Results

- Yet to be seen

DAIMLER BENZ HOLDING

1991-1993

Context

- Heavy recession in the auto industry
- Socio-economic political situation: fall of USSR and German unification
- Japanese competition
- Increasingly complex production technology
- Increasing customer demands (not willing to wait)
- Diversification: defense, rail, white goods (change in size and products)
- Organization built on functional lines, strong hierarchy (7 management layers: bureaucracy-heavy, "Too many chiefs" syndrome)
- Strong culture: status symbols, employees are "special" (Paternal employer: lifetime employer)
- Promotion is reward for loyalty and hard work
- 9-month decision-making process
- DBH not serving customers (i.e., corporate units)
- Ownership structure allows time for change

Goals

- Flatten organizational hierarchy
- Shorten decision-making time in order to ensure flexibility in processing tasks and solving problems
- Create closer cooperation and improve know-how transfer
- Change mindset: "Change will continue"



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Abolishment of titles and status symbols • Re-grading of posts and revaluation of salaries: manager/expert at equal status and interchangeable • Entrepreneurship/delegation to staff (try to have people build their own network) 	<ul style="list-style-type: none"> • Changes ordered from top-down, not coming down as living examples • Not enough bottom-up democratic involvement (not enough support) • No support from task force • Criticism was not communicated to appropriate level: openness goes against company's and national culture • Old culture overshadowing new management structure • People not used to "Free space" • Dissatisfaction with the abolition of titles, status symbols and perks (makes external communication difficult) • Rigidity led to attitude of resignation • Image is too Deutschland-oriented
Process	<ul style="list-style-type: none"> • Top-down, bottom-up approach • Forums and round tables • Manager acting as coordinator (expert knowledge at staff level) 	<ul style="list-style-type: none"> • Decision-making channels not well enough defined/engineered • Implementation process needs to be speedier and better directed
Structure	<ul style="list-style-type: none"> • "Top management" (corporate unit heads) designated as leader • Cross-functional task force of senior executives • Consulting group: members from all departments met with task force every three weeks (members chosen at random to eliminate bias) • Reduction in number of levels of reporting: increased number of subordinates for managers (increased span of control) 	<ul style="list-style-type: none"> • No one <i>person</i> responsible as leader • Randomly chosen consulting members may not have been best choices for change effort • Difference between reporting levels and management grades still unclear • Physical removal of hierarchies does not totally eliminate bureaucracy • Reporting/Approval process did not actually change • New structure demands different management skills
Technology		



Results

- Only 2-3% complete after one year
- Managers are more leveraged with larger span of control
- Structure changes expected to be completed in one more year (?), mentality change will take much longer!!

FRITO LAY

1986-1990

Context

- Marketplace/competitors forcing reduced cycle time
- Rapidly changing complex markets
- Centralized and rigid structure
- High intrafunctional efficiency, but low interfunctional
- Presence of bottleneck processes

Goals

- Squeeze time out of business cycles
- Find a way to gain advantages of decentralized organizations without losing advantages of centralization: create hybrid organization that leverages the benefits of both
- Allow flexible timely information throughout the organization



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none">• Feedback sought and used to determine future direction	
Process	<ul style="list-style-type: none">• Focus on measurement, analysis and planning parts of business cycle• Creation of "Pipeline" project to integrate information and optimize across the whole business• In-depth study of management needs; involvement of technical and functional specialists• Prototype of applications developed• Executive and functional management users involved in refining prototypes	
Structure	<ul style="list-style-type: none">• Tools to access/analyze information available to all	
Technology	<ul style="list-style-type: none">• Extend IT architecture to increase speed, effectiveness, process integration• Comprehensive approach to creating information infrastructure• Cost/benefit analysis made for technology decisions	<ul style="list-style-type: none">• Understanding what information and analytical tools were needed at what levels and the best methods for packaging/presenting information to enable restructuring• How to create an international IT infrastructure



Results

- Better informed, more timely decisions
- Information widely available to managers in the field facilitates delegation
- Infrastructure allows for tactically competitive team-oriented organizations
- Hand-held computers allow sales people to make dramatic advances in knowledge, efficiency and control
- IS that provides information/analytical tools to decision-makers in the field and integrated information and tools to senior management to support corporate-wide policy/strategic decisions

HALLMARK

1989-1991

Context

- Customers want more tailored products
- Customer segments are less homogeneous (increasing in number, decreasing in size)
- Small window of opportunity to get customer what he wants
- Market dominance: little threat from competition

Goals

- Preemptive competitive strike
- Reduced time to market (get products to market in less than one year)
- Improve information flow to/from market
- Develop products/promotional materials that consistently win over buyers and retailers
- Improve performance at the retail level
- Create company-wide cross-divisional teamwork (improve connection/cooperation between functions)
- Reduce cost
- Continuous improvement to quality
- "Work smarter, not harder"



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Created "The Journey" concept and used as a communication tool (made people believe change is a never-ending process) • Codified beliefs, values, strategic goals and how they relate to business priorities • Sense of ownership: people made to believe that they make a difference • Understanding that reengineering is not a completely planned act (flexibility) • Realism: don't do something because they simply said they would, they do it only if it still makes sense 	<ul style="list-style-type: none"> • Getting people to understand and accept changes; importance of people's perception (belief of people that they would be pushed simply to work harder) • Thinking that more information is better than less • Keeping customer focus
Process	<ul style="list-style-type: none"> • Identified and focused on leverage points (critical parts of the business) • Clear set of objectives based on improving performance at retail level • Top-down driven process • Pilots, early wins • Moved from sequential product development process to integrated team approach with direct communication linkages (100 people split into 9 teams) 	
Structure	<ul style="list-style-type: none"> • Top management buy-in/open support, leading the effort (dedication and allocation of resources as required) • Commitment of senior executives (time and energy as necessary) • Communicated what would not change (beliefs, common values) 	
Technology	<ul style="list-style-type: none"> • Computerized bar code POS system • Decision Support System • Involvement of technical people in the design of the system as part of the team 	<ul style="list-style-type: none"> • Finding and implementing the right technology



Results

- Improved flow of sales data from Hallmark specialty stores to HQs (retail information is "the lifeblood")
- Ability to track effectiveness of a store layout/advertising campaign to reshape how they merchandise and market
- Integrated team products hit market 8 months ahead of schedule
- Teams review their own work:
 - Frees managers to do other work
 - Eliminates bottlenecks
- Creation of organizational capability (structure/skills) that will enable Hallmark to adapt to continuous change

KODAK

1985-1990

Context

- Global economic situation against Kodak interest
- Manufacturing is capital intensive, high overhead operations
- Many industries served: complicated planning process for forecasting product mix/volume by plant
- Broad product mix per plant
- Long production cycle times (product availability problem: bad delivery performance)
- Plants at different stages of automation and different manufacturing control systems:
 - Process parameter variations are necessary
 - Differences in quality
- Plant performance assessed on volume produced
- Exceptionally high WIP and FG inventories
- Communication barrier: inconsistent and unavailable performance data, autonomous operations
- Lack of cross-border cooperation

Goals

- Improve delivery performance
- Improve consistency of product quality
- Reduce manufacturing costs



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Understanding the need to be market-driven • Willingness to invest where necessary • Change of management measurement system in order to reward the right behavior regarding inventories • "Freedom of Information" rule: all performance data available to everyone • Importance placed on the careful use of EIS 	<ul style="list-style-type: none"> • Change decades-old operating culture • Convincing plant managers (incentive system did not correspond)
Process	<ul style="list-style-type: none"> • Program to uncover the 5-6 essential Key Success Factors (KSF) • Prototype developed around KSF • Understanding the process bottlenecks • Senior VP/GM in charge of manufacturing involved in defining how information is presented 	<ul style="list-style-type: none"> • Difficult to translate the KSF into concrete information • Focus each plant on a specific set of products/processes for Kodak worldwide: <ul style="list-style-type: none"> - Measure/control processes globally - New techniques to organize manufacturing processes - New methods of managing businesses - Large capital investments required - Sharing of information ideas/plans
Structure	<ul style="list-style-type: none"> • Senior VP/GM stresses the importance of management buy-in and requires top-level executives to use the same set of information • Change reporting relationship for general managers in the 8 plants • Downsizing/replacement within 24 months if inventory levels not decreased (reduction in layers of management) 	<ul style="list-style-type: none"> • Change in VP/GM
Technology	<ul style="list-style-type: none"> • Understanding of importance to use technology for specific goals • Decentralized application development with central control; each plant developed an application to be used by all plants (better coordination) • EIS: consistency in information and timeliness of reporting 	<ul style="list-style-type: none"> • Data extracts difficult to obtain from disparate systems • Delays in data collection • Managers still relying on performance reports from individual systems (they were more comfortable with their own system)



Results

- Coordination and shortened decision-making time
- Rationalization of manufacturing resources through a focused plant strategy
- New technologies/plant and equipment implemented

NISSAN

1985-1990

Context

- Lost 9% market share in 10 years
- First operating losses in 30 years
- Trade union difficulties
- Inward focus
- "Big corporation disease":
 - increasing number of layers
 - slow, inefficient communication lines
 - increased specialization/departmentalization
 - sectionalization, parochial decision-making
 - elaborate rules/regulations
- Slow incremental problems that went unnoticed over time

Goals

- Create better environment:
 - support independence, delegation
 - remove hesitation in questioning rules
 - promote communication



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Issued statement of corporate philosophy: in touch with global market, sensitivity to customer needs, focus on global trends, employee emphasis • Focus on customer satisfaction • Changed promotion/pay policies from seniority to performance basis: reward system to promote innovative ideas • Reduction of status symbols to promote communication • Recognition of the need to continue working on changing culture 	<ul style="list-style-type: none"> • Reformation of corporate culture
Process	<ul style="list-style-type: none"> • Simultaneous engineering requires rapid information sharing • Involved middle-level managers and outside consultants in task force • Single manager oversees an entire development and production process to ensure consistency • Increased customer follow-up 	
Structure	<ul style="list-style-type: none"> • Personal commitment/communication and visits of president to convey message • New coordinating division to integrate automobile development process • Interdepartmental rotation of employees • Established customer complaint desk; new showrooms more customer-oriented • Decentralized decision-making: delegation of authority to plants 	
Technology		



Results

- First product (240SX) to benefit from the changed process won car-of-the-year award in Japan, captured 3.3% of the market in 6 months
- Beat direct competitor and previous leader (Honda Prelude) within 1 year

PHILLIPS 66

1985-1988

Context

- Takeover attempts (1984-85) force restructuring efforts
- Rapidly changing business requires more flexible structure and systems
- Restructured 14 divisions into 9, changed more than half of the top management, thinned management support staff by 40%
- Centralized MIS and OAC (operational analysis and control)
- Swamped with data while starved for information

Goals

- Flexible system to evolve as the business changes (transparency of availability of information)
- Improved information
- New methods for measuring performance
- Better management support
- Streamlined, more effective management



	Successful Elements	Challenges/Pitfalls
Culture		
Process	<ul style="list-style-type: none">• Prototype approach to cut time and cost to implement systems using existing hardware and software• Involvement of functional analysts and executives in defining the information and user requirements	<ul style="list-style-type: none">• Need not to move too fast in order to be able to continue to support the existing system
Structure	<ul style="list-style-type: none">• Strong support of the President• Commitment of senior executives (leading to expansion to other areas)	<ul style="list-style-type: none">• Retirement of the system sponsor
Technology	<ul style="list-style-type: none">• Customized interface into the system (reports and menus)	<ul style="list-style-type: none">• Managing the growth of the system (growth had to be controlled, need to be careful as it was highly individualized)



Results

- Better and more timely information available from anywhere allows executives to be more effective
- Consistency and reliability of information across executives (they could discuss issues as opposed to whose numbers were correct)
- Changed the relationship between IS and executives (more trust and better understanding of what IS does)
- OAC analysts became more effective, worked more intelligently with the new system

QUANTUM

1988-1991

Context

- Customer demanding shorter lead times
- Stiffer competition
- Slower market growth
- World's 3rd largest independent disk drive manufacturer
- Late in introducing new designs to market
- Non-standard component interface
- Previous attempt at team level coordination failed: technologically ambitious project, hub-spoke management style, program manager not knowledgeable enough to make necessary decisions (no credibility)
- Impala project successful: self-initiated functional interaction

Goals

- Broaden product line
- Reduce time to define, engineer and produce new products in high volume
- Push decision-making lower into the company, manage critical programs through teams
- Use teams to coordinate internal operations to meet market needs (transparency to customers)



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none">• Performance assessment linked to team (but disproportionate to functional responsibility)	<ul style="list-style-type: none">• Team structure difficult for executives to adapt to, requires change in management style (confusion of responsibilities, thus of decision-maker)
Process	<ul style="list-style-type: none">• Focus on processes not on functions• Care in selecting team members (trust, general management capabilities)• Overlap of design/test cycles: parallelism of processes and information shared to ensure learning	
Structure	<ul style="list-style-type: none">• Introduction of product teams to manage definition, development, introduction of new products with strict cycle time objectives• Two-tier team structure with experienced team managers• Carefully delineated responsibilities of product teams, functional organization and executive staff• Collective responsibility for general management of project• Physical co-location of team members	<ul style="list-style-type: none">• Lack of enough experienced people for all the necessary teams: inadequate staffing of some teams led to low morale, frustration, conflict, failure to achieve objective, modest commitment• Lack of cross-team communication
Technology		



Results

- Product planning better integrated into the company strategy
- Team system gave model for empowerment and developed general management skills
- Organization and people more results-oriented rather than task-oriented

RANK XEROX, UK

1986-1991

Context

- General recession impacting industry
- Strategic shift toward providing integrated office system solution
- Revenues and profits down
- Functional organization with strong emphasis on marketing, sales and service
- Independent measurement/improvement of activities
- Ineffective in capitalizing on technological excellence
- No responsibility taken for overall processes
- Obsolete Information Systems

Goals

- Create integrated organization and systems to grow and offer integrated products
- Create orientation to business processes that cut across functions



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Clear set of corporate goals • Policy deployment: communication of mission, objectives of the organization and how they relate to the employees 	<ul style="list-style-type: none"> • Inconsistent changes with what people were used to: looked at culture as a result of system development
Process	<ul style="list-style-type: none"> • Focus on processes that directly touch customers (prioritization of areas to redesign: customer satisfaction, financial management, personnel management) • Created high-level objectives for each process • Appraisal of external environment • Pilot of most important processes with two dedicated full-time teams: front-end process addressed with reengineering approach; back-end process approached with process improvement 	<ul style="list-style-type: none"> • Focused on streamlining existing processes instead of radical change • Use of tools forced level of detail and technological competence that made senior management withdraw from the effort • Reengineering approach extended beyond the front-end of the process making it difficult to quantify the benefits
Structure	<ul style="list-style-type: none"> • Asked senior managers to act as a team; processes assigned to individual members • Created new cross-functional roles (assignment of Director to each) • New career system focused on facilitation skills and cross-functional management 	<ul style="list-style-type: none"> • Lack of broad organization support
Technology	<ul style="list-style-type: none"> • Realization that IT would play an important role in fundamental changes 	<ul style="list-style-type: none"> • Heavy focus on system development instead of system change (not much focus on people, organization)



Results

- Entire organization has become more process-oriented
- Some productivity benefits in building systems
- Financial improvements (difficult to attribute to BPR only)
- Could find no evidence that the goals were achieved
- Better understanding of how the company works
- Billing time reduced from 112 days to 1 day 4 hours

REUTERS

1990-1992

Context

- Financial deregulation
- Boom of the 1980s
- Orders handled incorrectly, late, or not at all
- Customers not served well: wait time for hardware was 3 to 6 months, time to receive bill was 2 months, time to collect payment was 3 months (thus customers were not paying)
- Compartmentalization: 1 order processed by up to 12 departments (24 hand-offs), customer served by many people in different locations

Goals

- Reduce time to install customer systems
- Improve billing/collection of payments



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none">• Incentive program based on commission once orders were installed (rather than when received)• Attitude of mutual help and "covering" for each other (teamwork)	<ul style="list-style-type: none">• Teams want more latitude
Process	<ul style="list-style-type: none">• Clear process definition (identified 5 consecutive steps)• Redesigned customer order life cycle (steps previously done sequentially now done in parallel)• Performance criteria/timing clearly established	<ul style="list-style-type: none">• Training was draconian and dictatorial rather than consultative and empowering
Structure	<ul style="list-style-type: none">• Split organization into 4 geographic divisions to get closer to customers• Set up small multi-functional teams located in same desk area ("account teams")	
Technology	<ul style="list-style-type: none">• Up-to-date system designed to suit the new process (automated clerical functions)	



Results

- Reduced number of hand-offs from 24 to 4
- Company records straightened out
- Created rather than eliminated jobs
- 95% of installations on time (3-4 weeks for hardware, 1 day for service)
- Bills 98% accurate
- Customer dissatisfaction reduced to less than 10%

SINGAPORE AIRLINES

1993 - 1994

Context

- Increasingly competitive market
- Passengers willing to pay for service
- Industry pressures:
 - technology reducing need for travel
 - corporate decisions for slashing costs
 - local labor shortage -> need for other nationalities
 - unions becoming increasingly militant
- Leading carrier in terms of service (awards)
- World's most profitable airline (flag carrier with no government subsidy)
- Average age of airplanes well below industry avg.
- Attention to technology
- Policies & practices, long standing principles such as long term planning, steady growth, diversified route network
- Strong culture: mix of Eastern & Western; official language is English; loyalty to company and country; promotion by merit; homogeneity of culture/attitudes

Goals

- Plan to grow 8-10% per year until end of decade through
 - superior inflight service
 - most modern fleet
 - outstanding ground service
- Plan to double size of fleet by 2000
- Continue to operate a successful airline



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Emphasis on soft skills: attitude & style • Recognition and reward for outstanding customer service • Team spirit, encouragement to speak out • Importance of employee motivation • Not obsessed by procedures • Understanding of the need for continuous change • Encouragement of people to look for new ways to do things and to be flexible (go beyond the rules, dare to innovate, make judgments on behalf of customers, put themselves in customers' shoes) 	<ul style="list-style-type: none"> • Cannot be content with what you have done (could be demotivating) • No role models; SA is the trend-setter • Require constant vigilance and alertness to change • Increasing complexity of culture due to continuous expansion • Customers remember more easily what went wrong than what went right
Process	<ul style="list-style-type: none"> • Focus on core activities (aviation and supporting services) • Long term strategy (did not succumb to slumps/bumps) • Expansion at a measured pace • Emphasis on training • Monitoring of customer satisfaction (customer demands analyzed weekly, response to complaints) 	<ul style="list-style-type: none"> • No sense of urgency: when things are going well, it is not easy to figure out what to change. • Perfection/cost trade-off (law of diminishing returns) • Customers increasingly demanding and other airlines catching up; need to look outside
Structure	<ul style="list-style-type: none"> • Alliances with other companies that share common traits • Communication of company problems and plans • Flat organization: many small businesses, delegation • Management mobility facilitates broader vision 	
Technology		



Results

- Yet to be seen

TACO BELL

1983-1992

Context

- Negative growth (-16%) in a growing industry (+6%)
- Becoming smaller, less profitable
- Assuming what was good for the customer without asking
- Top down command and control organization, multiple layers of management
- Operational handbooks for everything, too much complexity (micromanaging)
- Focus on internal processes not on customer

Goals

- Turn from regional Mexican-American restaurant to a "national force"
- Reorganization of Human Resources to be more innovative, customer focused
- Dramatic redesign of operational systems
- Reduce costs of all non-value-adding activities



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Created a vision (thought the unthinkable): belief that they are a retail company not a manufacturer • Understood they needed to create a true paradigm shift (customer focus) • They expected resistance and were ready to deal with it • Viewed as a continuous process: new growth, new ideas, mentality that change begets change 	<ul style="list-style-type: none"> • Greatest enemy was tradition-bound ideas to which many employees hung
Process	<ul style="list-style-type: none"> • Turn customers into key element of TB business proposition: ask customers what they want • Focus on enhancing activities that bring value to the customer; change or eliminate those that do not (customer was the starting point) 	
Structure	<ul style="list-style-type: none"> • Top management commitment, hands-on visits to people involved • Eliminated management layers • Redefined nearly every job and changed job titles to reflect new responsibilities and required skills: creation of market manager position • Empowerment: "you are in charge now" mentality (P&L and performance measures) • Managing by exception encourages innovation and empowers 	<ul style="list-style-type: none"> • Loss of skilled people
Technology	<ul style="list-style-type: none"> • Every technological innovation had to prove that it enhanced service and reduced costs • Advanced IT systems • TACO system eliminated paperwork, administration time 	



Results

- Rethinking of who customer is (customer was someone who ate at TB, customer now defined as everyone who eats)
- Increased earnings by 31%
- Growing (22%) in a stagnant market
- Higher customer satisfaction (tracked on a continuous basis)
- Increased peak capacity
- Lower average pricing

TRUSTEES SAVINGS BANK (TSB)

1989-1992

Context

- Pressure on "prices"
- Large and loyal customer base conflicting with new strategy
- "Hemorrhaging" recently privatized retail bank with floundering strategy and poor management:
 - broadening product line with uncompetitive products
 - declining profitability
 - confused strategic objectives: retail vs. commercial
- Redundancies and overlaps in the back office

Goals

- Become the leading financial retailer in the U.K.
- Cut costs and enhance cross-selling in the branches



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none"> • Focus on customer and people • Understanding of corporate strengths and weaknesses • Understanding of the need for multidimensional redesign • Permanent culture shift to continuous improvement • Coherent performance monitoring and reward system 	<ul style="list-style-type: none"> • Processes and incentive systems previously incoherent with new business direction • Previously unclear articulation of vision
Process	<ul style="list-style-type: none"> • Understanding of the need to be quick, focused and deep, and to balance change vs. the benefits of change • Identified core processes and improvement opportunities with the help of external consultants • Clear high-level performance objectives • Analyzed customer and market • International benchmarking study • Improvement opportunities judged by potential benefits, not restricted by organizational constraints • Implemented changes in a modular and incremental fashion: iterative pilot process approach • Training to be extremely customer service-oriented; development of appropriate managerial skills • Synchronous change of organization and IT support 	<ul style="list-style-type: none"> • Identification of various process redesign options and evaluation of their impact
Structure	<ul style="list-style-type: none"> • Cross-functional change management team with senior executive involvement • Teams given mandate to redesign core processes/organization structure • Task forces to assess the effort • Detailed communication strategy • Clear definition of management responsibilities/job descriptions 	<ul style="list-style-type: none"> • Staff not properly trained and lacking information support • Risk of degrading service levels by moving backoffice away from branches
Technology	<ul style="list-style-type: none"> • Viewed information as a strategic asset ("IT is key") • Technology dictated by business objectives • Automated only <i>after</i> redesign • Advanced technological support of core processes: expert systems, modular approach (flexible architecture) • User friendly systems 	



Results

- Removed administrative tasks from branches leaving them free for service and sales
- 100 million ECU profit improvement after payment of cost of capital
- Successful integration of banking and insurance
- Significant productivity gains

WAL-MART

1979-1990

Context

- Late 70s K-Mart king of discount retailing
- Wal-Mart only a small niche retailer in the Southern US

Goals

- Provide customer access to quality goods when and where customers want
- Build and maintain reputation for absolute trustworthiness
- Develop cost structure that enables competitive pricing



	Successful Elements	Challenges/Pitfalls
Culture	<ul style="list-style-type: none">• Culture of "service excellence" created and emphasized by founder (focus on satisfying customer needs)• Incentive system: stock ownership and profit sharing for employees• Emphasis on behavior and exploitation of organization capabilities• Close relationship with suppliers	
Process	<ul style="list-style-type: none">• Implementation of "cross-docking": no wait time• Efficient transportation system• Changes in managerial control• Emphasis on training (customer focus)	<ul style="list-style-type: none">• Difficult to manage cross-docking: requires continuous contact among distribution centers, suppliers, POSs
Structure	<ul style="list-style-type: none">• Cooperation among stores, distribution centers, suppliers: less central control required	<ul style="list-style-type: none">• Traditional centralized pricing/promotion decision-making inconsistent with cross-docking concept
Technology	<ul style="list-style-type: none">• Satellite communication system: POS data goes to vendors• Distributed IS• Video Link• Human Resources system	



Results

- Largest, highest profit retailer in the world
 - Reduced cost of sales by 2-3%
 - Elimination of the need for frequent promotions (thus further savings)
 - Shipping from warehouse to store in less than 48 hours allows replenishment of stores two times per week (industry norm is every two weeks)
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