AN INFORMATION SYSTEM RE-STRUCTURING STUDY
FOR
THE FINANCIAL INSPECTION BOARD

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Approval of the Graduate School of Informatics

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This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

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ABSTRACT

AN INFORMATION SYSTEM RE-STRUCTURING STUDY FOR THE FINANCIAL INSPECTION BOARD

Yıldırım, Meltem

M.S., Department of Information Systems Supervisor: Prof. Dr. Semih Bilgen

April 2004, 94 pages

With the scope of this study, certain tasks of the finance inspectors have been restructured by means of information technology in an effective way. The new structure has been integrated to the Internet technology and thus can eliminate the problems of time and place.

The Documentation and Personnel Departments of FIB have been chosen for piloting, and performance assessment has been performed after the restructuring with new technology. The results of the assessment suggest that, when compared to the old system, the new system has ensured approximately 70% more efficiency.

Keywords: E-Government, Information System, Public Sector, Re-structuring, Strategic Planning.
ÖZ

MALİYE TEFTİŞ KURULU BİLİŞİM SİSTEMİNİN
YENİDEN YAPILANDIRMASI ÇALIŞMASI

Yıldırm, Meltem

Yüksek Lisans, Bilişim Sistemleri
Tez Yöneticisi: Prof. Dr. Semih Bilgen

Nisan 2004, 94 sayfa

Bu tez çerçevesinde, maliye müfettişleri için gelişen teknolojisi en etkin şekilde kullanarak, MTK bünüyesindeki işlerin yeniden yapılandırılması ele alınmıştır. Gerçekleştirilen yeni yapı internet altyapısında çalışacak ve böylece müfettişler için zaman-mekân bağımlı sorunlar ortadan kalkmış olacaktır.

Pilot uygulama için, MTK servislerinden Evrak ve Personel Servisleri seçilmiş, bunların yeni teknoloji ile yapılandırılması ardından, performans değerlendirme yapmıştır. Bu değerlendirme göstermiştir ki, yeni sistem öncekine göre ortlama % 70 lik bir performans artışı sağlamıştır.

Anahtar Kelimeler:Bilişim Sistemleri, E-Devlet, Kamu Sektörü, Stratejik Planlama, Yeniden Yapilandırma.
To my angel

vi
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I would like to gratefully acknowledge the enthusiastic supervision of Prof. Dr. Semih BİLGİN during this work. The best advisor and teacher I could have wished for, he is actively involved in the work with patient direction. Special thank you for pushing me.

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Finally, I am forever indebted to my parents and my angel for their understanding, endless endurance and encouragement when it was most required. This thesis would be incomplete without a mention of the support given me by İlíker İMAMOĞLU, to whom this thesis is dedicated. He kept my spirits up when the muses failed me. Without his lifting me up when this thesis seemed interminable, I doubt it should ever have been completed.
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LIST OF ACRONYMS

AIG: Association of Inspection General

BIDDEP: Bilgisayar Destekli Denetim Projesi

BPM: Business Plan Management

BPR: Business Process Re-structuring

CD: Compact Disc

CSFs: Critical Success Factors

DHCP: Dynamic Host Configuration Protocol

DMO: Devlet Malzeme Ofisi

ECO: Economic Cooperation Organization

FIB: Financial Inspection Board

GEAP: Government Emergency Action Plan

Gb: Gigabit

IBM: International Business Machines

INTOSAI: Internal Control Standards Committee International Organization of Supreme Audit Institutions

IS: Information System

ISP: Internet Service Provider

IT: Information Technology

LAN: Local Area Network

Mb: Megabit
MS: Microsoft
MTK: Maliye Teftiş Kurulu
OIG: Offices of Inspector General
OPSR: Office of Public Services Reform
PC: Personal Computer
RAM: Random Access Memory
SAY2000i: Saymanlık Otomasyon Projesi
SISP: Strategic Information Systems Planning
SQL: Structured Query Language
SWOT: Strengths, Weaknesses, Opportunities, and Threats
UML: Unified Modeling Language
VEDOP: Vergi Daireleri Otomasyon Projesi
VIM: Vergi İstihbarat Merkezi
VPN: Virtual Private Network
WWW: World Wide Web
CHAPTER 1

INTRODUCTION

1.1. STATEMENT OF PROBLEM

E-business and e-government concepts have become popular in the end of the twentieth century for seeking ways to reduce costs, to spend less time in achieving results and to expand productivity.

Many organizations have begun re-structuring their business processes with these aims. Before re-structuring, the organizations usually had a structure with multiple layers of authority based on traditional functional areas, but now this is widely considered as outdated and it is generally suggested that businesses be organized according to the processes employed. It is possible to map processes and their interrelationships, resources and organizational units responsible for the activities, as well as the flow of information through operational and supporting processes of the internal value chain.

The popularity of re-structuring coincided with the maturity and adoption of the Internet and the World Wide Web (WWW). Just as desktop computing in the 1980s and 1990s served as catalyst to the re-structuring movement, the Internet and WWW can be viewed as the catalyst for the radical change in business context and business process viewpoint – what Keen and McDonald (2000) term the "e-process" perspective.
Realizing an effective e-process strategy starts by evaluating the existing business model and process. E-process is realizable with Internet computing to achieve comprehensive re-optimization of an organization’s business processes and effective utilization of information technology.

E-government aims to offer secure, efficient, continuous services in its departments with a high level of quality. This development and changing is required for the reconstruction of the public sector. For example, e-Europe+ consists of e-commerce, e-government, e-environment, e-health and this concept deals with constructing the milestones of the information systems with spending less time and cost in serving society.

In January 2003, the 58th Government Prime Ministry of the Republic of Turkey requested a report that had to include thought about their requirements, systems and process with “Hükümet Acil Eylem Planı (GEAP, Government Emergency Action Plan)” from public sector.

GEAP has instructed, together with all other public offices, the Financial Inspection Board to prepare a report that puts forward the requests and complaints within its scope of operation.

This thesis reports the work done to re-structure and rationalize FIB business processes by using information technology, as required by that report.
1.2. APPROACH

The whole process within the FIB is scrutinized in order to understand the current situation.

Acting on the GEAP instruction mentioned above, FIB requested a report from the finance inspectors on their opinions and suggestions for the best ways of operating and carrying out their responsibilities.

Gathering the reports continued until Fall 2003. These opinions and suggestions were evaluated by the chairman\(^1\) and the deputy chairmen\(^2\) and they were integrated into a single report.

Also other personnel responsible from office work had contributed to these studies. Therefore a questionnaire was distributed among the personnel to determine responsibilities, roles and finishing time of the works. Also, problems faced in exceptional situations had to be determined. The purpose of undertaking research was to determine whether the number of personnel is sufficient for carrying out all this work or not.

In section 4.1 the re-structuring process has been described. The author of this thesis has been individually responsible from the information system planning and pilot implementation components of the strategic planning and re-structuring process.

In the course of this work, it was seen that; tracing of the processes would not be easy, because all of the departments in the FIB stored their own records in raw manner, and there is no explicit relationship among these departments’ information.

\(^{1}\)The term “chairman” refers to the chairman of the FIB, and this word will be used in this manner in the rest of this thesis.

\(^{2}\)The term “deputy chairmen” refer to the both first and second deputy chairmen to the Finance Inspection Board, and this word will be used as in the rest of this thesis.
In this scope, for the pilot implementation, Personnel Department and Document Department were selected, because in these departments processes are tightly connected to the other departments in the FIB.

USA and England inspection structure was examined by the author of this thesis. This study showed that mentioned countries focused on more effective and customer focused inspection and prepared strategic plans including the three or five year’s actions. These plans paid attention to use the technologic improvements of twentieth one-century for integrity of the all studies among inspectors about investigating, questioning and inspecting.

After examination of the other countries inspection structure and financial inspectors reports, all information gathered and FIB strategic plan was prepared, covering the period 2003 to 2005. The vision, mission and goals adapted in this plan were explained in the FIB IS TO-BE STUDY part of this thesis, but aside from strategies, new technology, equipment and employee requirements are important for re-structuring.

SWOT analysis was used to understand the FIB situation, before re-structuring process was started. This part of the work is explained in section 4.5.

Financial inspectors have known what they require in terms of re-structuring the FIB, but someone has to communicate between inspectors and information technology employee. The author of the thesis was assigned to this mission. Her duties, during this study, are listed below.

- Determining the relationships between requirements and departments process described in the strategic plan,
- Analyzing the current process to establish the framework for re-structuring,
- Collaborating in the design of the new process,
• Providing liaison between the executive, functional departments and IT employees during the re-structuring project,
• Informing and training end user about the new system,
• Monitoring the new system and evaluating its performance.

1.3. ORGANIZATION OF THE THESIS

Chapter 2 presents a literature review about the subject of the thesis and related research information about public sector re-structuring processes.

In Chapter 3, As-Is study about the current situation and structure of the FIB is presented.

Chapter 4 presents the outline of the strategic IS plan for FIB, including the To-Be model of operational process that constitute the FIB IS.

Chapter 5 contains the implementation plan for business process in the selected pilot departments of the FIB, according to the vision in the previous chapter. The author’s individual responsibilities and achievements are detailed in this chapter.

Chapter 6 provides the conclusion to the re-structuring study and future work suggested within this scope.
CHAPTER 2

BACKGROUND TO THE STUDY

2.1. BUSINESS PROCESS RE-STRUCTURING

What is a process exactly?

Davenport and Short (1990) define a business process as "a set of logically related tasks to achieve a defined business outcome".

Scheer (1993) describes a process as "an occurrence of some duration that is started by an event and completed by an event".

Business process re-structuring is the fundamental rethinking and radical redesign of business process to achieve dramatic improvement in critical contemporary measures of performance such as cost, quality, and speed (Hammer and Champy, 1993).

Business process re-structuring happens, following the four simple steps shown in Figure 1 (Obolensky, 1997).
Figure 1: Four steps of business process re-structuring

Keeping abreast of the new information technologies is necessary for successful business process re-structuring implementation. The examples of successful business process re-structuring implementation where new information technologies are employed have been cited as follows (Orman, 1998):

- To centralize an organization for more effective decisions with increasing the information processing capacity of managers.
- To decentralize an organization for more communication and coordination with reducing the cost.
- To decrease the depth of organizational hierarchies when the middle manager’s functions are automated.

In the twenty first century, the Internet has become the most popular information systems application, because it ushers in globally distributed organizations and online commerce so that business process be named as e-process which is a collection of business rules that can be applied, using the Internet and WWW, on any recurrent
request (input) that then coordinates a web of interactions (processes/additional input) across the value network extending from customer, firm and suppliers (stakeholders) to deliver unique value (output) to these stakeholders (Kim and Ramkaran, 2004).

2.2. BUSINESS PROCESS MANAGEMENT

Business process management is a formal way to share control across data stores, user interfaces, and applications for managing and automating an organization’s processes.

In addition, business process management can supply focus on the organization as a set of related customer oriented business processes rather than a set of organizational functions. By managing the process, organizations not only have creative and innovative perspective for enhancing their performance, but also use the modern technology and standard for effective implementation (Gulledge and Sommer 2002).

According to the business process management approach, first step of optimizing productivity is to identify the processes, because information systems development is linked to improve and optimize processes. The process identification involves:

- Documenting the process to understand the work process.
- Determining the process ownership to establish managerial accountability.
- Managing the process to optimize some measures of process performance.
- Involving the process to enhance product quality of process performance.

After process identification, the other steps are determined in response to the question: “Which priorities are important while determining the re-structuring steps?”

These depend on the criteria that “creation of vision is beginning from the processes and tools (Methodology 1)” or “as-is processes prior to the redesign work
(Methodology 2) or “learning comes before redesigning activities (Methodology 3)” or “optimizing processes works were failed for the first time and re-structuring project has been started again (Methodology 4)”. According to these criteria, organizational processes and priorities can be different. Because of this diversity, application of the re-structuring method to the organization can differ as follows (Hiatt, 2000);

Methodology 1:
- Describe the project with establishing boundaries,
- Create vision, values and objectives,
- Redesign business processes and tools,
- Evaluate concept,
- Plan for implementing the solution,
- Implement the redesign,
- Transition to continuous process improvement

This method is very strong, but not enough to notice which processes are important to create vision, because the vision is created before beginning redesign processes work.

Methodology 2:
- Define the project,
- Document as-is processes,
- Redesign business processes and technology,
- Develop a cost/benefit analysis,
- Plan and Implement new processes and systems,
- Evaluate process performance,

This method lacks of a vision that is the main part of the defining the processes.
Methodology 3:

- Create project milestones,
- Learn from customers, associates, benchmarking and technologies,
- Create vision and design new business process model,
- Develop enabling technology architecture and organizational model,
- Perform a gap analysis and prepare a business case for change,
- Define process, systems and training requirements and plan implementation,
- Develop and pilot solutions,
- Implement solution and measure performance

Pilot solutions can be very expensive, if the continuous improvement model fails at the end of the project.

Methodology 4:

- Define project and identify team,
- Brainstorm new process and technologies,
- Analyze and prioritize opportunities,
- Select “best” opportunity and design solution,
- Develop and trial new process, information systems and enabling tools,
- Plan transition and implement solution,
- Measure results

This methodology takes longer time when compared to the others, because agreement can be difficult among members whose mission is brainstorming on new process.

Improvements of these methodologies are not simple, because of the hierarchical and departmental boundaries of the organizations. In public organizations, customer definition is so hard that Methodology 3 step 2 is complex and takes much time, Methodology 4 is not suitable because of the rapid change of the technology and the environment and Methodology 2 is not used, because lack of vision has lead to mess.
whether designing processes was right or not. Methodology 1 is the most suitable, because in the public sector, the primary benefit of business process re-structuring is the increased effectiveness and efficiency achieved from restructuring the organization along cross functional process according to the vision.

Before applying one of these four methodologies, one must keep away from three main reasons due to which re-structuring attempts have failed (Kock, McQueen, 1996).

1. Do not complicate political and objective goals: The public organization is the multitude of purposes and political issues are considered of higher importance than organizational needs.

2. Focus only on shifts, which are planned before: If the processes are not to tend to improvement and for radical change, this attitude seems to be in tune with much of the practice incorrectly.

3. Double bind prevented recovery: Double bind implies that even if some misunderstandings did exist, they seemed to have been combined with other type of behaviors by managers and decision makers (Argyris, 1977). The double bind leads not to realize the importance of dealing with these misunderstandings.

Taking into account the above listed items carefully, BPR approaches provide the organization with higher job satisfaction, better teamwork performance and more development opportunities, because employees feel more involved in the business, when the ability of employees to take sensible decisions and benefits from them leads of higher motivation.
2.2.1 EFFECTIVE RE-STRUCTURING; CRITICAL SUCCESS FACTORS (CSFs)

Critical success factors approach is mainly attributed to John Rockart of the Massachusetts Institute of Technology (1979), who has shown that the concept of critical success factors (CSFs) could be an effective way of defining the management information, which directly related to strategic and business plan objectives and goals.

CSFs are the primary process performance measures that most closely define and track how the process must be performed in order to be considered as successful. Measuring the performance of an organization is needed to identify the criticality of a success factor. This identification is determined according the following steps:

1. Identify business goals.
2. Identify “what has to go right” to achieve the goals.
3. Identify “measures” of success in terms of information systems output and trace performance continuously.

The method has the additional advantage that it may increase the collective understanding of managers of the organization and its environment.

2.2.2 EFFECTIVE RE-STRUCTURING; STRATEGIC PLANNING

Strategic planning is the continuous process of systematically evaluating the nature of the organization, defining goals, identifying quantifiable objectives that are most important to achieving organizational structure, and developing strategies to reach these objectives and allocating resources to carry out these strategies. The process is strategic because it involves preparing the best way to respond to the circumstances of the organization’s environment.
The process and product of strategic planning provide the following advantages to the organization:

- Be ready for change
- Explain employee what organizational needs and goals are
- Improve productivity
- Supply to measure the organization success

Strategic planning is a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does and why it does it (Bryson 1995).

- What is the current situation of the organization? Understanding of the environment.

Strengths, weaknesses, opportunities and threats (SWOT) analysis is used to define the organizational situation analysis, in respect of both internal structure and external market. This technique provides a quick overview of organization’s strategic situation.

Strengths and weaknesses are actually internal components that define the potentials of the organization according to the existing problems and performance. Strengths shed light on the organizations’ much effective goals and the precautions are defined according to the weaknesses.

Opportunities and threats are external components, i.e.: the organizations own industry where structural or technological change has occurred.

SWOT analysis examples are given in Table 1 according to various organizations (Strickland, 1996).
<table>
<thead>
<tr>
<th><strong>Internal Strength</strong></th>
<th><strong>Internal Weakness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Advantages</td>
<td>Lack of Managerial Depth and Talent</td>
</tr>
<tr>
<td>Proven Management</td>
<td>Weak Market Image</td>
</tr>
<tr>
<td>Superior Technological Skills</td>
<td>Too Narrow Product Line</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>External Opportunity</strong></th>
<th><strong>External Threat</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging New Technologies</td>
<td>Changing Buyer Needs and Tastes</td>
</tr>
<tr>
<td>Complacency Among Rival Firms</td>
<td>Adverse Demographic Changes</td>
</tr>
<tr>
<td>Ways to Expand Product Line</td>
<td>Slower Market Growth</td>
</tr>
<tr>
<td>Integrating Forward or Backward</td>
<td>Rising Sales of Substitute Products</td>
</tr>
</tbody>
</table>

Organizations will learn about their current or potential competition with SWOT analysis, not only to use their information and experience for better decisions get made about “what to change” and “how to change”, but also to understand, accept and own responsibilities

- What are the goals of the organization? Definite purposes are in mind.

Objectives are used to answer this question and determined goals are matched these objectives directly. In order to see whether objectives are achieved or not, objectives must be quantified these accomplishments.

Objectives represent managerial responsibilities to achieve organization’s mission. Strategic objectives are used for improving the organization’s long-term position. Financial objectives are used to ensure survival of the organization under conditions of risk. But when the organization has not defined the strategic objectives correctly, long-term achievements fail even though the financial objectives are successful.
• What will the organization do to get from now to the future, vision? Creativity is needed in developing effective responses according to these purposes.

Strategies are used to answer this question. Changes in the organization’s situation, either from the inside or outside or both, fuel the need for strategic adjustment. Three strategy making tasks are recognized as shown in the below (Strickland, 1996).

Strategic vision:

• Gets a big picture perspective of “who we are, what we are trying to do”.
• Leaves no doubt about the organization’s long-term directions and management intends to take the organization.
• Alerts managers towards any changes and opportunities happened, or any threats developments.
• Provides managers to control budget requests for any investment and new employee.

Setting objectives:

Represent managerial responsibilities to achieve organization’s mission. To performance objectives successful, organizations have got financial and strategic objectives. Strategic objectives are used for improving the organization’s long-term position. Financial objectives are used to survive the organization from the risk. But when the organization is not defined the strategic objectives correctly, long term achievements are failed even though the financial objectives are successful.

Crafting a strategy:

Managers involve many people

• To use their information, experience for better decisions get made about “what to change” and “how to change”.
• To understand, accept and own responsibilities.

After everything said above to describe what strategic planning is, what strategic planning is not will be summarized below:

• Strategic planning involves anticipating the future environment, but the decisions are made in the present.
• Strategic planning has also been described as a toll. But it is not a substitute for the exercise of judgment by the manager.
• Strategic planning does not typically flow smoothly from one step to the next. Inevitably the process moves forward and backward several times before arriving at the final set of decisions.

Strategic plan brings a top-down management approach. Because of this approach, another plan is needed, which follows on from down to top management for determining whether the strategies are realized or not with existing human resources and equipment, and named as an Information Systems Plan.

2.2.3. STRATEGIC INFORMATION SYSTEMS PLANNING

A successful IS, must deliver timely, accurate, and complete information to decision makers with a minimum of mental and economic cost. Conventional management information systems tend to focus on numbers and on transactions (Briggs, et. al. 2003).

Strategic information systems planning is a major change for organizations according to the user needs, which are defined in the business strategy. Due to this reason, information systems planning is much like strategic planning in management, but BPM is not only a management function, but also a technical one that is used to identify the best targets for purchasing and installing new management information
systems and help an organization maximize the return on its information technology investment. BPM generates a significant amount of attention, some resulting from the market efforts of organizations that purport to provide business process re-structuring, but much due to the operational benefits. However, the level of benefit that can be generated from BPM is heavily reliant upon the capabilities of the technologies deployed (Gilbert 2003).

Thus, information systems and technology have become so important to achieving objectives to be weighed as part of the process of selecting objectives that reflect a convergence of means and ends.

Strategic information system planning must be focused on organization needs rather than incremental user needs. The time period should not typically last more than 1 to 3 years.

2.2.4. IMPLEMENTATION PLANNING

Not all aspects of the implementation processes can be easily controlled or planned (Steven, Ginzberg 1978).

“If you are going to move information and responsibility down to the local level, then the key question is how can you be sure that people will behave appropriately?” (Brown, 1994).

Before the changing of the organization structure, the most important step is to organize and encourage employees to be successful. All employees have got different roles in the organization. So individual’s responsibilities and roles with regard to information use are needed to be determined. But encouragement does not mean that everybody can say or do everything. All acts must be under control of top-level manager and information is needed for the process of management.
For the success of the implementation plan the following factors are important (Laudon and Laudon, 1999).

- The roles of the users, who participate directly to the implementation process, are important.
  - Preparation of status reports for the top managers
  - Implementation team, who have got steering capability, can be created
  - Active participation of the implementation team
  - Put in charge of training and installation

- Top managers attitude for the implementation work
  - Encouragement for employee participation and involvement
  - Job design
  - Standards and performance monitoring
  - Health and safety
  - Take care of the employee grievance

- Risk assessment
  - Implementation team may not have enough experience or technical information
  - Deviations from the plan can happen
  - Unpredicted expenditures can cause the overload of the planned budget.
  - Users may resist to the new system

Researchers have explained user resistance with one of three theories (Hammer and Champy, 1993).

People Oriented Theory: Employee resistance to use new system because of new obligation, extra training procedure and fear of inability for adaptation.
System Oriented Theory: If designed system is complex and hard to apply, users can resist using it.

Interaction Theory: According to this theory; new system using resistance caused by both interaction of people and system factors.

To solve all these resistances, organization would restructure employee incentives, optimize employee-designer interaction and promote employee participation.

Two kinds of approaches are examined while understanding the behavior of people in the organization:

One of approaches considers a small group of people. They meet regularly to define organization’s needs. They develop strategies of the organization. Managers get reports periodically from this group and recommend any suggestions to direct their work. After all of these studies, the strategic plan is documented. Even though every step is implemented successfully and carefully, all employees are not included in this approach. Because of this reason, all works will be fail or very slow.

Other approach considers including the highest number of employees for planning to prepare organizational re-structuring process. All previous approach’s steps are done together. In this approach, changes are realized faster, because all people in organization are considered and they decide on which changes are needed. In long term, employee capacity will increase through thinking strategically and employees will be able to respond to any changes faster.

In the public sector there are more limitations on degrees of freedom because of statutes or regulations. The second approach is not suitable in Turkey because of quickly changed political management with election. But involvement from staff at different levels for brainstorming, enables project organization and planning as explained in the first approach.
Not only understanding the behavior of employee is complex but also it is difficult to identify the customer of the public sector and what to do for them. Furthermore, lack of communication with customer is the end of the optimizing productivity.

2.3. GOVERNMENT PROCESS RE-STRUCTURING

The public and private organizations are not homogeneous. There are serious environmental and structural differences between private and public organizations. For example, public organizations rely more on appropriations and less on market exposure and there is lower availability of market indicators and information according to prices and profits. They have greater multiplicity, diversity, vagueness and conflicting objectives, and also are managed under political constraints. Because of these factors, determining the alternative processes and redesigning these processes in the public organizations will be difficult.

The new information technologies and organizational interaction will be needed to be successful in the re-structuring processes, but this interaction can lead to misunderstandings between the officials and the administrators. In case of successful management of the re-structuring project, members of the organization can act with more fairness, responsiveness and honesty (Thong, Yap, Seah, 2000). This problem will be solved by the encouragement behaviors of the administrators. How FIB top managers behave is explained in chapter 4.
2.4. TWO RE-STRUCTURING EXAMPLES

2.4.1. UNITED KINGDOM

In July 2003 the UK government published its Policy on Inspection of Public Services together with the report Inspecting for Improvement: Developing a customer focused approach. The UK government expressed its belief in the efficacy of targeted and user focused inspection in providing assurance to the public and support for the improvement of public services (OPSR, 2003). By this approach the Government aimed to make clear its commitment to inspection, outline the arrangements by which effective inspection can be achieved and state its expectations of inspectors. The following list defines the Government’s policy according to these aims:

- 3-5 yearly comprehensive reviews of the inspection methodology, outputs and the overall quality of the inspection service, to be carried out by the sponsoring department.
- Annual reviews of a random sample of inspection reports by the sponsoring department, taking into account the views of inspected bodies and their service users. Such reviews would ensure that the agreed methodology was followed — and modified as necessary.
- Simple quantitative measures, which could include the number of inspection reports, and the percentage issued on time.

The new principles of inspection now require inspectors to focus on outcomes and to take the user’s perspective. This means that judgments must be informed and objective, but should also be relevant and clearly communicated to the public and service users.

A two-year work program was agreed; in the first year to reduce inspection activity to the Whitehall average benchmark cost; and in the second, to carry out a bottom up review of the whole inspection and auditing activity of the Treasury. This
resulted eventually in a 50% reduction in audit, a more streamlined process and inspection activities redirected towards more fruitful areas (Skinner, 2003).

2.4.2. USA

On October 27, 1999, the Board of Directors of the Association of Inspection General voted to create a committee to establish generally accepted inspector general principles and standards. The committee considered all comments in detail, revised the drafts as appropriate, and presented the drafts to the Board of Directors. On May 16, 2001, the Board of Directors of the Association found that the draft documents represent generally accepted principles, quality standards, and best practices generally applicable to federal, state, and local offices of inspectors general. Association of Inspection General (AIG) have formulated and approved quality standards for the management, operation, and conduct of Offices of Inspector General (OIG). The standards are advisory and are not intended to impose requirements (AIG, 2001). Internal control standards are separated into two categories, general standards and qualitative standards. Details of these standards have been given below.

2.4.2.1. General Standards

The general standards consist of reasonable assurance, supportive attitude, integrity and competence, control objectives, and monitoring controls. Together, they provide the proper control environment within the organization.

**Staff Qualifications:** Individuals assigned to conduct the investigative activities should collectively possess the knowledge, skills, and experience required for the investigative work. Proficiency exam is done to measure inspector’s capacity every three years.

**Independence:** Individuals assigned to conduct the investigative activities should collectively possess the knowledge, skills, and experience required for the
investigative work. Inspectors work as general managers and directly connect with the Finance Minister, in FIB.

**Professionalism:** Professional care is necessary for two things. One is for assigned inspector who has to constitute the whole work with its details during questioning. Second is for both the reports and the work to obey all the rules for supplying its integrity.

### 2.4.2.2. Qualitative Standards

Qualitative standards are the mechanisms or procedures by which control objectives are achieved. They include, but are not limited to, specific policies, procedures, plans of organization (including separation of duties), and physical arrangements (such as locks and fire alarms). Controls must provide reasonable assurance that the internal control objectives are being achieved continually. To do so, they must be effective and efficient and be designed to work together as a system, not individually (INTOSAI, 1992). Rules formed for ensuring quality and expedite the progress of investigations, proper supervision will be exercised from the start of such work to its completion.

**Planning:** Investigative work is to be adequately planned. Effective planning provides the basis to clearly identify the investigative issues to be addressed prior to initiating the investigation and includes preparing a written investigative plan spelling out the objectives of the investigation and specific investigative steps to be performed. Summer and Winter Work Program are prepared twice a year, in FIB.

**Application:** It is expressed in this part that whether the inspection, questioning and investigating have been on time or not. Also whether those jobs are lawfully or not.

**Reporting:** Where appropriate, investigative activity should result in a timely referral for criminal prosecution or written report. All reports shall present factual data
accurately, fairly, and objectively, and present the results of investigation in a persuasive manner.

Information Management: Information and data gathered during an investigation should be carefully documented and organized relative to case objectives.

According to these standards Turkey and USA financial inspection structure have been compared in Table 2.

Table 2: Comparison of the USA and Turkey Inspection Structure

<table>
<thead>
<tr>
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<th>USA</th>
<th>TURKEY</th>
</tr>
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<tbody>
<tr>
<td><strong>GENERAL STANDARDS</strong></td>
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<td></td>
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<tr>
<td>Staff Qualifications</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Independence</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Professionalism</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>QUALITY STANDARDS</strong></td>
<td></td>
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<tr>
<td>Planning</td>
<td>✓</td>
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<tr>
<td>Application</td>
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</tr>
<tr>
<td>Reporting</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Information Management</td>
<td>✓</td>
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</tbody>
</table>

Finally, FİB resembles other countries inspection structure (Chapter 3). However, FİB has some deficiencies to examine the reports and make them as a standard of inspection information. Because,

- Inspection or auditing is not continual and systematical,
- Produced for preparing the reports are complicated and take much time,
- Public sector organizations lack the communication for coordination,
- No standards have been adopted for inspection guidance (Yörüker, 2004).
In this respect, inspection system needs to be re-structured:

- Inspection reports should be focused on outcomes rather than internal processes.
- Inspectors should, where possible, use a common system of reporting their findings, including ratings, in order to improve communication with the inspected bodies and the public.
- Inspection system has to be support by the strong databases and IT technologies for analyze the reports and support analyzes information with the statistics.

This thesis study has aimed to realize above listed necessities and the other FIB requirements, detailed in chapter 4.
CHAPTER 3

FIB AS-IS STUDY

3.1. CURRENT ORGANIZATION

FIB was established 124 years ago. FIB is managed by FIB executive, which is located and connected to Ankara, Izmir and Istanbul subgroups.

Organizational structure is the same among these subgroups, only management part of the groups are different thus the FIB executive structure is a little different from the Ankara, Istanbul and Izmir subgroups. Structure in FIB can be examined in two groups (finance inspectors and officials), based on the job diversity among working people. However all groups and FIB executive include finance inspectors and officials. Current organizational official / unofficial structure depends on these two particular work groups. Finance inspectors are named as internal customers and citizens are named as external customers for FIB. In Figure 3, FIB organizational structure is presented.

3.2. SOURCES OF DUTIES AND POWERS

The sources of FIB duties and powers are listed as follows and the responsibilities of FIB are shown in Figure 2.
1. Foundation Act of Ministry of Finance
2. Tax Procedure Law
3. The law on Combating Corruption and Bribery.
4. The Law on Prevention of Money Laundering (No: 4208)
5. Criminal Procedure Law
6. The Law Concerning The Protection of The Value of The Turkish Currency.
7. The Law Concerning Lending Transactions.
8. Banking Act
10. Trade Unions Act
11. Foundations Act

Figure 2: FIB Responsibilities
3.3. TYPES OF UNITS IN THE FIB

3.3.1. FINANCE INSPECTORS

Finance inspectors are the selected people who have succeeded in both Finance Inspector Assistant Entrance Examination and Proficiency Exam (which is held three years after the assistant selection exam and only successful assistants enter this proficiency exam after working for three years).

The six people among these finance inspectors are different from the others in terms of their positions. One of them is the chairman of the inspection board, the other two of them are deputy chairmen and the last three finance inspectors are the respective chairmen of Izmir, Ankara and Istanbul groups. The chairman of FIB is appointed by the Ministry of Finance and the chairman of each group is assigned by the chairman of FIB. The deputy chairmen of FIB are selected according to the finance inspectors’ entry date that is named as a list of promotion and this mission lasts only one year.

The specific duties of finance inspectors are listed below.

3.3.1.1. Official Missions and Authorities of Finance Inspectors

Financial Audit:

- Audit of public expenditures
  ➢ Public administrations with general, annexed or special budgets
  ➢ Public owned enterprises
  ➢ Audit of public expenditures realized by using direct funds
• Audit of public assets
  ➢ Audit of transactions concerning the acquisition, management, bartering, disposal and sale of movable and fixed public assets.
  ➢ Monitor the correction of irregularities found in the internal audits.

Tax Audit:

• Administrative, financial and functional inspection of tax revenue departments
  ➢ Inspection of central and local units of Tax Revenue Departments according to annual programs approved by Minister of Finance

• Audit of taxpayer’s declaration via tax inspection
  ➢ Inspection of the correctness of taxpayers’ declaration with the power delegated by Tax Procedure Law Article 135.

Inspection of Corruption:

• Inspection of organized and globalize corruption, such as;
  ➢ Bogus export,
  ➢ Corruption of procurement,
  ➢ Customs smuggling,
  ➢ Corruptions concerning many different public departments.

Inspection of Money Laundering & Financial Underpinnings of Terrorism:

• Fighting against Money Laundering and Financial Underpinnings of Terrorism by evaluating information and intelligence of national and international financial movements and economic activities.
• Joint investigations with finance inspectors of other ministers and law enforcement agencies of other countries.
Inspection of Foreign Exchange Transactions:

- Inspection and investigation about real and corporate persons carrying activities against The Law Concerning The Protection of The Value of The Turkish Currency (No: 1567)

Investigation of Public Officers:

- Investigation of Public Officers’ claimed activities against criminal and disciplinary laws.

Functional Inspection:

- Auditing of the application of project credits of public institutions, and enterprises provided by The World Bank and The European Union Funds.
- Annual audit of ECO accounts.

Expertise to Judicial Bodies:

- Expertise departments’ judicial bodies, in areas where special financial knowledge are needed by their demands.

Counseling:

- To propose new regulations or revisions on current financial system and to make suggestions for improving the application of regulations.

Finance inspectors are assigned these missions according to the “Working Program” which is published two times a year and named as summer working program and winter working program. And they prepare “Advisory Report” to declare their ideas and suggestions about determining the solution ways of the encountering problems.
3.3.1.2. Unofficial Missions and Authorities of Finance Inspectors

- Finance inspectors are temporarily assigned as educators, lecturers or advisors in some universities to teach the body of current law,

- Finance inspectors may participate in any conference or seminar as a speaker, if invited,

- Each deputy chairman of FIB is appointed to a new mission after ending his assistant duty. This job is called as finance inspectorships in consulates abroad for financial auditing and it takes 4 or 6 months,

- Finance inspectors are commissioned on various missions in addition to the jobs mentioned above and these types of positions are not based on any rules or regulations, they just happen when any denunciation or complaint is received. This kind of mission has high priority and secrecy. The chairman of FIB assigns finance inspectors to missions and he is the only one informed about details.

According to the above FIB structure explanation, the relations with or differences from the other countries in the world will be examined. In France, "Inspection Generale Des Finances" was established in 1816 and FIB was established based on the model of this financial structure. Finance inspectors are responsible for inspecting, questioning and investigating with the work of counseling to evaluate the public policies in this country. Proficiency exam is done every one and half year in France, after the assistant inspector has been accepted to the institution.

In 1978, The Inspector General Act was passed in USA for the financial inspection. The Inspector General Act, as amended in 1982, established the Office of Inspector General, with 14 ministries and 43 federal foundations (totally by 57 units). As the organic statute for this Office along with spirit of the organic laws of the United States of America, Declaration of Independence and United States Constitution, have to be infused, whenever possible, into all prescribed policies, procedures, and activities of this "independent and objective" Office of Inspector General.
The Association Of Inspectors Generals was organized on October 26, 1996. The purpose of the Association is to foster and promote public accountability and integrity in the general areas of the prevention, examination, investigation, audit, detection, elimination and prosecution of fraud, waste and abuse through policy research and analysis; standardization of practices, policies, and ethics; encouragement of professional development by providing and sponsoring educational programs, and the establishment of professional qualifications, certification, and licensing.

FIB resembles other countries like USA and France. However, FIB has some differences about inspecting structure. All inspecting, questioning and investigating processes are related with FIB, but in these countries, different unit is charged for each process. However, our country structure brings complication and hard following the reports or comments by the executive.

3.3.2. ADMINISTRATIVE STAFF

Administrative staff work in FIB to help finance inspectors operate without any problems.

The departments listed below are managed by only one departmental manager and her duty is to arrange the working process between officials and finance inspectors.
3.3.3. DEPARTMENTAL PROCESSES OF THE FIB

3.3.3.1. Documents Department

- Follows inspector’s documents and reports to send to departments of government, university, military, etc.

- Receives documents to send to related finance inspectors.

- An inspector or another Inspection Council can send documents. If an inspector sends documents, it can be a report, which is related to his duty in the Ministry, this department employee keeps them regularly.

- Files processed documents, which will stay in FIB. After this process, documents can be found again by their file number.

- All the documents are under control of the first deputy chairman and rarely ever documents go out from himself when they are sending to the concerning department.

- Documents are daily mailed after chairman control. If necessary, the Chairman of Inspection Board signs it. But this process is determined according to the kind of office that the document is sent.

3.3.3.2. Personnel Department

- Traces inspector’s promotions or departures to inform the Personnel Department of the Ministry of Finance,

The old leave request process is shown in Figure 4.
Figure 4: Use Case Diagram of The Old Leave Request Process (*)

- When inspector is assigned a mission about advisor, educator or lecturer, this department declares it to the related university.

* In the use case diagram (Figure 4 and Figure 24) the formalism of Rational Rose Enterprise Edition Version: 2002.05.00 has been used.
3.3.3.3. **Report Department**

- Prints and delivers the prepared “Working Program” to the finance inspectors,
- Follows all reports if they are out of FIB and processed from the other department of the government and when they come back, files them in this department (kind of report archive department),
- Declare finance inspectors for special missions that do not include working.

3.3.3.4. **Inventory Stock and Purchase Department**

- This department keeps the records of valuable documents, stationery material and computers that can be bought from DMO or any private company. When any stock enters in Ministry, its entering date, how much/many quantity is entered, and its cost value records are kept.
- Stamps, Identity Cards, Treasure Credit Portfolio (Hazine Kredi Cuzdani) and Binding Cheque are used by finance inspectors. This department keeps their records of them.
  
  Only one person is responsible for these procedures.

3.3.3.5. **Computing Center**

- Computing center deals mainly with Internet facilities and computers of finance inspectors. Each inspector has ThinkPad to easily transport his files or connect to the FIB without depending on any location.
- Training the finance inspectors using ThinkPad and MS office programs are on duty of this department,
• Each inspector is given an e-mail address provided by the FIB’s Internet server. The computing center personnel mission manages these addresses and supplying the connection FIB LAN easily and safely.

• This department is interested in the repair of ThinkPad’s hardware problems and update of software versions (which use in FIB).

3.4. CURRENT SYSTEM EQUIPMENT

Many accomplishments have been achieved at all levels of the current system by the federal agencies, the states and with the involvement finance inspectors. These accomplishments are making the workforce information system more complicated and responsive to finance inspectors.

Two kinds of procurement were adjudicated to supply the association’s hardware, software and network equipment. One of them was in 1995 and the other one in 2000.

After these two procurements, existent and used equipment are listed below.

3.4.1. SOFTWARE

Microsoft Windows 2000 Server: Each user is authorized and authenticated by MS Active Directory. Users can gain ability to use shared systems resources. All users, depending on her authority, can reach other users computers sharing such as floppy CDs.

Windows 2000 Server Terminal Access: Administrative staff computers capacity is not enough to use Lotus Notes applications.

Microsoft Exchange Server: This server and software are used to handle mail traffic.
Microsoft Office 2000 Premium: This package contains more than one software units. MS Word 2000 that is bundled with this box, is used for writing necessary documents by finance inspectors and office personnel. MS Excel 2000 is used to prepare some tables, charts. Users use MS Outlook 2000 for e-mail service.

Lotus Domino Server: This application developing software is used to construct databases in FIB only for saving records according to the departments. Each department used a manual entering record method in addition to its own database. No relationships and communications were built among departments. Because of this broken off client-server architecture, employee cannot reach any records and cannot make any search.

3.4.2. HARDWARE

Finance inspectors have Pentium 75 Notebooks to prepare their reports and to communicate with FIB executive. Administrative staff have desktop computers for following the correspondences and reports of the finance inspectors.

Pentium III 1 Gb RAM Servers: Used for replication and communication among Ankara, Istanbul and Izmir groups and FIB executive users as well as running the Lotus Notes database software.

Pentium III 512 Mb RAM Server running Exchange Server to control the mail traffic of finance inspectors and administrative staff.

Ethernet Switches: These equipments are used to connect all users to local network environment.

Scanner: Some of the printed documents and reports can be imported into digital environment to store in database and finance inspectors reach them for reference in the course of any inspection.
Printer, overhead projector and air conditioner are also among the available hardware.

### 3.4.3. NETWORK

**Leased Line:** Internet access of the sites established by leased line over Turkish Telecom

**Firewall:** A firewall implements the security policy that controls connections between trusted LAN and untrusted networks (Internet) passing through a gateway.

**Router:** It is used to route traffic both inbound and outbound directions. Each host sends packets according to its network configuration either to host, if host is in the same network, or to router (default gateway).
CHAPTER 4

FIB INFORMATION SYSTEM TO-BE STUDY

4.1. OVERVIEW OF NEW SYSTEM DEVELOPMENT

The newly developed system will include the ability to analyze inspectors’ requirements to do effective process analysis to develop more effective department delivery regiments, and to provide feedback and effective measures, which prove that the new programs are making a difference.

This section is aimed to define and specify:

- New organization
- Organization processes that are already used
- New organization processes
- Requirements that are not supplied in current system
- Finance inspectors and office personnel’s comments and ideas about organization process, responsibilities, and defects are used to build up the new system.

First, an overview of the re-structuring process itself will be presented:
All inspectors were charged to prepare an auditing report about “what their individual ideas and suggestions are about performance auditing”. This duty declared to the inspectors with the executive’s circular that was named TAMIM-1190 and published date was 22.08.2002. This circular was not shown in this thesis document due to the confidentiality, but affix of the circular is given in Appendix A. The chairman of the FIB together with two deputy chairmen examined inspectors’ reports, which continued to write during 2003. Approximately after one month from this assignment, inspectors were charged to send to the executive their any financial published documents or articles. The objective of this task collect and constitute the reference library for the capacity education of the inspectors. In addition to this study, FIB executive found a group from among the finance inspectors for measuring the satisfaction related to whether working processes are well done or not. This group that was named “Re-structuring Commission”, included one senior inspector as a coordinator and another duty to inform the chairman of the FIB. This commission work principles are listed in Appendix B.

Mainframe of the new system was created with contribution of the Re-structuring Commission, the chairman of the FIB and the two deputy chairmen and IT personnel. Top management wanted to use the existing human resources and technology while developing new processes as much as possible. The previous system would be the main reference of the re-structuring project, which aimed to be successful about objectives and goals realization.

Until September 2003 from the beginning of 2003, many studies were undertaken and meetings were held. These studies have aimed to come to the correct decisions about FIB re-structuring.

The first meeting was arranged in Bursa/Uludağ in 2003 March for brainstorming on Auditing Reports prepared, whose subjects were about re-structuring of the FIB. In this meeting each inspector presented their ideas about FIB problems, suggestions and future. The result of mentioned meeting showed that all finance
inspectors have got an expectation from the FIB executive and were having trouble about conducting their job at the right time.

The second meeting was arranged in Ankara in 2003 June. In the second meeting, all senior finance inspectors and top managers came together and previous meeting utilizations were studied. Re-structuring Commission noticed when examining the written auditing reports that all finance inspectors were complaining about the insufficient information communication between them and FIB executive.

- The current situation was studied under the following titles:
  - What have been the FIB strategies until now, or are there any strategies?
  - What are the processes?
  - What are the duties and responsibilities?
  - Which laws and regulations are referenced to power FIB?

- Whether work processes and re-structuring arrangements on these processes needed or not were determined.
- Vision, mission and goals were defined, which will be realized by the end of the 2004. In the 4.2, 4.3 and 4.4 sections of this document give detail about definition of these vision, mission and goals.
- Critical Success Factors were designated and explained details in section 4.5.
- SWOT analysis was made by the re-structuring commission and the leadership of the executive chairman of the FIB. Section 4.6 mentioned this analysis steps.
- 8 strategic activities were determined to realize goals and objectives that pointed out in section 4.7.

FIB executive decided that finance inspectors should reach the right information at any time or any place. Regular and systematic inspector feedback is essential for the continuous improvement of the workforce information system. For this reason, the computer center developed a prototype intranet web site for FIB to supply a platform for the finance inspectors to declare to the FIB executive their opinion or suggestion about
technical or administrative problem. An explanatory meeting was arranged and this site was introduced. Before this meeting, executive was sent the number of 1521 document to each inspector for declaration of his username and password to connect and use intranet services in safety manner, in September 2003. After this first step, inspector's personal and communication information were added to this site and finance inspectors started to save their time to call FIB executive about how many days they have got for leave and to declare that their notebook troubles. FIB executive wanted a forum part in this site to inform finance inspectors and keep their attention to any subject of the economy or finance.

Questionnaire was prepared to measure that administrative staff are pleased about their roles and responsibilities. This questionnaire was applied to only FIB executive staff because all work processes happened in the FIB executive. Questionnaires completed were examined by the director\(^3\) of the departments and IT staffs, who were named as a Quality Team. This team was assigned to be responsible for the administrative staff ideas and suggestions evaluation during the re-structuring processes. Any innovative idea or problems would be declared to the deputy chairman. Working principles are listed below:

- Every Monday, the Quality Team will arrange first meeting for planning the weekly schedule.
- Every Friday, second meeting will be arranged for comparing the previous meeting decisions are realized or why not,
- One of the IT staff will be responsible for the secretarial work that involved writing each meeting results to inform the top managers. This brief report consists of the first meeting decisions and second meeting results and reasons.
- At the beginning of the re-structuring works, Quality Team meetings will be weekly but when the new structure is defined and passed through the implementation step, meetings will be arranged monthly.

\(^3\) The term "director" refers the FIB departmental manager, and this word will be used in this manner in the rest of this thesis
As a result of all of these studies and the decisions taken, the rest of the study was carried out by the chairman for the inspectors, and by the re-structuring commission for the personnel. The top management, on the other hand, monitored the changes over time and ensured coordination alone, due to time constraints. All demands had already been identified; yet they existed in different recording environments. Following the integration of these separate pieces of demands and the process of identifying future steps, the deputy chairmen’s approval and information was obtained and the strategic plan, presented below, was jointly drawn.

The outcome of the work done as described in this section will be outlined in the following sections.

4.2. VISION

FIB focuses on strengthening the effectiveness and efficiency of the work process for top quality department according to the speed and reliability that provide finance inspectors with fast, relevant and integrated information for fighting against unregistered economy.

4.3. MISSION

FIB conducts independent and objective audits, investigations, and other reviews to support Ministry of Finance in its mission by promoting the economy, efficiency, and effectiveness and safeguarding the integrity of Ministry of Finance programs and operations.
4.4. GOALS AND OBJECTIVES

Goal 1: Leadership

Stable management and maintain control

Objectives:

1. Proactive and visionary leadership
2. Performance focused workforce
3. Learning and innovative organization

Performance Measures:

- Activity Report is prepared at the end of each 6 months
- A permanent third deputy chairman is required for FIB executive.
- Revised guidelines should be implemented and conducted for training assistant finance inspectors.

Goal 2: Integrity

Progressive, innovative and knowledgeable workforces should be maintained not only in the FIB executive but also in the Inspection Board’s inspection system as a whole.

Objectives:

1. Improve operating efficiency and internal controls by considering recommendations.
2. Provide consultation on current and proposed operating policies and procedures and changes in the system of internal controls.
Performance Measures:

- Standardized inspections should be conducted and the results should be saved for further reference.
- Reports should be prepared to assess and update existing standards.
- Guides should be issued, when there is an identified recommendation.

Goal 3: Effective Interaction:

Comprehensive, timely and transparent departments that meet inspector’s needs.

Objectives:

Effective interaction

1. Provides the right information at the right time and to the right employee.
2. Builds infrastructure and relationships to leverage change
3. Increases professional image and demand for using new systems.

Performance Measures:

Finance inspectors

- Meet regularly to exchange ideas and information on inspection concern.
- Post information on FIB intranet and percent of participation.
- Host audit forums to convey information to the largest number of finance inspectors.

Goal 4: Training:

Continuity about internal proficiency education
Objectives:

FIB executive should

1. Maximize finance inspectors’ knowledge, skills and abilities.
2. Further invest in finance inspectors’ training and job preparation.
3. Improve FIB’s ability to initiate and manage change.

Performance Measures:

The FIB executive

- Hold quarterly status meetings.
- Track number of finance inspectors trained.
- Review inspector’s evaluation results.
Figure 5: Strategic Information Systems Planning Conceptual Diagram

VISION
Provides finance inspectors with fast, relevant and integrated information for strengthening the effectiveness and efficacy inspection

Goal 1: Leadership
Objectives
- Proactive and visionary leadership
- Performance focused workforce
- Learning and innovative organization

Goal 2: Integrity
Objectives
- Improve operating efficiency and internal controls
- Provide consultation on current and proposed operating policies and procedures and changes in the system

Goal 3: Effectiveness
Objectives
- Provide the right information at the right time and to the right employee.
- Build infrastructure and relationships to leverage change
- Increase professional image and demand for using new systems.

Goal 4: Training
Objectives
- Maximize employee knowledge, skills and abilities.
- Further invest in employee training and job preparation.
- Improve FIB ability to initiate and manage change.
4.5. CRITICAL SUCCESS FACTORS

In FIB, the CSFs are categorized under matrix structure so that FIB’s organization can be affected by CSFs. The strategic perspective is related to core competencies accomplishing the organization’s mission and goals. The tactical perspective affects the organization activities with short-term objectives. Table 3 presents the categorization. Each success factor groups are discussed in more detail below.

Table 3 Critical Success Factors for FIB

<table>
<thead>
<tr>
<th>Critical Success Factors</th>
<th>Strategic</th>
<th>Tactical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Resources</strong></td>
<td>Management Support</td>
<td>Training</td>
</tr>
<tr>
<td></td>
<td>Liability</td>
<td>Trouble Shooting</td>
</tr>
<tr>
<td></td>
<td>Involvement</td>
<td>Empowerment</td>
</tr>
<tr>
<td><strong>Technological</strong></td>
<td>Networking</td>
<td>Legacy System</td>
</tr>
<tr>
<td></td>
<td>Internal Communication</td>
<td></td>
</tr>
<tr>
<td><strong>Policy</strong></td>
<td>Consistency</td>
<td></td>
</tr>
</tbody>
</table>

49
4.5.1. HUMAN RESOURCES

4.5.1.1. Management Support:

It is important to have support from all levels of management, especially from the top level. This enables coordination to be established swiftly and efficiently to implement the details of the plan. Otherwise accomplishing project goals, objectives and aligning these with strategic business goals will fail.

4.5.1.2. Liability

In FIB organization, liability is one of the most challenging critical factors. Because high-level security information is processed so that employee liability and organization secrecy are prioritized.

4.5.1.3. Involvement

Employee participation refers to the behaviors and activities that staffs perform in the system implementation process. An employee involvement concerns a psychological state of the individual, and is defined as the importance and personal relevance of a system to a staff. Employee involvement and participation will result in a better fit of user requirements achieving better system quality, use and acceptance.

4.5.1.4. Training

The training plan should take into consideration both technical staff and finance inspectors. "When is training needed?" "Who needs training?" "What needs to be
thought?” and “Is the training successful or not?” are questions which are important to improve the knowledge of the employee for the implementation of new system.

4.5.1.5. Troubleshooting

This factor is related with the problem and risk areas that exist in every implementation. Troubleshooting should be included in the implementation plan. The adaptation and transfer of old data are important. The time and effort involved in the transfer of data from previous systems should not be underestimated.

4.5.1.6. Empowerment

Project team members must be empowered to make quick decisions to reduce delays in implementation related to slow decision making. FIB should attempt to make decisions as rapidly as possible because delays can have an impact on such a long-term project.

4.5.2. TECHNOLOGICAL

4.5.2.1. Networking:

New technologies require expertise, skills, motivation and time. They also often require leveraging of information outside the organization. Networking is seen as a tool to access current knowledge about technologies and law.

4.5.2.2. Internal Communication

Communication should be of two kinds. These are communication in the project team and the whole FIB organization. Not only sharing information between the project
team, but also communicating to the whole FIB is important. Information asset are needed for the results and the goals of each implementation phase.

4.5.2.3. Legacy System

Legacy systems that encapsulate the existing organization processes, structure, culture, and information technology, are prior to the FIB. They are a good source of information for FIB implementations and for the possible problems that can be found during the implementation. Because of this, deciding which legacy systems will be replaced is critical.

4.5.3. POLICIES

4.5.3.1. Consistency

Continuous improvement of each CSF is essential. In order to implement IS plan effectively, organization’s policies must be stable. In FIB organization, senior managers are changed every 6 months and top manager changes after almost every election. Consequently, the initial funds expended for the plan have been wasted, and none of the quality improvements were realized. Often the deficiencies go undetected because there is no auditing plan in effect.

4.6. SWOT ANALYSIS

Before identifying the future notions of FIB such as its mission and vision, the finance inspectors were asked to prepare a report focusing not only on the roles FIB should assume in the future, but also on the institution’s recent policies and performance. The inspectors thus identified the internal strengths and weaknesses of the institution, as well as the opportunities and threats stemming from certain factors. Later, these reports were taken to the FIB executive and meetings were held for the chairman,
the deputy chairmen and the re-structuring commission. During these meetings, the factors in and outside institutional control and the factors causing vagueness were identified as follows:

4.6.1. **STRENGTHS**

- All finance inspectors' work as a general manager in the name of the finance minister.
- They have got all kinds of inspection and auditing authority
- If any employee is working in the Ministry of Finance, FIB can commission his/her, during re-structuring progress.

4.6.2. **WEAKNESSES**

- The deputy chairman of the FIB has changed in the 6 months.
- The finance inspectors are reassigned after education and experience.
- Difficulties arise in hiring and retaining finance inspectors with appropriate expertise.

4.6.3. **OPPORTUNITIES**

- The Ministry of Finance supports training courses or graduate programs.
- No barrier or limitation to invest in needed technology for re-structuring.
4.6.4. THREATS

- "Public Financial Management And Control Law": The purpose of this Law, if passed, is to regulate the structure and functioning of the public financial management, the preparation and implementation of the public budgets, the accounting and reporting of all financial transactions, and financial control in order to ensure the effective, economic and productive collection and utilization of public resources, accountability and fiscal transparency in line with the politics and objectives covered in the development plans and programs.

- Fast technology investments and development are difficult to follow. They also make existing equipment obsolete.

- Changes in the role of the government impede the continuity.

4.7. STRATEGIC ACTIVITIES

After having completed the work described in section 4.5 and 4.6, strategic plan activities were started to materialize the strategic plan objectives during FIB’s 2003-2005 year period. These activities are listed below according to the objectives explained in section 4.4. Activities were classified by the author of the thesis under control of the deputy chairmen and with reference to the objectives.

Activity 1: Finance inspectors can access the FIB executive when they are not in any group and even when it is not working hours (Goal: Effectiveness).

Firewall hardware, which is bundled with VPN connection, will be bought, and Dial-up communication will be supplied from the existing ISP for all finance inspectors (Objective 2).
Activity 2: Proficiency education can be traced using the Internet technology (Goal: Training).

FIB intranet used to educate finance inspectors and videoconference system will be set up for each group and the FIB executive. The FIB portal will always be kept daily and update duties belong to the IT staff, but information will come from the top managers. Any seminar or meeting will be arranged in any group. Therefore, education finance inspectors do not need to make this seminar or meeting in three groups at the different times (Objective 3).

Activity 3: Finance inspectors can follow all kind of reports prepared (Goal: Integrity).

Scanned reports will be reached from the FIB portal, but only Auditing and Reply Reports will be taken (Objective 2).

Activity 4: Finance inspectors and top managers can reach the Ministry of Finance using all automation projects, SAY2000i, VEDOP, BIDDEP, with high authorization and from any location (Goal: Effectiveness).

VPN connection will allow the finance inspectors reach the other automation project securely (Objective 3).

Activity 5: Communication among three groups and the FIB executive will be enabled by not using phone technology (Goal: Effectiveness).

Message board and forum part is used for communication among finance inspectors using FIB portal (Objective 2).

Activity 6: Finance inspectors can be informed about their own documents, which come to the FIB executive in the tour period (Goal: Integrity).
Incoming documents department database will be open for each finance inspector, but only his own related documents will be received (Objective 1).

Activity 7: Finance inspectors do not send any document or fax of request for any kind of leave (Goal: Effectiveness).

Leave request and action declaration documents will be sent and will follow using FIB portal (Objective 1).

Activity 8: Finance inspectors will know and trace whether any inspection assignment is realized, and, also, FIB executive can reach the inspection mission statistics (Goal: Integrity).

Commissions following process will be created and statistics about duration of the mission etc. information will be traced (Objective 1).

Activities 1, 2, 4, 5, 7 and 8 aim to obtain technological CSF as mentioned in section 4.5.2. Because these CSFs can be realized with inspectors’ dial-up connection from the inspection areas and information sharing between executive and inspectors.

Activities 3 and 6 aim to achieve participation as mentioned in section 4.5.1.3 and Empowerment in section 4.5.1.6. For the reason that following the inspectors’ reports, documents and articles can enhance their participation in executive strategic activities.
CHAPTER 5

IMPLEMENTATION

Classification of implementation into smaller parts helps IT staff to develop more manageable segments with defined, measurable business results (Fichman, Mosses 1999). In respect to this approach, FIB implementation planning is prepared base on the eight strategic activities, defined in the previous section.

As a result of all the reports, opinions and suggestions supplied by the finance inspectors and examined by the top management, and owing to the new demands, it was evident that the present system needed to be restructured rather than revised. There is no technical and knowledgeable personnel who can identify the necessary technology and tools needed for such a system. Therefore, in March 2003, the author of this thesis was assigned to restructure the operations of the departments in FIB and analyze needs by the then senior deputy chairman, with the approval of the chairman, the junior assistant chairman and the re-structuring commission. Throughout my assignment, I examined all software and hardware which might be of use to FIB. The author of this thesis had already concluded that most public institutions use ORACLE database for relational service operations. Since this database was perceived to be advantageous for many units of the Ministry of Finance, I was sent to an ORACLE developer 9i training in April 2003 to learn more about the product and identify possible uses in FIB. During this period, I also implemented a questionnaire on behalf of the deputy chairmen to seek answers to the questions below:

➢ Who is in charge of what at FIB?
- Are there employees performing tasks outside their job description?
- If yes, is there anyone else to perform these tasks, or are the tasks a natural part of these employees’ job descriptions?
- What are the most challenging aspects of people’s jobs?

The main aim of this questionnaire was to determine whether there is a need for change in FIB’s assignment and operation directives. A secondary aim was to involve the extreme users in the new structure so that they would not object to it. This way, those people who would have to use the new system would actually be using one that evolved out of their own wishes.

All results were closely examined by the chairman and his deputies and transferred to me for a general assessment, together with their views and suggestions.

The questionnaire results and the reports containing the viewpoints and suggestions of the chairman suggested that the manual operations of the services needed to be more systematic, regular and simultaneous. The constant traveling done by the finance inspectors gave their job an independent nature and caused them to complain about not being able to keep close contact with the administrators.

Under these circumstances, the new system had to be essentially Internet-based and that is why the present Lotus Notes database, which better supports the hierarchical structure, was not considered. Another reason for this change was the termination of the agreement for the update of Lotus Notes and the high price demanded by the supplier. These factors urged us to consider other available products on the market. However, there was an issue with ORACLE database as well. In principle, the annual maintenance was going to cost 25% of the licence price, which meant re-purchasing the product every 4 years. Naturally, this was too costly a system for the 150 users of FIB. Eventually, the SQL Server2000 was chosen considering the small number of users and its reasonable price. To establish communication between this database and the browser, ASP was preferred because of lack of trained FIB personnel and time constraints. The free
resources of ASP was another factor in this decision. The Macromedia Dreamweaver and Fireworks MX 2004 were chosen as the development platform for the software. In the pilot study, the system was going to be set up with this language and supported in the future with ASP.NET. In the meantime, the technical personnel would receive training in ASP.NET and get involved in each step of the process, contributing their existing knowledge. This decision was made at a meeting attended by the deputy chairman, the branch director and myself. However, it was resolved in the same meeting that I would be working in the future directly with the deputy chairman instead of the branch director, which later caused several problems.

Subsequent to this meeting, I swiftly identified the general system needs. In order for a quick result, I initially started the design of the Document and Personnel Departments according to the new structure. Figure 13 (p.61) shows a step-by-step plan of the restructuring studies, including a 8:30 to 17:30 plan of a typical working week. After a 450-hour study done by 3 people, the system was launched on 01.01.2004.

A separate intranet site also needed to be designed in the meantime to solve the finance inspectors' problems and to enable them to see the efforts made for them at FIB. The finance inspectors had already specified the content of the site in their previous reports and it was the assistant chairman who decided on the outlook and order of the content on the screens. Each single screen was checked and approved by the deputy chairman upon its completion and the following screen was only designed after that. It took 2 months for the intranet to be completely designed and it has been in use since September 2003. No complaints have arisen since then relating to the site's functions or outlook.

The activities outlined in section 4.7 have been explained in the same line but with implementation actions and more detail below:

Activity 1: Adjudication was made in 2003 October and Cisco Pix Firewall was bought to supply VPN connection and secure Internet communication, because IBM
announced end of life of the IBM Firewall that was used in FIB system. Meteksan Company educated the FIB IT personnel during a week about installation of the firewall, using effectively, and monitoring the web traffic.

Dial-up connection was bought for each finance inspector from the same firm and Internet connection capacity was increased from 256 Mbps to 1 Gbps. All finance inspectors dial-up communication passwords and user names were distributed via a secret document by mail. The list of these passwords and usernames has been kept by one and only one IT staff under the control of the director. When that IT staff was absent, the director has to deal with in the coming requests and informed the staff about changes.

FIB web server was changed. In old structure, web server was built on Pentium 75 computer. This capability did not allow installing any application development tool on it, and changes were made by the other computer and transferred with a floppy disc, because existing firewall did not permit to connect to the web server inside the FIB LAN for safety structure. FIB Internet server was built up to the Pentium IV computer, and FIB Cisco Pix Firewall was installed to allow telnet communication with the Internet web server machine. This operation was obtained to connect IT staff to the Internet web server machine from the location. According to these applications, new FIB network structure was built as shown in the Figure 6.

Sixty-five notebook computers were bought in the 2003/October procurement for finance inspectors. These machines were distributed appropriately among finance inspectors and 5 IT employees.

FIB bought a peripheral device that has printer, fax, scanner and photocopy functionality, at the same procurement, especially for scanning of the existing paper based reports to convert digital environment and stored in the new database of the Report Department. This machine helps FIB not only to store hard copy reports, but also
send printed documents from the all three groups or any inspection location to the FIB executive directly.

SQL Server 2000 Enterprise software was bought to construct relational databases among departments. This software was selected because of the cost according to the ORACLE database and the performance according to the Microsoft Access Database.

Figure 6 depicts the new FIB network structure.
Figure 6: FIB New Network Structure
Activity 2: FIB Portal is used to declare when any conference or seminar was arranged as shown in Figure 7.

![Image of FIB Portal](image_url)

Figure 7: Declaration of The Seminar Announcement

If one of the finance inspector wants to participate in this seminar or conference, only informing the FIB executive by sending a message, again using FIB portal, will be sufficient.
Activity 3: Prepared reports were scanned in the FIB executive by the staff that works in the Report Department. Only Report Department employee, director and finance inspectors were authorized to use this part of the site. Reports were categorized according to the Figure 9. At the beginning of the system development, only the subject, prepared finance inspectors and date factors were important for searching function, but when as time passed and “Rapor Arama (Searching Report)” is used actively, the inside of the report become important. The FIB executive decided that finance inspectors send reports that were prepared as an electronic copy by mail or email and content of the reports could be kept in the report department database for searching details.
Figure 9: The Report Searching Process

New system allows finance inspectors not only search reports, but also reach their published article and documents. These articles, mentioned in section 4.1, were prepared by the financial inspectors and transferred to electronic environment by the executive IT staff. This part of the FIB portal is shown in the Figure 10.

Figure 10: Finance Inspectors Published Articles Searching Site
Activity 4: As shown in the figure above, the left part of the FIB portal is reserved to make an easy connection to the Ministry of Finance and to other automation systems. Before this application, finance inspectors entered different IP numbers to the browser and were not allowed to connect from any outside group building.

Activity 5: The Figure 11 form was prepared in FIB portal to communicate for the FIB executive and IT personnel with finance inspectors without using mail or phone.

Figure 11: New idea, suggestion and problem declaration form

The creator of the form is the only authorized person to close it. If any response or sufficient answer does not come, a problem will always exist. The deputy chairmen can see the whole submitted forms whether they are closed or not. The assistants see entry dates and person assigned information. These statistics and information give them a sight of the IT personnel or the director work well or not.
The Figure 11 is used by the finance inspectors to declare any suggestions, completions or problems to the IT personnel, but the Figure 12 is used for sharing their ideas or comments about a financial subject.

Forum creator can be anyone, but the control of the subjects belongs to the deputy chairmen, and they can close the forum subject, if nobody participates during one month.

Figure 12: New Forum Creation Site

Activity 6: Finance inspectors leave request process is completely related with both the personnel department and the documents department. Because of this relation, new system processes are developed with examining both these departments together and detail milestones of the project is shown in the Figure 13 and Figure 14.
<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
<th>Predecessors</th>
<th>Resource Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.1 Project Analysis</td>
<td>6.3 days</td>
<td>Thu 1/13/03</td>
<td>Wed 1/28/04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.1.1 Interview with director of the departments</td>
<td>3 hrs</td>
<td>Thu 1/13/03</td>
<td>Thu 1/13/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.1.2 Interview with documents service personnel</td>
<td>2 hrs</td>
<td>Thu 1/13/03</td>
<td>Thu 1/13/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.1.3 Interview with personnel service staff</td>
<td>2 hrs</td>
<td>Thu 1/13/03</td>
<td>Thu 1/13/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.1.4 Analysis of these services personnel requirements</td>
<td>1 hr</td>
<td>Thu 1/13/03</td>
<td>Thu 1/13/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.1.5 Project definition and the determination of the targets</td>
<td>1 hr</td>
<td>Thu 1/13/03</td>
<td>Thu 1/13/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.1.6 Hardware and software requirements definition</td>
<td>5 hrs</td>
<td>Fri 1/14/03</td>
<td>Fri 1/14/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.1.7 Prepare the project management plan</td>
<td>13.16 days</td>
<td>Fri 1/14/03</td>
<td>Fri 1/14/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1.2 Project Design</td>
<td></td>
<td></td>
<td></td>
<td>Uitem</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1.2.1 Draw work flow and activity diagrams</td>
<td>11 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Uitem, Utem</td>
</tr>
<tr>
<td>12</td>
<td>1.2.2 Documents and Personnel Departments databases design</td>
<td>24 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Utem, Otem, Ozem</td>
</tr>
<tr>
<td>13</td>
<td>1.2.3 Set the relations among tables</td>
<td>20 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Ozem, Ozem, Utem</td>
</tr>
<tr>
<td>14</td>
<td>1.2.4 Design to the user interfaces</td>
<td>13.6 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Ozem, Ozem, Utem</td>
</tr>
<tr>
<td>15</td>
<td>1.3 Coding</td>
<td>125 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Ozem, Ozem, Utem</td>
</tr>
<tr>
<td>16</td>
<td>1.4 Testing</td>
<td>20 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Ozem, Ozem, Utem</td>
</tr>
<tr>
<td>17</td>
<td>1.5 Adjust the Changes</td>
<td>26 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Utem, Utem</td>
</tr>
<tr>
<td>18</td>
<td>1.6 Introduce the new system and train the end user</td>
<td>66 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Ozem, Ozem, Utem</td>
</tr>
<tr>
<td>19</td>
<td>1.7 Training to the IT personnel</td>
<td>42 hrs</td>
<td></td>
<td></td>
<td></td>
<td>Trainer</td>
</tr>
</tbody>
</table>
Figure 14: The Gantt Chart of Developing Documents and Personnel Departments New Processes
5.1. DOCUMENTS DEPARTMENT’S PROCESSES

Incoming Documents Department’s processes are associated with the other departments in the FIB, because incoming documents are directly related to the other department processes. In the old system, incoming documents information was registered manually and was paper-based. Documents were kept in files in the FIB and this procedure was traced by the Document Department employee in the previous system, which puts an overload on the employee.

The new system was planned to be used on the browser, the screen appearances were designed taking the ease and efficiency of both the personnel and the inspectors into consideration. For this reason, in the event that a new demand was made after the design of a screen, correcting it was not a major problem. However, it was not easy to design the database that formed the backbone of the entire system. An incorrect or missing relation design required all structures and tables to change accordingly. Another reason for change was misperceived demands. The ER diagram in Figure 15 was prepared disregarding document relation. Even though relations were included in the diagram, it was evident after testing its accordance with normalisation laws that some entities required separate tables (For example, tblEvGelenEk, tblServis, tblEvGidenEk, tblEvTur). Following these changes, the current ER diagram evolved as shown in Figure 15 for Document Department’s database and in Figure 16 for Personnel Department’s database.
Figure 15: ER Diagram of the Documents Department’s Database
Figure 16: ER Diagram of the Personnel Department's Database
After database design was completed, Document and Personnel Departments' end user screens were designed for the FIB portal.

The page number part on Figure 17 is used to show all of the document records kept ten by ten in each page. All of these records are printed weekly, using the “Yazdır (Print)” link of the same intranet page to print the ten records of the active page.

**Figure 17: Incoming Documents Record Page**

In the figure above “ Düzel (Edit)” link of the FIB portal is used to correct the already entered document. When clicking the “ Düzel” link, the figure below is seen. “Harici İlgi (External Relation)” button is used, when the incoming document has got a relationship with a previous sent incoming document and this document’s number and date information is added to use this button. “Dahili İlgi (Internal Relation)” button is used, when this document is related with a previous outgoing document that sent this document’s coming department from the FIB.
In the Figure 18, "Takibat" part for each document record is used to determine that any previously recorded incoming or outgoing documents are related to new incoming records. If any relation occurs, previously incoming and/or outgoing document’s date, subject information can be seen by clicking the "Takibat" link in Figure 19.

This link enables the user to reach all related prior information related to a specific document as shown in Figure 20.
GELEN EVRAK DEFTERİ

Figure 20: Related Document’s Record Page

After entering the incoming document, the deputy chairman is informed via e-mail and a linked message is seen on the main page of the FIB portal about a document that is waiting to be assigned to the related department. The page of the document assignment is realized, when the deputy chairman clicks to this link, Figure 21 is shown on this page.

GELEN EVRAK DAĞITIM - YÖNLendirME

Figure 21: Assignment to the Incoming Document Record’s Page
The deputy chairman sees the document's date, number and the subject information. “Yönledir (Assign)” button, as shown in Figure 21, is used to assign the department about the document’s processes. The deputy chairman only selects the related department, according to the document’s subject. After this selection, when “Assign” button is clicked, this information will be recorded automatically to the incoming document’s database of the same document’s “Department” part as shown in the Figure 21.

For example, assigned documents to the Personnel Department are shown as a linked subject in this department’s main page at the left part as in the Figure 22.

![Figure 22: Main Process Following Page of the FIB Intranet](image)

The Personnel Department employee clicks the linked subject to see the assigned incoming documents and Figure 23 below appears. Employee enters the document’s number to be kept in the “Dosya No (File Number)” part of this page and if she wishes, she may add a reminder note. When the employee checks the “Tamam (Okay)” box for the assigned incoming document, whole processes will be completed for this incoming.
document and then any search or edition process will be made in the Incoming Document Department records about this document using the Figure 23, because the completed process documents can not be reached from any department's intranet page without Document Department.

Figure 23: Assigned Incoming Document Record's Trace Page

5.2. LEAVE REQUEST PROCESS

This system is used to track finance inspector's leave status:

1. Leave request form is filled in the electronic environment by the finance inspector.

2. When leave request form is submitted, this request information, name, entry date and document number, is inserted in the incoming document departments database, and a notification e-mail is sent to the deputy chairman. Therefore, he could be informed, even if he is out of the ministry. Also the deputy chairman notified can see the request via the FIB portal whether to approve it or not.

3. If the request is approved, an automatically generated information form is sent to the finance inspector. If the request is approved, return date, number of the leave day and remaining leave day information are updated in the database.
4. When the finance inspector returns, he has to fill and submit a form to inform the FIB.

![Diagram of the new leave request process]

Figure 24: Use Case Diagram of the New Leave Request Process

In section 3.3.3.1 Figure 4 (see p.29) shows the old Leave Request process. As shown in Figure 24, the new system is reduced the hierarchical procedures in the FIB. According to the new leave request process, the finance inspector fills the form below, using the FIB Internet site and when he logs in the site, he can access only his own existing leave day information. This form is prepared using the original physical form. Requested information is filled by the finance inspector and form’s “Sayı (No)” and “Tarih (Date)” information is recorded by the database of the incoming documents department. Finance inspectors can behave as a General Directorate, they could not inform the FIB, send any investigation report or make any correspondence with the any department of the government. In this respect, if a finance inspector sends any documents to the FIB FIB executive, Documents Department employees cannot know, what the following document’s number of the finance inspector is. In the new system, electronic forms or documents are prepared to assume that the finance inspector enters
the necessary document’s number manually, but this system is only used for incoming
documents from the finance inspectors.

Figure 25: The Leave Request Form

As shown in Figure 25, the middle part information of the form is related to the
personnel department’s database, because finance inspectors and administrative
personnel information are kept in this department database. Requested dates are
calculated automatically and reduced from the amount of the existing leave dates. This
process is realized automatically, when the deputy chairman approves the request. The
staff of the Personnel department can see each finance inspector’s leave information
from the “Izın Takip Formu (The Leave Trace Form)”.
Figure 26: The Leave Trace Form

In Figure 26 form “EKLE (Add)” button permits the Personnel Department staff to fill leave information, shown in the Figure 27, about finance inspectors, send leave requests by mail, because the new system cannot be used completely at first. However, the passage to the database is made suddenly, and the information is needed to record correctly and daily, but if the finance inspector uses the electronic form, entered information is seen on this following form without any extra data record.

Figure 27: Enter Leave Page
If any mistake occurs when the inspection filled to the leave request form, personnel staff can correct this coming form from the screen, shown in the Figure 28.

Figure 28: Edit Leave Request Page

5.3. SYSTEM PERFORMANCE

Some quantitative measures of the performance of the new system have been briefly evaluated below:

5.3.1 DOCUMENT ENTERING PROCEDURE

Before: Registering each document was done manually. First a document registered to the notebook (average duration 2 min). After this recording phase personnel register the document to the Lotus Notes System (average duration 3 min). So before the new system this process took about 5 minutes.

After: This value is reduced to 2 minutes.

Measurement procedure: Before and after the system, registering procedure duration has been observed for 50 documents to calculate these values.
Major effect: the hard copy procedure is not performed in the new system.

Result: %66 increase in performance.

5.3.2. LEAVE TRACE PROCEDURE

Before: An inspector should send surface mail to ask for leave request. Completion time of this procedure depended on delivering surface mail duration. Average value was 3 day.

After: Online completion of the leave request form takes approximately one minute. After submitting the form, approval and reply procedures take 1 day.

Major Effect: Leave Request procedure can be carried out with new system. So there is no requirement to send a hard copy for the leave request.

Result: Duration is dramatically reduced (from 3 day to ~1 day) and made easy.

5.3.3. DOCUMENT SEARCH:

Before: Records could not be searched because of the system ability. All searches could only be done on the hard records. This procedure would take 15 minutes if the search was done according to subject and 2 minutes if the search was done according to document number.

After: Each field can be searched regarding the document. So search procedure takes approximately 0.5 seconds.

Measurement procedure: Search duration has been recorded for 50 random searches.
Major effect: using relational database system has reduced this duration. Also after the new system, there is no need to search on the hard records to find document information.
CHAPTER 6

CONCLUSIONS

This study has aimed to gather all finance inspector’s separate information and different ideas about the FIB re-structuring work. An analysis of all of them was carried out using SISP perspective, and the strategies were determined according to the FIB vision. A new system was designed based on successful strategies. When this plan was constructed, USA and England Ministry of Finance strategic plans were examined and their planning structure was used as a reference. Turkish FIB was modeled completely after the France inspection system. Yet, in FIB structure, differentiation of departments like Tax Auditing, Internal Auditing, etc. does not exist. FIB is responsible from all of them and all finance inspectors can be commissioned to one of them. The main objective of the re-structuring work was to be able to follow all related information in an easily reachable standard form.

FIB portal has got two phases. One of them based on the administrative personnel work processes. The other is for the finance inspectors, they have got active use of the FIB portal for reaching and searching prepared reports, published articles, declaration about their problems, creating or participating a forum subject, etc. This portal was designed to consist of more functional application kinds.
In Personnel Department application development, each finance inspector’s information is opened and seen by the other finance inspectors. Therefore, some of the finance inspectors react to this procedure because of privacy reasons. Only FIB executive and Personnel Department employees could reach all the information then.

Document departments process re-structuring development was designed to trace the document by the FIB intranet, but not applied until the system has been completely put to use.

Reports scanning and uploading to the FIB portal process can be seen by the whole finance inspectors at the beginning of the project, but because of the inspection ethics, any mission is assigned to a finance inspector, who can investigate the other one. Only selected reference reports will be uploaded to the FIB portal, but FIB executive will see all the prepared reports.

Activity 8, mentioned in chapter 3, will be started to realize in May 2004, because this activity is related to the Report Departments processes. Without completing personnel and documents service’s processes, report service re-structuring process project will not start.

The individual responsibility of the author in the whole FIB re-structuring work has been:

- To ensure that the reports and suggestions prepared by the financial inspectors during the restructuring process are integrated into one single plan after the FIB executive’s approval.
- To use the above-mentioned plan to deal with the issues and problems in order to make the current department more effective.
- To identify new business processes that will comprise a solution to the existing problems.
• To analyze the needs required by this structure. This mission was realized with one staff, with the aim of gaining time. Analysis tools or techniques were not known by other IT staff and implementation of the selected two departments’ processes has to be finished at the beginning of the 2004. However, requirements analyses were controlled by the director and deputy chairmen after each step was completed. If any mistake or misunderstanding occurred, the previous analysis was repeated before continuing.

• To carry out project management planning for the design, following the needs analysis, and to draw activity and ER diagrams.

• To inform and monitor the employee who are to write the codes for the implementation of this design. When the executive was assigned the IT staff to re-structure Personnel and Document Department until the beginning of the 2004, project management plan was prepared by the author of this thesis, details are in Figure 13. The most time effort was spent coding as seen in Figure 14. Web interfaces were designed by Özlem PEHLIVANOĞLU and the author of the thesis. These screens communication with the related databases and stored procedures were coded by Yaşar GÖZÜDELİ.

• To present in meetings organized by the FİB executive to introduce the system to end users and inspectors.

• To monitor the system constantly and to adapt user demands after checking their feasibility and necessity.

The most significant of these responsibilities was to act as a bridge between the FİB executive, departmental employee and computer center staff. Other significant responsibilities were to provide coordination between the top management and computer center staff and to make the design taking into consideration the demands and problems of end users.

Future work along the same direction could be:
• 2 months training will be given to computer center staff to ensure their active involvement in the restructuring of other departments. The training will focus on ASP programming language and SQL Server 2000 database. It will take place at the FIB computer center 5 times a day, 2 hours a day. The trainer is Yaşar GÖZÜDELI, computer engineer, who has made a big effort in the coding of pilot studies and who will temporarily work on the FIB throughout the project.

• The identification of the demands and needs of other inventory stock, budget and report departments will be done by the author of this thesis. Likewise, the steps needed for the design process will be done by the author of this thesis as well.

• 2 computer center employees will be assigned for each department during the implementation of the system following the 2-month training and, by the end of the 5 months, this will help build the structure which will enable the relational processing of all FIB departments on the Internet.

At the beginning of the project, it was supposed by many inspectors of FIB that these studies were a kind of inspection on performance measurement and unsuccessful staff were going to be unauthorized. This idea was spread among the IT workers, because the new system was built on Internet technology. However, anxiety and anger was removed by the support of the deputy chairmen for the re-structuring studies. Brainstorming meetings were arranged by the deputy chairmen leadership. Director was assigned to be responsible only from the behavior of the IT personnel; managerial control belongs to the deputy chairmen. The deputy chairmen got finance inspector’s controls; administrative personnel control was obtained by the director.

Employee resistance was solved by arranging meetings with the finance inspectors to encourage the active use of the FIB portal, and introduce all new additions of this site. A survey was applied to the FIB executive workers to realize their request about the new system and complaints about the old system. They participated in all the development steps to declare their opinion, and user manual documents were prepared and end users were educated by the IT personnel.
REFERENCES


APPENDICES

APPENDIX A: GÖRÜŞ VE ÖNERİ OLUŞTURULACAK KONULAR

1. Maliye Teftiş Kurulunun Yeniden Yapılandırılması
   - Maliye Teftiş Kurulunun misyon ve vizyonu ne olmalıdır?
   - Maliye Teftiş Kurulunun stratejik hedefleri ne olabilir?
   - Kamu yönetimi alanında meydana gelen değişimlerin Maliye Teftiş Kurulu’nun yetkileri ve iş yapma biçimleri üzerindeki etkileri nelerdir?
   - Teknolojide meydana gelen değişimlerin Maliye Teftiş Kurulu ve Maliye Müfettişlerinin çalışma esas ve usulleri üzerindeki etkileri nelerdir?

2. Denetim Faaliyetlerinin Geliştirilmesi
   - Denetim anlayışı ve usullerinde meydana gelen değişimlerin Maliye Müfettişlerinin çalışmalarına etkileri nelerdir?
   - Maliye Müfettişlerinin çalışma esas ve usulleri ile denetim teknikleri ve raporlama yöntemlerinin ortak standartlar altında geliştirilmesi için yapılması gereklidir瀏覽器 neler olabilir?
   - Yapılan teftiş ve denetimlerin yapıci ve öğretmen bir hale getirilmesi için neler yapılmalıdır?
   - Maliye Müfettişlerinin çalışma anlayışlarını düzenleyen “Mesleki Etik Kuralları” ne şekilde düzenlenebilir?

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3. Maliye Müfettişleri ve Maliye Müfettişleri Yardımcılarının Eğitim İhtiyaçlarının Karşılanması

- Hizmet içi eğitim anlayışında ortaya çıkan yeni gelişmeler Maliye Müfettişlerinin ve Maliye Müfettiş Yardımcılarının eğitim ihtiyaçlarının karşılanmasına ne tür katkı sağlayabilir?
- Maliye Müfettiş Yardımcılarının işe alınması, eğitimi ve refakat çalışmalarının etkin ve verimli bir biçimde yerine getirilebilmesi için alınması gereken tedbirler neler olabilir?
- Yeterlilik sınavlarının kapsamsı, yöntem ve sonuçları bakımından etkinliğin arttırılması için ne gibi değişiklikler yapılabilir?
- Maliye Müfettişlerinin yurtüstü yüksek lisans eğitimine özendirilmesi için alınması gereken tedbirler nelerdir?
- Maliye Müfettişleri arasında bilgi ve beceri paylaşımını artıracak ortak platformlar nasıl oluşturulabilir?
- Maliye Müfettişlerinin ekonomik, mali ve hukuk konularında bilgi birikiminin geliştirilmesi için ne tür tedbirler alınabilir?
- Maliye Müfettişlerinin akademik çalışmalarına teşvik ve akademik düzeyde yayın yapma faaliyetleri nasıl teşvik edilebilir?

4. Diğer Konular

- Maliye Teftiş Kurulunun çalışmaları hakkında kamuoyunun bilgilendirilmesi ve Maliye Müfettişliği mesleğinin saygınlığının pekiştirilmesi için ne türlü araçlardan faydalanılabilir?
- Maliye Müfettişlerinin çalışma koşullarının iyileştirilmesi için ne tür tedbirler alınabilir?
- Yukarıda sıralanan konular hakkında yapılması gerekli yasal düzenlemeler ile yönetmelik değişiklikleri ne şekilde olmalıdır?
APPENDIX B: KOMİSYON ÇALIŞMA İLKELERİ

- İlk toplantıda “Komisyon Başkanı” ve “Komisyon Sekreteri” belirlenmesi,

- Teftiş Kurulu Başkanı, Başkan Yardımcısı ve grup başkanından oluşan 7 kişilik üst kurulun haifalık çalışma sonuçlarını değerlendirmesi,

- Komisyon Sekreterlerinin mtik mail adreslerini kullanması, bu adreslerin tüm kurula duyurularak önerilerin bu mail adresine gönderilmesi,

- Komisyonların ilk toplantıda çalışma usul ve yöntemlerini yazılı olarak belirlemesi,

- Konular üyeler arasında paylaşılanlar belir bir zaman çizelgesi içinde tamamlandığa sonuçlar birleştirilebileceği gibi, bölme yapmadan birlikte çalışma esası da kabul edilebilir.

- Komisyonların görev alanlarındaki konularda çalışmalarını sürdüren Müfettişlerin ilgili komisyonlara iştirak etmesi,

- Önceden aynı konularda görevlendirilmiş yukarıda belirtilen Müfettişlerin çalışmaları rapora bağlanmamışsa, çalışma doküman ve sonuçlarının komisyona devredilmesi,

- Intranete Müfettişlerce Paylaşılan Kaynaklara çalışmaların tüm mutfettişlerce takibi açısından yazılan kısımların konulması,

- Komisyon çalışmalarında başvurulacak kaynakça listesinin intranet ortamında paylaşılma sunulması,

- Grup çalışmalarının verimli olması için gerekli görülmektedir.