

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
SCHOOL OF INFORMATION STUDIES FOR AFRICA

HUMAN RESOURCES MANAGEMENT INFORMATION SYSTEM(HURMIS)
FOR
ETHIO-JIBOUTI RAILWAYS COMPANY: EMPLOYEES' PERSPECTIVE
(EJRC)

A thesis submitted in partial fulfilment of the
requirements for the degree of Master of Science in
Information Science in Addis Ababa University

by

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ADDIS ABABA UNIVERSITY
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HUMAN RESOURCES INFORMATION SYSTEM FOR
ETHIO-DJIBOUTI RAILWAY COMPANY

By

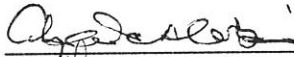
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DEDICATION

This thesis is dedicated to my father Sheik Abbas Tosha

and

to my mother

Zara Haji Abdulahi

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This paper could not have been written without support from the home front. Had my wife Sa'ada Abraham had not taken the full responsibility of our family for the last three years, the rigorous class program of SISA would have not been overcome.

ABSTRACT

This study has been carried to propose an integrated Human Resource Management Information System (HURMIS) that consists of Employee Communication System (ECS) to facilitate information exchange between employees and management, Personnel Research System (PRS) to generate new information for decision, and information service center to provide access to information and promote the use of information. It is integrated so that the activities of each are interrelated with those of the others. The study envisioned such a system as a support system to top executive strategic activities. The marginal contribution of computer in this regard has been theoretically substantiated in two dimensions: top management activities and decision making. Furthermore from the theoretical analysis a framework has been developed to guide the evaluation and the design of the existing and proposed HURMIS. Moreover the factors that influence the characteristics of information system such as the management needs for information, company value, company information policy, and reciprocity with environment have been highlighted. Accordingly, data that are pertinent and relevant to the existing HURMIS are collected. For the purpose of collecting data, methods, such as, questionnaire method, interview method, and literature review have been used. The study reveals that the existing HURMIS in EJRC is functionally and structurally deficient, and without reciprocity with its environment. The thorough analysis of data made certain that it is the management and the shareholders that share the blame for the inadequacy of the information system. The responsibility of bringing the change is ascribed to the board of directors.

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LIST OF ABBREVIATIONS

AAU = ADDIS ABABA UNIVERSITY

AACC = ADDIS ABABA COMMERCIAL COLLEGE

ECC = EMPLOYMENT COMMUNICATION CENTER

ECS = EMPLOYMENT COMMUNICATION SYSTEM

EJRC = ETHIO-JIBOUTI RAIL COMPANY

FERC = FRANCO-ETHIOPIAN RAILWAY COMPANY

HRD = HUMAN RESOURCES DEPARTMENT

HRPF = HUMAN RESOURCE POLICY FORMULATION

HURID = HUMAN RESOURCE INFORMATION DEPARTMENT

HURMIS = HUMAN RESOURCE MANAGEMENT INFORMATION SYSTEM

IERC = IMPERIAL ETHIOPIAN RAILWAY COMPANY

IGS = INFORMATION GENERATION SYSTEM

MIS = MANAGEMENT INFORMATION SYSTEM

OM = ORGANIZATION AND MANAGEMENT

PEC = POLICY ON EMPLOYMENT COMMUNICATION

PISC = PERSONNEL INFORMATION SERVICE CENTER

PISS = PERSONNEL INFORMATION SERVICE SYSTEM

PPR = POLICY ON PERSONNEL RESEARCH

PPIS = POLICY ON PERSONNEL INFORMATION SERVICES

TOHRIS = TOTAL HUMAN RESOURCE INFORMATION SYSTEM

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

The Ethio- Jibouti Railway Company (EJRC) is in acute business deficit conditioned by deficient technical and morale strength. To pull round the Company from the forthcoming tragedy, enhancing the morale and motivation of the employees is urgent and critical. For, it is labor-intensive enterprise in which the salary expense constitute 63% of its total expenditure. "In a labour-intensive industry...the relationship between increased productivity and employee morale is more direct than in other industries. To increase productivity, service organization[such as EJRC] must concentrate now more than ever on improving employees morale and motivation. Use of information has tremendous role in this regard. Managers who are generalists in directing people must have access to reliable information about the range of the[problem](Summers 1981:31-35).

Without information executives would have to rely on intuition or past experience which provide limited insight into the real problems and unreliable ways of dealing with them. Thus, the availability of efficient and pertinent information system for each specialized areas of management is extremely important in business (Awad 1979; 27; McFeely 1975; Saracevic 1975). To have such a system however there must be need for and, use of information. It is this intent that underlies the study.

This chapter is devoted to furnish the items of information relating to the project:

- (1) The statement of the problems;*
- (2) The justification of the study;*
- (3) The objectives of the study;*
 - (3.1) The general objectives*
 - (3.2) The specific objectives*
- (4) The scope and limitation of the study*
 - (1.4.1) Scope of the study*
 - (1.4.2) Limitation of the study*
- (5) The organization of the thesis*

1.1 STATEMENT OF THE PROBLEMS

The Ethio-Jibouti Railway Company (EJRC) financed partly by the Government of Ethiopia, and partly by the Republic of Jibouti has the Human Resources Management Information System (HURMIS) of a nonsystem type characterized by the following setbacks:

- Functional problems
- Structural problems
- Environmental - system reciprocity problems

The problems and their associated characteristics that will be discussed in chapter four were discovered during a preliminary and full-fledged investigation into documents.

1.2 JUSTIFICATION OF THE STUDY

In the study conducted recently the company is being faced with a state of downward trends in all respects: management, manpower, material and operation (Daniel/ABD Consult 1994). The prevailing declining conditions in the company were also confirmed by Dr. Abdulmajid Hussein, Minister of Transport and Communications, in his interview with the Ethiopia TV(Ethiopian Herald: April 17 1996). The joint Committee of Ethiopia and Jibouti held on December 11th, 1996 had informed the public of the purchase of six new locomotives and the decision to install new telecommunications line for the Company (Ethiopian Herald, December 12th,1996).

But nothing was said concerning the employees. The importation of technology gives only temporary solutions to the technical problems in some respect. It is the employees effort that determine the ability of the company to pull round and survive the crisis. "What a manager must do then is induce employees to contribute their efforts to the performance of the task at hand. This is the challenge of motivation" [Hampton (1977) 1981:43]

To motivate employees as Peter Drucker(1974) observed "The institution has to satisfy the ambitions and needs of its members and do so in their capacity as individuals."

The emphasis is on knowing the functional relationships between the employees needs and the job they are assigned to accomplish. For, the ultimate aim to know is to develop ways to match the employees with the jobs to motivate. It requires information generated, communicated, and utilised with the corresponding systems.

Considered from the above view points, the present HURMIS of EJRC is a nonsystem deprived of all capacities to generate, communicate, and promote the use of information in

resolving employees problems. The cause of these problems is the nonutilization of information by management. It is the result of impoverished style of top executives in managing the company. Such a style is conditioned by the non profit-cum-political value of the company.

The inculcations of value of information and promoting its use is urgent and critical. The role of the proposed HURMIS in this regard is tremendous.

(a) The Human Resource Information Communication System(HURICS) can help create mass movement, i.e., organize the workers for struggling to sustain the company.

One of the subsystems of HURMIS is its information communication system which use Newsletters and suggestion system, among others, as a medium for disseminating information among employees and receiving ideas from the Company. To organize mass movement of the employees around the single cause of maintaining the sustainability of the Company, the medium may be used to stimulate them in parallel directions:

- To revitalize the Company, the employees must participate by providing information and by undertaking certain activities. The employees who support the revitalization of their company need acknowledge those efforts. Newsletters build such acknowledgements.

On the other hand, newsletters may serve as a means to mobilize the employees to encourage the two governments give the company commercial privilege.

(b) The Human Resources Information Generation System has several support contributions:

- it provides management with authentic and thereby information for decision-making.
- it adds job enrichment for the staff. That is, it engages them in the attitude survey, exit interview, policy and programme audit, etc.
- it makes a company adaptive and compatible to its environment.

(c) The information service system has the following contributions.

- with its library services, assists management and personnel staff to keep abreast with the development in behavioral sciences.
- it supplies management with warning information by it personnel statistics service
- it can encourage management to use information in solving personnel problems.

1.3 OBJECTIVES OF THE STUDY

The general and specific objectives of the study are enumerated below:

1.3.1 General Objective

To elicit the opinion of the management together with that of employees to sensitize in the development of Human Resource Management Information System(HURMIS) guided by the concept of "Total Human Resources Information System" (TOHRIS).

1.3.2 Specific Objectives

The specific objectives of the study are:

- To analyze the information system needs of top management in managing the human resources of the Company.
- To determine the employees communication needs with management.
- To examine the current legal document for determining information requirements.
- To identify the problems of the current Human Resource process and analyze the underlying causes and make appropriate suggestions.

1.4 SCOPE AND LIMITATION OF THE STUDY

1.4.1 Scope of the Study

The study investigated the following issues:

- the status of HURIS in EJRC with particular reference to human resources information generation, communication, services, and utilization systems.
- company policies pertinent to these facets of information; and
- the attitudes and curiosity of top management, personnel officers, and employees on the existing information practices.

1.4.2 Limitations of the Study

First, the study was limited by budget. This constraint necessitated the use of systematic sampling of sample stations which arbitrarily excluded most stations from having equal chance of being sampled.

Second, there was political constraint which brought about the exclusion of part of the Company's employees in Jibouti. Even though they are very small in number as compared to that part of employees in Ethiopia, their impact would have served different analysis of attitude towards existing information practices and their curiosity but in no way affect the over all conclusion of the study.

1.5 Organization of the Thesis

The report consists of seven chapters. The first chapter highlights the problems; establishes justification of the study; elaborates the objectives; anticipates the significance of the study and indicates its scope and limitations. The second chapter furnishes the methodology employed in detailed. The third assessed the history of the Company.

The fourth chapter reviews pertinent literatures . The fifth discusses users needs analysis. The six highlights the proposed system.

The seventh chapter summarizes and concludes the report. and presents the suggested course of action.

REFERENCES

- Awad, Elias M. 1979. System Analysis and Design. Homewood, Illinois: Richard D. Irwin, Inc.
- Abdulmajid Hussien(Dr.).1996. Interview With Ethiopian TV. Ethiopian Herald. April 24th.
- Daniel Consult and ABD Consult. 1995. EJRC: An Assessment of Institutional and Managerial Framework Final Report. (Unpublished)
- Drucker, Peter F.1974.Management:Tasks, Responsibilities, and Practices. New York:Harper & Row.
- Ethio-Jibouti Joint Committee. 1996. Prease Release. Ethiopian Herald, December 12.
- Everhadt, C. Spencer. 1970. Organizing and Staffing the Office. In Hand Book of Business Administration, edited by Maynard. New York: McGraw-Hill Book Company.
- Hampton, David R. 1981. Contemporary Management. New York: McGraw-Hill Book Company.
- McFeely, Wilbur M. 1975. Organization Change and Organization Planning. In Management Development and Training Handbook, edited by Taylor B. and G.L. Lippitt. London: McGraw-Hill Book Company (U.K.) Limited.
- Saracevic, Tefko. 1975. Relevance: A review of and a framework for the thinking on the notion in information science. JASIS (Novemeber _December):84-106
- Summers, Donald B. 1981. Personnel Management in Banking. New York: McGraw-Hill Book Company.

REFERENCES

- Awad, Elias M. 1979. System Analysis and Design. Homewood, Illinois: Richard D. Irwin, Inc.
- Abdulmajid Hussien(Dr.).1996. Interview With Ethiopian TV. Ethiopian Herald. April 24th.
- Daniel Consult and ABD Consult. 1995. EJRC: An Assessment of Institutional and Managerial Framework Final Report. (Unpublished)
- Drucker, Peter F.1974.Management:Tasks, Responsibilities, and Practices. New York:Harper & Row.
- Ethio-Jibouti Joint Committee. 1996. Prease Release. Ethiopian Herald, December 12.
- Everhadt, C. Spencer. 1970. Organizing and Staffing the Office. In Hand Book of Business Administration, edited by Maynard. New York: McGraw-Hill Book Company.
- Hampton, David R. 1981. Contemporary Management. New York: McGraw-Hill Book Company.
- McFeely, Wilbur M. 1975. Organization Change and Organization Planning. In Management Development and Training Handbook, edited by Taylor B. and G.L. Lippitt. London: McGraw-Hill Book Company (U.K.) Limited.
- Saracevic, Tefko. 1975. Relevance: A review of and a framework for the thinking on the notion in information science. JASIS (Novemeber_December):84-106
- Summers, Donald B. 1981. Personnel Management in Banking. New York: McGraw-Hill Book Company.

CHAPTER TWO

METHODOLOGY

2.0 INTRODUCTION

It is a fact that the development of an effective information system that is capable of satisfying its users needs requires the participation of the users in the effort by providing their information needs. To this end sample and data must be collected, analyzed, interpreted and appropriate system should be developed. Such effort requires relevant and pertinent strategy and methods. Surveying is the strategy selected. The cost allocated for the study is meagre, and the time schedule established is also short. To obtain adequate information, under this conditions the only appropriate strategy is surveying.

Besides, it is worth noting that the study was based on the employee views and opinions on the current situation and that some interviews were done with some management simply to inform the researcher. The employees were targeted for their opinion was critical in designing the system, on the one hand, the measurement of their satisfaction or dissatisfaction with the existing human resource processes can be the main in put for determining the appropriate means of communication. At this juncture the employees reflect low morale according to the interview of OM analyst. The company has faced decline in productivity since '70s. To increase productivity EJRC must concentrate now more than ever on improving employees morale and motivation.

The following sections are devoted to the explanation of the methods used in sample selection, collecting and analyzing data, and in designing the proposed system.

2.1 SAMPLE SURVEY

To carry out the sample survey, the following step-by step measures are taken.

- sample collection;
- data collection;

2.1.1 Sample Collection

Objective

The purpose of sample collection was to select samples that could be representative of the population and get a specified amount of information that can be meaningful for necessary interpretation.

The population for the questionnaire were the 2290 employees of EJRC (found on the payroll of the company) with nonmanagerial positions and distributed over 32 stations between Addis Ababa and Dawalle inclusive, in the territory of Ethiopia. The population for the interview were 5 persons whose positions were Director General, Personnel Director, Legal Officer, and 2 OM analysts. For administrative convenience the area is classified into Dire Dawa region and Addis Ababa region with 1500 and 790 as stratum population respectively.

Method

The sample was selected using stratified systematic sampling method. Stratification is the division of the population to be studied into strata - sub population - according to administrative convenience, i.e., with field offices each of which can supervise the survey for a part of the population.... If a simple random sampling is taken in each stratum, the whole procedure is described as stratified random sampling. Stratified systematic sampling will be

more precise than stratified random sampling. This is when we draw a separate systematic sample within each stratum with starting points independently determined (Cochran, 1997:89,226).

The stratified systematic sampling specifies the method of collecting the sample, i.e, the objects that contain the required information. It does not specify a method of collecting or measuring the actual data(Mendenhall and Reinmuth 1982:688 - 689).

Procedures

For the selection of the sample the following steps were followed:

- Sample size determination;
- Specification of the stratum;
- Sample units selection;
- Sample allocation; and
- Sample selection;

Sample Size Determination

The population sample size was determined using the following formula for estimating population proportion in stratified sampling.

$$\frac{\sum_{i=1}^L N_i \sigma_i^2}{ND + \frac{1}{N} \sum_{i=1}^L N_i \sigma_i^2}$$

$$D = \frac{B^2}{4}$$

Whereas:

L = number of stratum

B = bound on the error of estimation

N = population

= variance of stratum

N_i = Stratum population

(source:Mendenhall/Reinmuth 1982:723 - 724)

According to the calculation done using this formula the population sample size is 221 (see, appendix II).

The employment of this formula is not without reason. " The size of the sample is not determined on any kind of " percentage" of the whole basis. For one thing, the geographical distribution of employees is relevant. The sample must be representative of the whole stations. Therefore, it is built up cell by cell rather than based on the population as a whole(see, Williams 1968). Then, carefully designed mathematical techniques must be used to select a representative sample of population to be measured and to ensure reliability of the data, particularly if projection of quantitative data to the total population are required(see, Rainie 1968)

Area stratification and sample allocation

The area occupied by the company within the territory of Ethiopia was stratified into two strata following the administrative structure of the company.

- Addis Ababa stratum

- Dire Dawa stratum

They have a population of 1500 and 790 respectively. The population sample size was proportionally allocated using the following formula (Source: Mendenhall/Reinmuth 1982:724)

$$n_i = n \left(\frac{N_i}{N} \right)$$

n_i = Stratum sample size

N = The company population

n = population sample size

N_i = Stratum population

- Addis Ababa stratum sample size

$$(790/2290)(221)= 76$$

- Dire Dawa stratum sample size

$$(1500/2290)(221)=145$$

Sampling of sample stations and allocation of stratum sample

Four sample stations were systematically selected from the frame (see, appendix III) using "the every Kth rule" ($K= 32 \setminus 4$. 4 is the sample size; see, appendix IV for its calculation). The randomly selected number (between 1-34) is 1. It is drawn randomly from 32 cards, neatly numbered, rapped and dropped in an envelope. The sampled stations include:

- Dire Dawa station

- Meiso Station

- Addis Ababa station

- Nazreth station

The stratum sample size was proportionally allocated among sampled stations using the above formula for proportional allocation.

TABLE I. Proportional Allocation of stratum sample sizes among selected stations

Stratum	Sample size	Sampling Units	
		Elements	Sample Size
Dire Dawa	143	600	132
- Dire Dawa			
- Meiso	76	50	11
Addis Ababa		450	68
- Addis Ababa			
- Nazreth	50	8	

Sample Selection

The sample was selected using systematic sampling technique. The population elements of each stations were divided by the corresponding sample size of the stations to find the k-th number. Accordingly,

$$\text{Dire Dawa station}(600/132) = 5$$

$$\text{Meiso}(50/11) = 5$$

$$\text{Nazreth}(50/8) = 6$$

$$\text{Addis Ababa}(450/68) = 7$$

According to these kth number, elements of the sample for each stations are selected from the rosters arranged numerically for them in accordance of that registered on the company payroll. Depending on the result sampling lists developed and used for the distribution of the questionnaire.

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According to these kth number, elements of the sample for each stations are selected from the rosters arranged numerically for them in accordance of that registered on the company payroll. Depending on the result sampling lists developed and used for the distribution of the questionnaire.

2.1.2 Data Collection

The methods that have been used are enumerated below:

- (1) The questionnaire method; and
- (2) The interview method.

The following sections are devoted to explain how each of these methods was used.

Questionnaire Method

The purposes of the questionnaire were to find out:

- employees views on the supervisors communication practices;
- application of suggestion system and grievance meetings;
- employees reflection on company performance; and
- their preferences for upward and downward communications .

To elicit the required responses smoothly close-end and open-end questions were developed.

The close-end questions followed the simple, direct, "Yes and No" style(see, appendix I).

It may be noted here informal discussion was used for verifying the validity of the collected responses wherever found necessary.

The techniques of distribution were of two types. At Addis Ababa and Dire Dawa stations, members of personnel divisions distributed the questionnaires in the presence of the researcher. However, at Nazareth and Meiso stations, the researcher carried out the distribution and collection.

Interview

The purposes of the interview were:

- identify the needs of top executives and personnel staffs for human resource information; and get their perspective that may affect the existing information system and the proposed one;
- assess the efforts of personnel staffs in auditing personnel policies and programmes;
- analyze the view of top executives ,legal advisor and staffs on employment communications;
- elicit the needs of personnel staffs for library service.
- ensure the validity and reliability of the response to the questionnaires.

The techniques used was semistructured personal interview. A list of those who were interviewed is given on appendix IV.

2.2 LITERATURE SURVEY

The subject-scope of this study is complex and multifaceted. On the one hand, it focuses on the current needs analysis. On the other hand, it is the subject of trend analysis regarding the value of the company and the style of its management to estimate their impact on the existing management practices.

To get insight on the issues the study into company documents on the one hand, and to develop theoretical background and obtain evidences to support any assertions in the thesis, on the other hand, made the literature survey necessary .

The collection of evidences involved careful selection and systematic adaptation of the excerpts to the objective of the study.

To collect the required literary evidences several monographs on human resource management, and the Rail Treaties, articles, letters, annual reports, research reports, and public documents pertinent to the company and job descriptions of the personnel staffs were investigated.

The centres from where the sources documents are obtained include:

- the company's personnel archives; offices of OM analysts and legal advisor;
- libraries of School of Information Studies for Africa (SISA), Addis Ababa Commercial College (AACC), and Ethiopian Management Institute (EMI).

2.3 DATA ANALYSIS

The collected data were analyzed using the following statistical and analytical tools.

- . tabular analysis;
- . historical analysis;
- . functional analysis;
- . force-field analysis;
- . alternative analysis; and
- . structural analysis

The tabular analysis was used for analyzing the response of employees to the questionnaires and estimate the population proportion thereof.

The functional analysis was employed to identify the influence of change in company value on the style of management and information use therewith.

The historical analysis was conducted to ascertain change in the development of the company and shareholders stake in it.

The force-field analysis was applied to identify the forces that were for and against the existence of Imperial Ethiopia Railway Company(IERC), the commercialization of the Franco- Ethiopian Railway Company(FERC) and Ethio-Jibouti Railway Company(EJRC). The IERC, FERC, and EJRC are nomenclatures assigned to the company that administers the railway that links Jibouti with Addis Ababa at different historical events. This shall be investigated in detail in the third chapter.

Alternative analysis was administered to compare the existing system against the proposed one for their benefit for management. For the purpose Mahler model(1968) was used as a tool.

The structural analysis was done to investigate the structural conditions of the current system. Drucker's model of grouping activities was used for the purpose of analysis.

2.4 DESIGNING THE STRUCTURE OF HURMIS

To group information activities two models were used:

- . isoteleological model;
- . organizational model; and

According to isoteleological and organization models it is the unity of purposes and interdependencies between activities that were taken as criteria to group information activities.

A purpose at a particular level may admit of being recognized to be contributory to a purpose at a more general level. This sort of relationship between and/or among purposes may be considered to be a case of unity of purpose (Bhattacharya, 1978:7). Accordingly, Personnel Research and Personnel Audit were envisioned as having a unity of purpose: generating new information. Hence, organized under Personnel Research and Audit Section.

Likewise, the company library and personnel statistics are mean of providing pertinent data on personnel issues and organized under Personnel Information Service Center (PISC). The same for Employment Communication Center (ECC).

On the other hand, the interdependence that existed between subsystems was also used to organize Human Resource Information Department (HURID). The interdependence particularly shows the flow of information (Agarwal, 1989:230). As such the suggestion system feeds Personnel Research with employees opinions that may need further research (Yoder, 1956:717). Personnel Statistics provide personnel research with statistical measurement such as absenteeism rate that warns attitude survey. Personnel research

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provides its result for publication. Such interdependence was taken as a base to organize the three subsystems under the rubric "Human Resource Information Department" (HURID).

According to the procedures of structured design, HURID and its subsystems and units therewith are arranged hierarchically to create authority-responsibility relationship between them.

REFERENCES

- Agarwal, S.D. 1989. Organization and Management. New Delhi: Tata Publishers.
- Bhattacharya, G. 1978. Information Science: A unified view through a system approach.
Calcutta: IASLIC .
- Cochran, William G. 1977. Sampling techniques. New York: John Wiley & Sons.
- Mendenhall, Williams and James Reinmuth. 1982 . Statistics for management and
Economics. 4th ed. Boston, Massachusetts: Duxbury Press.
- Raince, L. 1968. Marketing research. In Handbook of business administration, edited by
H.B Maynard. New York: McGraw-Hill Book Company
- Williams, J. 1968. Attitude Survey. In Handbook of business administration, edited by H.B.
Maynard. New York: McGraw-Hill Book Company.

CHAPTER THREE

JIBOUTI-ADDIS ABABA RAILWAY COMPANY

3.0 INTRODUCTION

The Rail way line that links Jibouti with Addis Ababa has a history of almost a century. The current problems of the company are the consequence of influences accumulating through decades. A knowledge of that influence is essential to a proper understanding of the current situations of HURMIS in EJRC. It is presented as an illustration of what seem to be the major facts and trends in its management. At the same time attempts have been made to provide sufficient detailed information so that the generalization do not hang in a vacuum. Its treatment is both topical and chronological.

3.1 IMPERIAL ETHIOPIA RAILWAY COMPANY:1897-1908

The idea of constructing a railway to link Addis Ababa with the east coast was first conceived by Menelik's Swiss adviser, Ilg, who arrived in the country in 1877(Pankhrust 1968:304). The initial step taken by Mr Ilg was to prepare an attractive model with rails, locomotives, and carriages to interest the king of Shewa in the project (Keller 1918). On February 11, 1893 Menelik wrote Ilg a letter empowering him to study the project and set up a company. Succeeding in this regard, Ilg obtained the concession from Menelik on March 9, 1894 to build a Compagne Imperiale des Chemin de Fer Ethiopiens. Encouraged by concession Ilg and his friend Chefnuex opened office in Paris and began negotiations with the French government. On April 27 provisional authorization was given in a letter to Chefneux from

Guyesse, the French minister for the colonies, which stated his agreement to the project (Gilmour 1906). The company meanwhile had raised 20,403,000 francs.

The company's next step was to start construction. Construction work began at Jibouti in October, 1897 and by the end of 1902 had reached 163 kilometres. The 20,403,000 francs contributed by share holders were consumed in the construction of 163 kilometres of which 54 kilometres were in Ethiopia. It had, however, become clear that the company had run into acute financial difficulties. Appeals for help from the French government met with refusal. Neither sufficient help was forthcoming from private French investors (Pankrust 1968: 313).

When Chefneux and Ilg lost the trust of French government and French capitalists, they were obliged to turn to the British for help. Their memorandum of April 11, 1898 disclosed that the railway was willing to issue 24,000 of new shares as against 10,000 held by French shareholders. This would have practically given the control of the undertaking to the British investors (Pankrust 1968, 313).

After receiving this news, the New African Company accordingly began purchasing railway shares, and two other British concerns, the Oceania Consolidated Company and the "New Egyptian Company," followed suit. The three companies soon afterwards agreed to provide a loan of 3,000,000 francs to enable the construction of the line up to kilometre 215.

When it was found that the trust had not only acquired a large holding in shares, but had also the right to construct the remaining stretch of line to Dire Dawa, a violent outcry was raised in Paris that French interests had been betrayed. Articles emphasizing the dangers of British capital appeared in the French press, together with appeals that the French government should

assist the company. Under such pressure the government authorized M. Bouhoure, the governor of the French Somali Protectorate, to sign a new agreement with Chefneux which was dated February 6, 1902. It was framed and signed without reference to the Ethiopian government (Keller 1918).

This remarkable document began by transferring from Ilg and Chefneux to the company as a corporate entity the French Government's original permission to establish a line through French territory.

The convention laid down that the company should be constituted according to French law, that all members of its board of directors should be French...The company was prohibited from increasing its capital, accepting loans...without the approval of the Minister for the colonies...The transfer of the line between Jibouti and Awash was also forbidden except with the approval of the Minister of the colonies and Foreign Affairs(Art.V)source: Pankhrust 1968).

The company was likewise forbidden from building any branch line between Jibouti and Awash without the consent of the two Ministers(Art.VI).The security of the railway on the Ethiopian side was placed under the French legation in Addis Ababa(Art.IX).

At the expiry of the 99-year concession, the French protectorate was to take over the line from Jibouti to Dire Dawa(Art.XIV). The French protectorate authorities were given the right to purchase the line from Jibouti to the river Awash by decree at any time after January 1,1920(XV). Failure of the company to fulfil its obligation, except for reasons of force majeure, was to render it liable to confiscation which would comprise the seizure in full right

and without formality of the line from Jibouti to the Awash(Art.XVI). As straightforward as it sounds this convention meticulously endeavoured to regulate the company(Pankrust1968:318) and presumed to legislate the annexation of Imperial Ethiopia, from Dawalle upto Awash.

Consequently, the Emperor declared that he regarded these clauses which contemplated the ultimate acquisition of the railway upto the Awash valley by the French Government as a direct infringement on his rights as an independent sovereign. ... Moreover, he informed the Big Powers his intention to take over the construction of the line himself(Rosseti 1910:168). The Emperor also refused the continuation of the line from Dire Dawa to Addis Ababa(Teklestadik 1984:111).

On the other hand, being obliged by the treaty of 1902, Art.V, to free themselves from their British commitments, Chefneux and Ilg, who were on the verge of bankruptcy and in need of ready cash, turned to the French insurance companies, La Generale Vie, and La Nationale vie, to whom they ceded the French insurance government's subvention, which would have brought in 25,000,000 francs over 50 years, in return for an immediate 11,300,000 francs.

By this desperate measure they repaid the 3,000,000 francs borrowed from the British and cancelled the latter's contract for further construction work. With the remaining funds the line was continued as far as Dire Dawa, where the first engine arrived on December 23, 1902. A 14-hour service was then instituted (Pankrust 1968, 322-323).

The company's financial performances between 1903 and 1904 were as follows:

TABLE II. Financial Performance of FERc:1903-1904

YEAR	REVENUE (FRANCS)	EXPENSES (FRANCS)	PROFITS (FRANCS)
1903	1,174,411.04	1,152,351.17	22,059.87
1904	1,286,932.35	1,235,469.73	51,462.62

Source: Voice of Chemine De Fer (Amharic Version 1979)

Bankruptcy

At the end of 1904 the company had spent the whole of the funds received from the insurance companies, and, as the above table shows, was getting meagre profits from the section of lines thus far completed. French capitalists moreover were reluctant to invest in the company because of Menelik's refusal to allow the extension of the line. In December 1904 the urgent insistence of Deleasse, the Foreign minister, induced the credit Lyonnais to make a loan to the company to enable it to pay interest on its shares and thus avoid immediate bankruptcy (Pankrust 1968:330)

After exhausting the French governments subsidy the company's directors decide to turn again to the British despite the prohibition in the 1902 convention.

In August, however, a new French minister for the colonies, Leygues, refused to allow a similar policy to be adopted to meet the September payment, but the company raised the necessary funds by obtaining an advance from the British trust in return for a mortgage on the Dire Dawa station and 40 kilometres of line on the Ethiopian side of the frontier.

A further advance from the trust to meet the December obligation was arranged on the basis of a mortgage on another 20 kilometres of line. The company thus remained solvent, but only by drifting more and more under British influence.

This aroused considerable resentment in France. The French Government declared on March 27 that such loans contrived the 1902 convention, and gave the company three months in which to regularise its position. June came, and the problem of meeting that month's obligation proved insuperable. The company therefore at last had no alternative but to declare itself bankrupt (Gilmour 1906).

At this level of the discussion it is of necessity to assess the forces that pushed both against and in the direction of the bankruptcy of the company.

The Imperial Ethiopia Government Railways Company was profit oriented service undertaking as determined for it in Article IX of the concession of 1894. According to this article the company had the right to levy 10% ad valorem charge on merchandise to finance construction and assure interest on capital subscribed. This levy was, however, to be reduced to 5% when net profits had reached 2,500,000 francs and totally withdrawn when they reached 3,000,000 francs. In return the company had agreed to share equally with the government all profits above 3,000,000 francs and to give the Emperor shares valued at 100,000 dollars.

On the other hand, a few days after the declaration of the bankruptcy, on April 11, 1905, in his speech to the envoys of Britain, France, Russia, and Italy summoned to an audience at the palace Emperor Menilik declared that he had always looked upon the construction of the

railway as a commercial enterprise in which any interested nation can share the title through investing its capital, and had never admitted that it should become a political instrument in foreign hands(Pankrust 1968:315). As this note indicates, the Emperor's attitude towards internationalizing and commercializing the railway company was more determined.

The then company's directors gave their support to Menelik's idea of internationalising and commercialising the railway, a policy which was closely imperative if they were to obtain Menelik's approval for the extension of the line.

The British financiers were also favourable to Menilik's intention, and argued that it was the only solution likely to bring an end to the discord between the Emperor and French government(Pankrust 1968:324).

Internationalisation also gained favour in France. This was largely due to the French diplomat and propagandist, Huges Le Roux, who, according to Gilmour(1910), ... made it his business to present the facts before several of the most important French Chamber of Commerce. As Gilmour adds," the businessmen ...in almost every instance ...petitioned the Government to accept the proposal for restoring the railway to a commercial footing."

However, the French Africa Association, which represented French colonial interests and ambitions, was, on the other hand, bitterly opposed to such proposals (Rosseti 1910). An important debate on the railway...took place in the French Senate on April 1, when Comte d'Aunay argued that the Entente Cordial should be evoked in favour of France interests in Ethiopia... "We had the monopoly of the railway," he exclaimed, "which gave us a precious instrument of penetration; one could say that the Empire of Menilik would become a colony for us from which we could gather the benefits without assuming any of the colonial

responsibility....We ask with anxiety whether other Powers will completely supplant us or more or less become dominant in Abyssinia." The Comte's speech was agreed with great applause(Pankrust,1968:170-1).

The three Great Powers, Britain, France and Italy, meanwhile decided to abandon their independent policies towards Ethiopia in favour of a concerted policy aimed at resolving their rivalries. ...They signed a Tripartite Convention on December 13, 1906.

The treaty partitioned Ethiopia into three spheres of influence. As this note indicates the forces that strived to keep the Imperial Ethiopian Railway Company moving on the commercial terrain were Emperor Menilik, the directors of the company, British financiers, and the French Chamber of Commerce. The restraining forces included the French Government and French Colonialists ; the British and Italian Governments which were the members of the Entente Cordial.

The underlying cause for the bankruptcy of the Imperial Ethiopian Railway Company was the Entente Cordial, in general, and French Government ,in Particular, with its policy of spheres of influence which kept up political rivalries in a commercial terrain.

3.2 FRANCO-ETHIOPIAN RAILWAY COMPANY(FERC)

After the company was declared bankrupt the French government arranged for the Banque de l'Indo-chine to come to the temporary assistance of the company, but on January 20, 1908, bankruptcy proceedings culminated in an order of liquidation, and a French envoy,

Klobakowsky, was despatched to Addis Ababa to negotiate with the Emperor to transfer the concession to a new company (Zervos 1936).

Menelik, confronted with the Tripartite Agreement, saw that he could not hope to internationalize the railway and the alternative of constructing it himself being unsatisfactory, he had to resign himself to a French line. He granted new concession on January 30, 1908, to his personal physician, Dr. Vitalien.

The new convention was signed between Vitalien and the French government on March 8, 1908 and constituted on March 24, 1908. This agreement corresponded to the concession of 1894. The company was constituted on commercial basis. It had profit motive and the shareholders had profit stake in it (Articles XII, XVII).

The new company took over work on the Dire Dawa-Addis Ababa stretch fairly rapidly. Completion of the railway, however, took several years. The first trains arrived at the capital in 1917 (Pankrust 1968:334). It had an influential board of directors (Pankrust 1968:333) and efficient management. Stanford, who first travelled on the railway in 1907, observed a couple of years later that he was "at once struck by the apparent increased efficiency of the line." (Zervos 1936:291). The extension of the railway led to a substantial increase in traffic. The number of passengers carried in 1915 increased three-fold by 1917, six-fold by 1920, and twelve-fold by 1927. Imports were considerably more buoyant. The 1910 figure had doubled by 1917, trebled by 1918, and quadrupled by 1925 (Pankrust 1968:335).

With the event of World War II the status of the company was affected. "The Ethiopian government fell under the Italian rule between 1936 and 1941. The French government fell

under the rule of Hitler Germany between 1941 and 1945. The FERC was nominally operating in the absence of its lawful proprietors, especially when Germany was ruling over France" (Gulelat 1973, 15).

Mr. Bayardelle, Governor of Jibouti, occupied the Afambo region of the Imperial Ethiopian in 1943 with the pretext that the territory's security necessitated the occupation. However, the ultimate purpose of the move was to establish a bargaining term with Ethiopia so as to reinstate the prewar rights to FERC.

The French government in 1954 initiated a proposal to draft a new treaty that would iron out all the remaining difficulties between Ethiopia and France. This proposal was agreed upon by Emperor Haile Selasse(Gulelat 1973:16).

This treaty, unlike that of 1908 , based the company on the non-commercial nature. Ambassador Ahadu Sabure(1971) in his letter to H.I.M. Haile Sellasse I said, "The company lack clear goal to act like a profit seeking entity"(Source: Gulelat 1973: appendix B). Besides, unlike that of 1908 Treaty, it was based on partisan politics. According to Article 4 of the Annex to the Treaty of 1959, the administrative headquarters and the residence of the general manager were located at Addis Abeba. Jibouti was designated as the centre for the Technical Directorate and the residence of the technical manager, who was a French national. This was done[not in the interest of business management but] to maintain their prestige and status. And such arrangements had dual effects on the performance of the Company(Gulelat 1973:31).

- the technical decisions were not given on the spot because the Technical Manager was usually in Jibouti.
- the close supervision on technical performance by the same person was lacking.

This situation had imposed enormous costs and was one of the basic problems for the poor service of customers and performance of the company (Gulelat 1973, 49-50). As a result, the clients shifted to port of Assab for truck services(Company's Trade Union Manifesto 1968;Gulealt 1973:35). Consequently the FERC run into acute financial difficulties and appealed to the two governments for loan according to Article VII of the treaty. The two governments accordingly extended birr 14,000,000(equivalent to \$7,000,000 on the then existing exchange rate) to the company in the year 1968-1978(Ye Babur Dimste 1979).

Concerned with poor performance of the company, the French Government initiated investigation for causes. The Ethiopian Government, responding in affirmative, established ad hoc committee of experts in 1973 for the purpose.

The committee in its investigation report attributed the basic cause of the financial difficulties of the company to the escalation of salary and wage expenditure to 60% of the income. To solve this and other problems of the company, the committee recommended the reorganization of the company and its staffing with competent managers(Gulelat 1973:Annex VI). As the company was transformed from commercial to non-commercial organization as the result of 1959 treaty, there was a parallel decline of management efficiency. The decline in the performance of the company is the reflection of that inefficiency in management.

3.3 ETHIO-JIBOUTI RAILWAY COMPANY(EJRC): 1975-1995

With the mass movement of 1974, the absolute monarchy of Ethiopia was replaced by the military junta or Dergue on September 12, 1975 that declared itself as "Provisional Military Government of Socialist Ethiopia." The military Marxist regime through nationalization brought all industrial and transportation enterprises under the control of the government. By this act the title of FERC's section of Ethiopia was taken by the government of Ethiopia. On the other hand, Jibouti got its independence from France in June 1977. As a result Jibouti also took a title to the section of the Company in its territory.

The political changes and its concomitant, i.e., the change of the title of the FERC, necessitated the signing of a new treaty in 1981 by the two countries. This treaty is designated as the General Agreement on Transportation and Djibouti-Ethiopia Treaty establishing the new Addis Ababa-Djibouti Railway Corporation. With this treaty the name of the company changed from FERC to EJRC.

This treaty is based on that of 1959. As a result the EJRC inherited the non profit-making character of the FERC of the Emperor Haile sellasse's era. As a result it speeded up decline in productivity as the following table shows, by EJRCs own measurements of comparison (Sofrerail Consult 1994).

	1974	1994
Traffic (tons per annum)	400,000	280,000
Manpower	2100	2600

As it was for FERC, there is still alignment of forces for and against commercialization of the EJRC. The forces that are struggling for the commercialization of the company include the Trade Union of the Company and the European Economic Community.

The Trade Union has asked the Governments of Ethiopia and Jibouti to take initiative and commitment to change the company to profit-making enterprise(Addis Zement, Amharic Daily, Tir 4, 1989 E.C).

The European Economic Community has promised the governments substantial aid and loan if they partly commercialize the company(Daniel/ABD Consult 1994 Report).

Despite these pressures the two governments had done little to commercialize or privatize at least part of the company. The governments of Ethiopia and Jibouti are still the restraining forces. This was because of the fact that the hitherto existing governments of both Ethiopia and Jibouti, regardless of their political ideology have been using the company for their political interest.

Anyways the company is incurring a loss of birr 20,000 per day (General Manager, Press release, Addis Zemen, Amharic Daily, Megabit 27th, 1989). Therefore, ineffective management, i.e., a management that cannot achieve the break-even objective established by the shareholders of the company, is still inherent in the company. It is evident that this was conditioned by the non-profit value of the company.

REFERENCES

- Chemin De Fer, Franco-Ethiopien, Campagne Du.1979. Ye Babur Dimtsi(the Voice of Rail). August.
- Daniel Consult and ABD Consult. 1995. EJRC: An Assessment of Institutional and Managerial Framework Final Report. (Unpublished)
- General Manager. 1989(E.C). Press Release. Addis Zemen(Amharic Daily). Megabit 27. Addis Ababa.
- Gilmour, T.L. 1906. Abysinia, the Ethiopian Railway and the Powers. London: Mcmillan publishers
- Gulelat G/mariam. 1973. A Survey of the History and Problems of the Franco-Ethiopian Railways, S.C.(Unpublished)
- Keller, C. 1918. Alfred Ilg. (NP): Frauenfeld.
- Pankrust, Richard. 1962. Economic History of Ethiopia. Addis Ababa: Addis Ababa University Press.
- Rosseti, C. 1910. Storia Diplomatica Dell' Etiopia. Torino
- Tekletsadik Mekuria. 1984. Menelik Na Ye Ethiopia Andinet (Emperor Menilik and the Unity of Ethiopia). Addis Ababa: Kuraz Publishing Agency.
- Zervos, A. 1936. L'empire d'Ethiopie. Alexandria

CHAPTER FOUR

LITERATURE REVIEW

4.0 INTRODUCTION

To determine information requirements and system design an understanding of the following issues is necessary.

- . Organisational functions and structure;
- . Managerial process and style;
- . Organizational culture and power;
- . Organizational Information Policy;
- . Organizational Environment;

This is because of the fact that the general information needs of managers follow a pattern based on the nature of the managerial activities at their level and managerial process"(Gorry & Morton,1986;Scott,1986:55). Moreover, the analysis of managerial activities help effective system analysis and design(Davis & Olson,1981:16). The understanding of organization's environment assists to determine what information must be provided by its information system to environment and received by it from environment, the preferred format of information and how the information systems should be organized (Scott, 1986:5). These show that the subject-scope of the study is complex and multifaceted. An integrated HURMIS as a TOHRIS, i.e., a federation of three major subsystems has to be thought of from the points-of-view of its (1) internal interaction (2) reciprocity with environment and (3) company settings. These make necessary to acquire the knowledge about information system in general; and with that background, to study the HURMIS in EJRC. The method of literature survey was the only effective means to that end.

4.1 MIS BASED ON ORGANISATIONAL FUNCTION

The structure of an information system can be described in terms of organizational functions. The typical functions include production (operation for service organization), marketing, finance, logistics, personnel, and top management. "Each of these functions has unique information needs and each requires information system support designed for it. Another approach to understanding the structure of an information system is in terms of its organizational structure which is the arrangement of the subsystem which perform various activities(Davis & Olson(1974),1985:41,16).

4.2 MIS BASED ON MANAGERIAL PROCESS AND STYLE

"Process analysis is another approach to the synthesis of information requirements. The idea underlying this approach is that business process are the basis for information support. Process remains relatively constant overtime, and the requirements derived from the process will reflect the nontransient needs of the organization[Davis & Olson,(1974), 1985:485]

"Most MIS groups become involved in system development and implementation without a prior analysis of the variety of managerial activities. This has prevented them from developing a sufficiently broad definition of their purpose and has resulted in developing inefficient system(Gorry & Morton,1975). Explicit, to develop an efficient system the starting point should be managerial process. The analysis of managerial process involves decision and activities of management.

4.2.1 Managerial Activities

Managerial activities according to (Davis & Olson (1974), 1982:6; Caputo, 1991:16-20) are classified according to their levels in the hierarchy.

The hierarchies are:

- . Top management
- . Middle management
- . Lower management

The corresponding activities are:

- . Strategic planning.
- . Management control.
- . Operation control.

The management information system has been described as a pyramid structure in which the bottom layer consists of information resources in support of day-to-day operations and control; the second level consists of information resources to aid in tactical planning and decision making for management control; and the top level consists of information resources to support strategic planning and policy making by higher level of management.

4.2.1.1 Strategic Planning

The strategic planning activities of top management (Scott, 1986:42) include:

- strategic and long term planning
- policy formulation and evaluation
- crisis management
- leadership.

Strategic and long term planning

Planning activities are intended to establish long term goals and the corresponding strategies that will enable a company to manoeuvre itself toward a desired future position.

The organization's first step is to assess its present status; this step should include an evaluation of the resources available to the organization and of the environment as it affects the organization. The primary source of information about the organization's present status is its own operations. One important source is summarized transactions information including Financial statements.

Information about the status of the organization's environment may be received informally by its managers or may be provided by a formal information system that is organized together this information. The organization's customers and vendors can also provide important information (Scott, 1986:41-42; Davis and Olson, 1974, 1985:6-7).

Formal information system is manifested by documents and other records, usually indicating compliance with prespecified rules and procedures. The informal information system may process information that is vital to organizational functioning but without formal records of that process (Davis & Olson (1974), 1985:50). "Information from informal information network is an important source of information for managers of every size and should be recognized as such. Informal information system may run the gamut from the "grapevine" to informal, chatty lunch meetings that include discussions of particular situations or problems and other publications distributed. (Scott, 1986:51).

Therefore, for strategic and long-range planning the required information systems, at large, are:

- informal information system to elicit opinion.
- formal information system that includes document survey to consolidate secondary data and research system to generate primary data.
- transaction processing system to produce transaction data.

Human resource planning is part of strategic planning because it is conducted to ensure that the organization has the right kinds and the right numbers of people at the right places at the right time to achieve its long-range and short-term objectives.

HRP needs information about the quantity and quality of the work force that is needed to achieve organizational goals. This means forecasting the supply and demand of the required work force. To forecast human resources needs, the following information will be required:

- job descriptions and specifications for the strategic plan
- number of positions for each job title
- internal supply
- external supply.

There are conditions (Summers, 1981:527-528) that induce HRP. They are:

- an imbalance between what an organization wants to accomplish and what employees are capable of doing.
- compensation cost may be out of line with other expenses.
- a low productivity rate.
- the work force may be out of balance because of over supply in certain job groupings and a shortage in others.

- serious unrest which shows up in low morale or high turn over, or absenteeism.

These shows the need for attitude survey, and personnel data processing system to collect information for HRP. " The ability to assemble and integrate informal information is also valuable [Senn(1972,1984), 1987:84]

Human resource policy formulation and evaluation

The Management Dictionary defines human resources policy as " Statement of the goals or aims and objectives which define the intentions of the organization with respect to HRM..." It thus provides maps to be followed in HRM. " Human resource policy should be formulated, communicated, administered and monitored(Yoder,1956:64).

Human Resource Policy Formulation(HRPF)

To formulate policy, it requires information. "A data-based approach to managing policies ...prevent problems from occurring(Summers,1981:33).

The sources of data (Summers,1981: 66-67) are:

- . Goal of the organization
- . Needs of the employees.
- . Public policy.
- . Up-to-date philosophy and findings of behavioral sciences.

It is explicit that attitude survey and review into company planning, public policy documents, and behavioral sciences monographs are necessary. The attitude survey and review constitute part of Human Resource Research(HRR) system.

Policy communication

The definition and broad, uniform understanding of policy are essential to consistent action throughout a company. In the absence of uniform understanding, individual divisions and departments are likely to develop their own interpretation. Chaotic programmes are a frequent expression of this condition(Yoder,1956:67). Those responsible for policy administration should get the statement together with instructions oh how they are to apply the principles contained in the policies and procedures(Summers,1981:71). To this end, specific means must be provided for informing all levels of management as well as rank-and-file employees, of the detailed labour policy of an organization(Yoder,1956:75). The means are policy manuals and employee handbooks.

Policy Review and Evaluation

The communicated policies as suggested by experts should be monitored for proper compliance. Personnel programmes may not work as intended. Practice may vary from what policy prescribes. Knowledge is far from complete, so that what actually happens may be quite different from what was contemplated or sought. As emphasized by (Yoder, 1956: 15-16), constant audit of each employee relation policy and practice are essential.

The primary principle in the audit is that it checks on the degree to which results coincide with stated intentions.

There are tell tale signs (Yoder, 1956:73; Beverley, 1968; Summers, 1981: 69) which help to identify the time when personnel policies should be audited. These indicators include:

- Recurrence of reports: Different auditors and consultants engaged by the organization ask the same question over and over.
- Company unrest: Employees complaint absenteeism,, quit, etc.

Hence, policy audit, document survey and employees attitude survey to generate information for policy modification.

The attitude survey for morale measurement are generally through questionnaires. Many managers however use intuitive methods to get a feel of morale but this method is not only highly subjective but also impractical for large and complex organizations. Some companies attempt to infer morale from various employees records, such as records of grievances, absenteeism, turnover, accidents rates, etc. Attempts to combine these indicators into an index have not met with success. Moreover, this approach is related to measurement of morale during some past period, and nothing much can be done about it at the time when it is uncovered. It precludes the preventive approach (Agarwal, 1982:317). So neither manual record-keeping nor computerized personnel data contribute to morale measurement. It is the use of attitude survey technique that is helpful in this regard.

Crisis Management

Another general management activity is "crisis management" of what are called critical problems. Top-management and middle-level managers devote a great deal of their time to these critical problems. Such problems as a precipitous and serious decline in worker productivity, or customers demand are typical examples of critical problems (Scott, 1986:44).

The critical problem requires the specification of critical success factors. Critical success factors are the key tasks to be done exceedingly well for a company to be successful. Information pertinent to critical factors may combine both hard and soft information and rarely originates from accounting financial report to stockholders with performance information[Senn(1982),1987:614]. According to the dictionary meaning hard information means factual evidence. Soft refers to opinion, gossip, etc. It is evident that to get this information it requires the use of formal and informal information systems. The critical success factors therefore demonstrate the importance of assembling and co-ordinating data from throughout the firm while at the same time recognizing the subjective assessments of events, trends, and opportunities facing an organization[Senn(1972, 1982),1987:614].

Information requirements for top management activities and decision-making are more changeable and more difficult to define(Davis & Olson(1974),1985:4). Critical factors identification moreover assist managers in defining their information needs and help to prioritize the system design efforts(Scott,1986:83).

Leadership Style

Leadership is the art of influencing the others to direct their will, abilities efforts to the achievement of leader's goals-policies. It is the manager in his leadership role who has to stimulate and inspire the employees to contribute willingly, co-operatively and zealously to the optimum achievement of his goals. In his leadership role, his main task is to integrate the individuals and groups (both formal and informal) with the organization so as to achieve their willing and zealous co-operation. No co-operative effort is possible without co-ordination among those engaged in it, and between them and their environments. Communication is a central tool for achieving co-ordination.

It aids co-ordination by transmitting objectives, policies, procedures, instructions, rules and orders throughout the organization. Secondly, communication provides feedback about the co-ordination actually taking place at various levels. Finally it acts as an intelligence gathering mechanism, searching for information about problems of co-ordination, and locating areas where it needs to be strengthened (Agarwal, 1982:224, 241).

To this end a manager should be able to communicate effectively. Effective communication implies that the receiver should not only understand the message sent by the communicator but also accept and comply with it. This refers to the willingness of employers subordinates to accept a leader's communication and respond to it to the extent that they perceive him as satisfying their needs.

It, therefore, becomes important for a manager to gain insight into the organizational problem and the needs of his employees and norms of informal group that influence the value of employees. These calls for attitude survey and policy audit (Agarwal, 1982:229, 317).

The employees and the firm needs, are interdependent. Effective leader should integrate the employees needs with organizational goals (Blake & Mouton, 1964:passim). His ability to integrate the two needs depends on the availability of relevant, accurate and timely information pertinent to employee needs and company needs. This warrants the development of integrated information system. "Each employee has needs, if congruent with the goals and objectives of the organization, should lead to high levels of performance and job satisfaction. When individual needs and organizational goals are not congruent poor performance, resistance, and other dysfunctional consequences can result. The introduction of an

integrated information system can alter the relationship between individual needs and organization objectives (Davis & Olson, 1982:354).

However, the structure of the information system is influenced by the manager's style of leadership (Scott, 1986:15). There are various approaches to leadership that have been developed by researchers. According to Blake & Mouton (1984) there are five styles of leadership.

- i. Impoverishing (laissez-fair) management: satisfies neither organization nor employees needs. They concern themselves with day-to-day activities and ignore strategic ones.
- ii. Production-oriented leader: shows maximum concern for production and minimum concern for employees. He is authoritarian.
- iii. Country club manager: maximum concern for people and little concern for production.
- iv. Mid-of-the-road leader: emphasizes both production and employees need satisfaction but not maximally.
- v. Team managers: place maximum emphasis on production as well as people.

The last three encourage two-ways communication and share information with subordinates. they solicit suggestions and consult with their subordinates about decisions affecting them [Davis & Olson (1974), 1985: 352]

The autocratic leaders however do not welcome suggestions from subordinates, give definite instructions... (Agarwal, 1982:226). They do not share information with subordinates. Because "...they are organized in a manner that centralizes information in the hands of a few people..."

Consequently, there are numerous reactions to the desire of employees to participate fully...(Summers,1981:33).

The impoverished management makes no strategic decisions because of its neglect. " If there were no current or future choices of decisions, information would be unnecessary. The scope of formal information in an organization is limited, among other things, by the value of information to the user; and the capability of managers to accept and act on the information (Davis & Olson (1974), 1985:201,22). So, as there is no need for strategic decision, there is no need for strategic information. This hampers the normal functioning of formal information system.

Tannenbaum and Schmidt (1964) recognize that effectiveness of any one of these styles depends on the situation and personality of the manager.

The leader's personality refers to his own value system. His behaviour is influenced by his belief about the extent to which subordinates should be given a share in making decisions which affect them; and the relative importance of organizational efficiency, personal growth of subordinates, and company profits. Another personality variable that affects a manager's choice of leadership behaviour is his inclination to be directive, or act as a team leader. It will also depend on his tolerance for ambiguity, because involvement of subordinates in decision making reduces predictability of the outcome.

The forces in the situation that affect the choice of leadership style are: (i) characteristics of the organization such as its values and traditions, size of the working unit, their geographical locations, and the degree of inter- and intra-organizational interactions required to attain company goals; (ii) ability of the group members to work together as a unit; (iii) kind of

knowledge and competence required to handle the problem, and whether the group possesses it; (iv) pressure of time; and (v) long-term strategy.

The above facts indicate that a leader's style influence and be influenced by the value and tradition of an organization.

The style of leadership determines the degree of information utilization and the structure of information system (Scott, 1986:15)

4.2.1.2 Managerial Control

Management controls refers to those process by which managers assure resources are obtained and used effectively and efficiently to accomplish organizational objectives (Caputo, 1991:18). It ensures that activities remain consistent with the goals of the organization.

Some of the information required for management control must come from outside the organization; for example, overall productivity of operations should be compared with competitors' productivity or with industry averages. If formal information systems are used for gathering this external information, these must be especially designed for this purpose. Even some of the information needed from inside the organization must be provided by specialized information systems or by special reports that process routinely acquired data in a nonroutine manner. For example, monitoring the effectiveness of employee training programs is an important ingredient of management control, but the transactions processing systems gather little data that sheds light on this activity.

4.2.1.3 Operation Control

Operational control applies to those processes of assuring specific tasks are carried out effectively and efficiently (Caputo, 1991:18).

Operations control is exercised almost entirely by managers who directly supervise the operations; they use a combination of direct observation and detailed reports of operations. The reports consist primarily of transactions listings and summaries of transactions provided by the formal information system.

4.2.2 Managerial Decision

The decision pertinent to top management activities is of a nonprogrammed nature which has no preestablished decision rules or procedures whence the need for strategic decision is unpredictable. Nonprogrammed decision may range from one-time decisions relating to crisis to decisions relating to recurring problems where conditions change so much that decision rules cannot be formulated [Davis & Olson(1974),1985:34; Scott,1986:47].

It is apparent that the unstructured nature and unpredictable occurrence of problems at the higher levels of an organization make it difficult to construct computer-based information systems(CIS) that routinely provide information useful for most top management decision-making(Scott,1986:48). "...many important decisions are based on information received through informal channels... What is expected from the CIS for unstructured decision is access to internal data and support for ad hoc retrieval requests"[Davis & Olson(1974),1985:52,34]

4.3 ORGANIZATIONAL CULTURE AND POWER

4.3.1 Organizational Culture

What Tannenbaum and Schmidt (1964) identified in the preceding discussion as forces in the situation is organizational culture. They considered it in relation to management style. Here it will be considered in relation to information system.

"The information system designer who looks only at the organization chart will miss factors that may be vital to understanding of the organization and to design of an appropriate information system. Two areas of significance are organizational culture and organizational power (Davis & Olson (1974), 1985:343). Organization has a culture that is composed of values norms, and beliefs about the organization (Davis & Olson (1974), 1985:458; Agarwal, 1982:234). According to their sense in the dictionary and usage here, value refers to a principle intrinsically desirable; norm is a pattern or trait taken to be typical in the behaviour of a social group; beliefs may suggest mental acceptance without directly implying certainty on the part of the believer.

As Davis & Olson (1985) observed, "The culture may reflect the dominant ideas of the founders, or subsequent leaders. An example was the low-cost, single style philosophy of Henry Ford that dominated Ford Company until a change was forced by very aggressive competition. ...Some extremes of perception of culture for an organization are:

High technology	Low Technology
High service	Low service."

Goals, objectives, and strategy for information systems should fit with the culture in order to avoid high resistance and high risk of failure.

4.3.2 Organizational Power

Power in an organization refers to the ability to obtain and utilize human and material resources to accomplish objectives. An effective information system requires organizational resources. These must be obtained in competition. Personal power is critical variable. Personal power in an organization, for the most part, is derived from a person's position in the organization (job definition and activities) and connections to other powerful people in the organization (Davis & Olson (1974), 1985:344). So, to identify the possibility of obtaining the required resources for the proposed system, the analysis of personal power of members of personnel directorate is necessary.

4.4 COMPANY INFORMATION POLICY

4.4.1 Formulation

A policy on information ... can be formulated at the institutional level. Information policy is a set of principles which guide the design of a strategy and programme for the development and use of information resources, service and system (Montviloff, 1990:7). Key issues usually covers the following main issues in the field of information:

- the development of information resources and services including the generation and collection of information, informative manpower, technology and facilities...
- the provision of access to information and its effective dissemination.
- the promotion of the effective use of information including training users to seek and apply information and raising their perception as to the value of information.
- the development and co-ordination of [organizational] information activities including the operation of information and a decision support system.

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At large, information policy should clearly establish the purposes, goals, and intentions in the generation, communication (dissemination), and promotion of use of information.

4.4.2 Policy On Employment Communication

The ultimate objective of PEC is to facilitate the employees need to give and receive information. As Yoder observed (1956), "Adequate communication within an organization is not automatic. It may require detailed attention and planning. Neither is the development of formal organization an assurance of communication. Organization channels may be ineffective as communication channels. The chain of command may have many "bad connections" so far as communication is concerned

Policy should not only recognize that communication requires special attention but should consider specifically what is to be communicated and how (Yoder, 1956:776; Agarwal, 1982:207).

One communication policy that might well have universal acceptance is the determination to undertake frequent checks on the effectiveness of communications. Good communication cannot be taken for granted. Policy should, without being restrictive, specify in some detail the principal areas or subjects for communication: listening and talking, or receiving and giving (Yoder, 1956:777).

The communication policy should refer not only to formal, but also to informal communication: how to search, handle and by what means? (See, Wolek and Griffith, 1974).

4.4.3 Policy On Personnel Research(Ppr)

The aim of PRP is to generate new information and consolidate the existing one with anticipation of its use in decision-making. With increasing management sensitivity to morale as an intervening variable in organizational effectiveness, more and more companies are resorting to the use of morale measurement (Agarwal, 1982:317).

For the firm or agency that is undertaking such policy, several questions must be answered. For one, decision must be made as to whether an outside consulting agency is to be charged with responsibility for conducting the survey and analyzing the results... The most important question is the general objective of the survey (Yoder, 1956:761-762).

The other field of personnel research is auditing HRM. That is, reviewing policies, programmes and practices. "one important policy question that must be answered with respect to auditing concerns the range or scope of such a check.... Another important question of policy concerns the timing of auditing HRM... Another matter of policy involves the question as to who shall conduct the audit (Yoder, 1956:814-819).

4.4.4 Policy on Personnel Information Service (Ppis)

PISP is practice of information service in a business organization with the aims of making records, reports, and behavioral sciences monographs readily available and accessible to personnel staff and of creating an organizational environment appreciative of the value of information. The service can be practised by personnel statistics, and library. The policy

then must state the need for establishing these service centres; and then conceptual structure; the complementary relation between them and the co-ordinating mechanism.

4.5 ORGANIZATION'S ENVIRONMENT

All systems operate in an environment; be it micro or macro level. HURMIS is by its very nature an open and adaptive system. It should exchange information with its environment. It needs the findings of behavioral sciences as energizing input- data or information that may be acted on by the system (Senn, 1987:63).

This is possible when a company has a personnel research system and interact with similar systems in universities or professional associations that form its environment. This interaction gives it the best possible performance.

CONCLUSION

For detemining management information requirements and system design understanding of organizational function, managerial process and management style; organizational culture and power, and organizational environment are necessary.

The managerial process involve managerial activities and their corresponding types of decision-making. This relationship is shown as follows

TABLE III: The Relation of Management Activity and Decision-making to Managerial level

Managerial level	Managerial activity	Types of Decision-making
Top Management	Strategic planning	unstructured/ nonprogrammable
Middle Management	Management control	semistructured/ semiprogrammable
Lower Management	Operational control	Structured/ programmable

The corresponding information systems are depicted in the following table

TABLE III: The Relationship of Information Requirements and Information Systems to Managerial Level

Management level	Information Requirements	Information System
Top Management	External Data Internal Data	Informal information system Transaction information systems
Middle Management	- Planned performance - Variance - Reasons for variance possible - Analysis of decision	- Planning and budgeting models - Variance reporting programme - Personnel audit (manual) - Problem analysis and decision models Computerized/manual - Transaction processing - Report processing - Inquiring processing
Operational control	Internal data generated from transaction	

4.6 FRAMEWORK

The understanding arrived at in the preceding discussion is synthesised into a total information requirements and a "TOHRIS" structure. TOHRIS is a conceptual framework. As a concept it emphasises the generation, communication, and promotion of information use. For the purpose it consists of " Information Generation System(INGS)," "Information Communication System(ICS)," " Information Service System(ISS). The approach followed information stage model.

Furthermore, a "TOHRIS" orientation means information is a resource that be utilized so as to improve decision making and achieve improved labour productivity. Given this view, the framework pinpoint the need to manage human resource information by a responsible executive for HURMIS. Moreover, the concept of "TOHRIS" assumes the need for policies to generate programmes and practices that make effective the functions of HURMIS. It also assumes that interaction of system.

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HURMIS" is envisioned as an integrated structure of personnel research personnel communication, and personnel information service" that forms a base to describe the existing information system in EJRC and suggest an orientation toward which its design moves.

Without a framework to guide a system planner, the system tends to react to the greatest crisis. As a result, system activities too often move from crisis to crisis, following no clear path(Gorry & Morton,1975). It is to avoid such a pitfall that the conceptual framework is devised.

REFERENCES

- Agarwal, R.D. 1989. Organization and Management, New Delhi: Tata Publishers
- Blake, Rober and June S. Mouton. 1964. The Managerial grid. Houston: Guld Publishing House.
- Caputo, Richard K. 1988. Management and information systems in human services: Implications for the distribution of authority and decision making. New York: The Haworth Press, Inc.
- Davis, Gordon B. and Margreth H Oslon. 1985. Management Information System: Conceptual Foundation, Structure, and Development 2nd ed. New York: McGraw-Hill Book Company.
- Gorry, G. Anthony and Michael S. Scott. 1986. A framework for management information systems. In Readings in management. 7th ed. Edited by, Max D. Richards. Cincinnati, Ohio: South-Western Publishing CO.
- Montviloff, Victor. 1990. National information policies - a handbook on the formulation, approval, implementation and operation of a national policy on information. Paris: UNESCO.
- Scott, George M. 1986. Principles of management information systems. New York: McGraw-Hill Book Company.
- Senn, James A. 1987. Information systems in management. 3rd ed. Belmont, CA: Wadsworth Publishing Company.
- Summers, Donald B. 1981. Personnel Management in Banking. New York: McGraw-Hill Book Company.

Wolek, Francis W. and Belder C. Griffith. 1974. Policy and Informal Communications in Applied Science and Technology. Science Studies, (4):113-122.

Yoder, Dale .1962. Personnel Management and Industrial Relation. New York: Macmillan & Co.

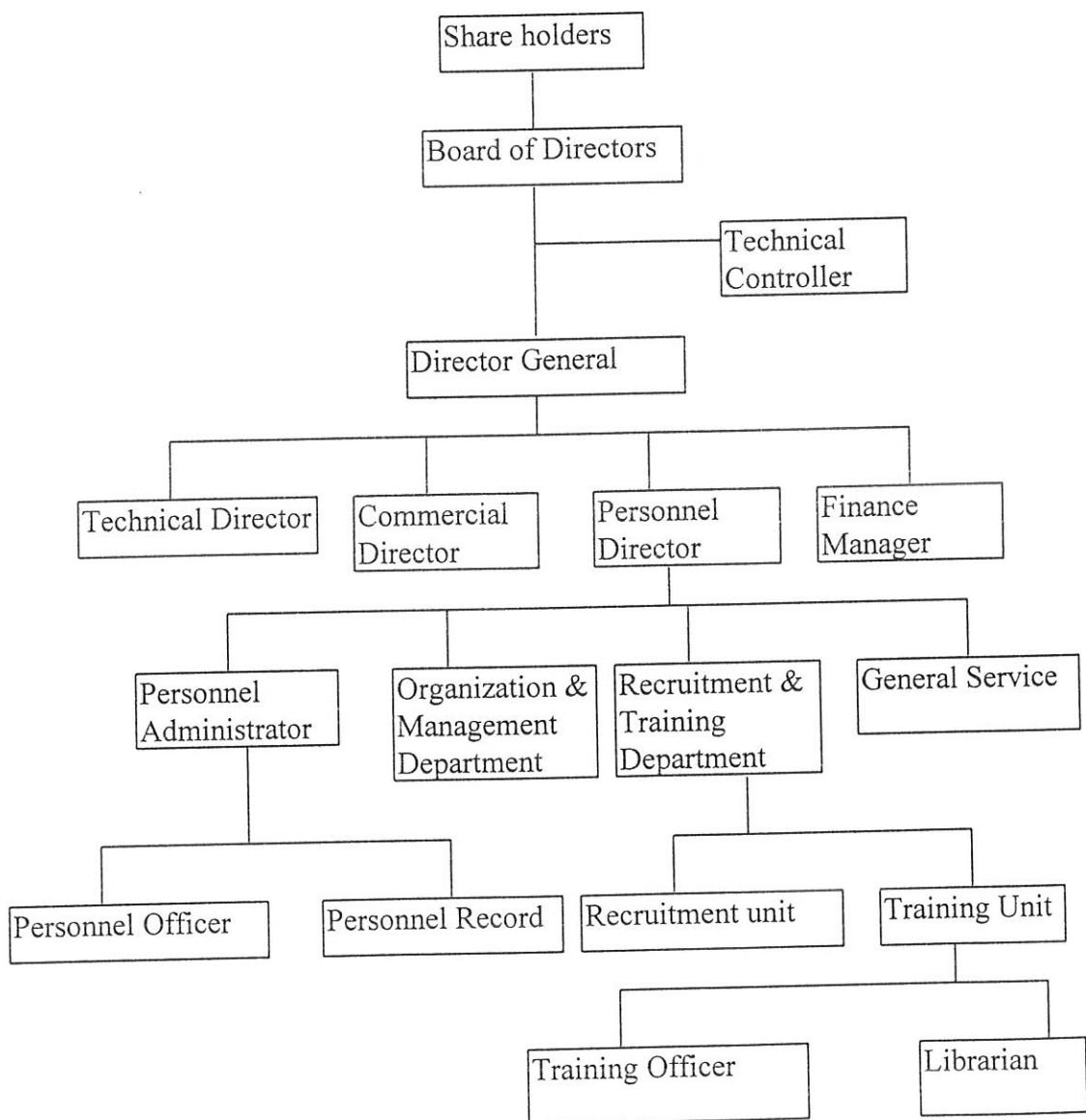
CHAPTER FIVE

INFORMATION NEEDED AND USE WITHIN THE COMPANY

5.0 THE COMPANY STRUCTURE: 1970 - 1995

The EJRC is organized on the functional base. That is taking basic functions as a criterion for organizing the structure of the company as depicted in the following chart.

Figure 1. Organizational chart of EJRC



Source: Soferrail Report.1986.

SHAREHOLDERS

- They are head of states of the two countries;
- They are supreme controllers of the company (Art. 2 Para. 1 of Annex II);
- Assign members of the Board of Directors (Art. 4 Para. 1 of the Treaty);
- Give final resolution on the decision of the Board of Directors (Art. 6 Para 10 of Annex II).

BOARD OF DIRECTORS

- The membership of the board is equally shared between the two nations;
- The chairmanship of the board rotates between the two nations annually;
- The board of directors has the following (Art. 5) duties and responsibilities
 - . decide on long term and short term investment of the company.
 - . gives directives on the handling of financial transaction.
 - . determine the depreciation rate of fixed assets.
 - . purchase immovable property for the company.
 - . establish transportation tariffs that enable the company to perform its function at break even point.
 - . decide on the administrative practices of the company basing on the reports of the director general and technical controllers.
 - . decide on the organizational structure and policies.

5.1 THE COMPANY VALUE

The value of a company has two aspects: non profit value and political value which are deducted from its mission.

NONPROFIT VALUE

It is in Article 4 of the treaty that the purpose of the company is stated:

"To render satisfactory service to passengers
and traffics between the two countries and
within each country by balancing its income
and expenditure(or at break-even level).

(Paragraph 1;Translation mine)

To achieve this aim, the following strategy is laid down.

"To perform at break-even level, the transportation
tariff shall be determined by the two countries at
the company's administrative council."

(paragraph 4;translation mine)

To control the influence of the two countries on the tariff manipulation the following rule is
established.

"While the company is performing within its budget
limit, if either of the two countries establishes
a tariff that makes the attainment of the break-even
level difficult, that country is liable to subsidize
the company for the loss incurred."

(Art. 4 para. 6 of the treaty; translation mine)

Moreover, the two governments, though shareholders, have no profit stake on the company, in case the company obtained profit at the end of the year. This is implied in the following Article from Annex II.

Article 16. " The profit that the company obtains at the end of the year shall be deposited as reserve and used for the following purposes:

- increasing working capital;
- for purchase of materials ;
- for investment to expand the company;

On the other hand, the management is not accountable for the decline of the performance below break-even level. ".....If the company incur loss, they[i.e, the two governments] will seek ways to cover the loss."(Article 15: Annex II)

The aim of serving customers at a break-even point; and even doing below the break-even level at government subsidy; the shareholders lack of stake in the profit; and the non accountability of the managers for performing below break-even point are indicative that the company is a binational public enterprise with non profit objective.

Political Value

As stated in the introductory paragraph of the Treaty, it was signed after the two governments had considered the historical fraternity between the two nations and consented to forbear

encroaching the sovereignty of each other. It is evident that the company was envisioned as a bulwark for the sovereignty and peaceful co-existence of the two nations.

Moreover, Its structure is designed on political basis. Article 2, paragraph 2 of the Treaty; and Article 4, paragraph 1 of Annex II reflect the concerns of the participating governments with ensuring equal national representation in the Board of Directors.

In addition, the Treaty mandated an additional layer of top managers to be divided equally between the two countries and explicitly specified locations of the Technical and Commercial Managers to be in Jibouti and the others in Addis Ababa; organizational units- Technical and Commercial Directorates , and the Personnel and Financial Directorates in Jibouti and Addis Ababa respectively(Art.2, paragraph 3 of the Treaty; Article 9, paragraph 2 of the Annex II). These prove the nature of the company is, at large, political than commercial.

For the company employed as a political means, its organizational structure resulting from negotiation among sovereign nations might depart somewhat from a model designed by a management experts (Soferrail Consult Report 1986). It is worth noting that this had led the company to incur huge communication costs. For example, in 1994/95 the company had paid Birr 828,079.89 for telecommunications between Jibouti and Addis Ababa(see, appendix...). This cost was brought about by the Technical and Commercial Managers, and the Jibouti regional manager communicating with the General Manager at Addis Ababa on telephone. A substantial cost was incurred by the former two top level officials. Had they been positioned in Addis Ababa at the headquarters, the cost associated with their location would have been avoided. It is unquestionable that the shareholders are counting not on economizing the

resource but on national status and prestige. Political aspiration was therefore seen to have got precedence over the economic interest of the company.

5.2 MANAGEMENT PROCESSES IN EJRC

5.2.1 Responsibilities of Top Executive

The Director General has the overall responsibility and authority to manage the company in an efficient manner to meet the goals set forth by the Treaty.

According to Art. 9 of the Annex II, the Director General is responsible for the following activities:

- To carry out decisions made by the Board of Directors.
- To prepare the budget of the Railway and both its short and long-term programs.
- To monitor and control the assets of the Company to ensure that they are effectively used.
- To submit an "optimum" organization chart to the Board of Directors for approval each year, together with a manning table.
- To present to the Board recommendation for policies on recruitment, promotion, allowances, base salaries and training of employees.
- To enforce the regulations on traffic, passenger, and freight tariffs.
- To ensure that EJRC operates within its approved budget. The General Manager as director of the budget may delegate his signature to other managers, but only upon approval by the Board of Directors

- In accord with the General Directives of the Board, insure that recruits are only persons of Ethiopian or Jibouti nationality; promote, transfer and terminate them; facilitate the training of the employees to promote their productivity.

The Personnel Director is responsible for the following duties as stated in the job description of the position.

- To initiate revision of the policies and programme.
- To prepare the annual plan of human resource and establish its budget.
- Establish the budget of the Directorate without the approval of the Director General.
- Follow-up the implementation of the collective agreement
- Direct all sections and units in the directorate

In short the Director General and the Personnel Director have the following authorities in common:

- . Establishing long-term and short-term objectives
- . Prepare HRP
- . Formulate personnel policy
- . Overall review and evaluation of personnel programme

However, what were the actual performance of the officials incumbent in 1986 - 1994? And what was their style of leadership? The following discussion focuses on answers to these questions.

5.2.2 Management Actual Performance

Establishment of Objectives

The Treaty of 1981 established the purpose of EJRC in terms of providing transportation of freight and passengers under optimum conditions and safety and at break-even point. However, important these specific purposes may be, the EJRC also requires objectives which establish the broad lines that will guide EJRC's actions in the pursuit of its tangible goals. The EJRC presently has no set of such general, or instrumental, objectives (Soferrail Consult Report, 1986). "Management today is virtually working without any meaningful targets and indices of performance" (Daniel/ABD Report, 1994). Ambassador Ahadu Sabure (1971) in his letter to H.I.M. Haile Sellasse I said, "The company lacks clear goal to act like a profit seeking entity" (Source: Gulelat 1973.). As straightforward as this sounds, the top managements of EJRC that were managing the company during 1981 - 1994 had one common thread running between them: neglect of strategic issues. The following discussion more attests this fact.

Human Resource Planning (HRP)

The EJRC has no company plan. "Company-wide HRP cannot be accomplished adequately unless the company knows its business strategic plans, including present and future corporate goals (Summers, 1981:17). Hence, EJRC has no HRP as much as it lacks company instrumental objective. The following table taken from the report of the EJRC's Organization and Management Department (OMD) is a standing evidence to the above assertion.

TABLE IV: Labour Turnover in EJRC For 1980/81 - 1993/94

years	number hired	%
198/81	2493	-2.0
1981/82	2536	1.7
1982/83	2542	0.2
1983/84	2520	-0.9
1984/85	2548	1.1
1985/86	2573	1.0
1986/87	2592	0.7
1987/88	2614	0.8
1988/89	2595	-0.7
1989/90	2589	-0.2
1990/91	2616	1.0
1991/92	2550	-2.5
1992/93	2662	4.4
1993/94	2632	-1.1

Source: EJRC Report.1993/94(Amharic version)

As this table shows, the employment of one year is measured against the preceding year performance but not against the target or manpower plan for that given year. For there is no employment target established for the company. Because of this, variance from schedules is not included in the report. The table evidences that hiring is often handled on an ad hoc basis rather than studied in advance.

Policy Review and Evaluation

There have existed indicators that warrant the review of personnel policies and programmes in EJRC.

a) Recurrence of reports on hiring

- The income statements of the Company that have been prepared annually by external chartered accountants for the General meeting of shareholders since 1970-1993 indicate that wages and salaries represent two-thirds of total expenditure.
- The report of the ad hoc committee (1971) attributed the financial problem of the company to the escalation of wages and salaries to 63% of the expenditure (source: Gulelat, 1973).
- The Soferral Consult experts report (1986) indicated redundancy of labor in the rail security team.
- The Daniel/ABD Consult experts, (1993/94) likewise, highlighted the unnecessary rise of the wage expense to 63%.
- The EJRC OM analyst in his report of 1994 had reinforced the report of Daniel/ABD report.

b) Company unrest.

Because of high grievance rate there is unrest in the company. "Absenteeism is a prime example of a major CDE (EJRC) problem... which now averages about 25 percent a year... versus industries in developing countries where 10 percent is considered high... the true reason for absenteeism is harder to detect. ...Instead the proper approach is to try to get to the

cause of the problem (Sofrail report, 1984/85). This can be achieved by survey into the attitude of employees.

But the participants in this survey attested that at no time have staff interests been surveyed as the following table indicates

Table V: Number of response for the malpractice in opinion survey in EJRC

	Dire Dawa		Mesio		Nazreth		Addis Ababa	
	Yes	No	Yes	No	Yes	No	Yes	No
Did management survey your opinion?		109		11		8		58

The estimate of the population proportion is as follows:

Stratum	Participants	Respondants	Proportion
Dire Dawa	120	120	1
Addis Ababa	66	66	1

$$\begin{aligned}
 \bar{P}_s &= \frac{1}{N} \sum_i^L N_i \bar{P}_i \\
 &= \frac{1}{2290} \sum (1500) (1) + (790) (1) \\
 &= \frac{1500+790}{2290} \\
 &= \frac{2290}{2290} \\
 &= 1
 \end{aligned}$$

Therefore, 100% of the target population confirms that opinion survey have not been conducted in the company.

The personnel administrator who is responsible for reviewing personnel policies and programmes disclosed that because of his extensive engagement in day-to-day activities of the company, no opinion survey had been done for policy review in the past five years.

The above facts will indicate that reviewing personnel policy and programmes has been a forgotten function by the top management of EJRC between 1991-1995, at least.

Morale of the employees declined more and more through the progress of time(OM analyst interview). Moreover, Ato Yemane Birhan, the Vice Chairman of the trade union of the company, outrightly stated that the rights of the employees are not respected for the management of the company is nonconcerned towards them (Addis Zemen, Amharic Daily, Tir 4, 1989.E.C). The management of the company had not refuted the allegation.

5.2.3 Management Style and Use of information

The management that is not concerned for the operation and employees of the company is impoverished management(Agarwal 1989: 278). Such a style of management began to exhibit itself after the 1959 treaty that established the company on a non profit foundation. Not only from the view point of operation and workers morale but also from the degree of information utilization.

"often times, a successful top level-manager is one ... who can process the information at hand- the same information available to many people- in new ways. A creative upper-level manager intuitively sees the possibilities for transferring ordinary data to produce new information over and above the mere facts of the situation. A manager who can do this is a valuable resource (Senn (1972, 1984), 1987:84).

As earlier discussed the style of management influences the need for and use of information. Accordingly the style of management in FERC shall be assessed from the information use point of view and its concern for the operation of the company and employees.

According to the Rapport Technique, 1971/72, of the Company, the financial situation was given as:

<u>Revenue (Eth. \$)</u>	<u>1970/71</u>	<u>1971/72</u>
a) From passengers	2,016,400	1,923,100
b) From freight traffic	14,317,900	12,970,600
c) Others	<u>912,100</u>	<u>1,180,500</u>
Total	17,246,400	6,074,200
<u>Expenses (Eth.\$)</u>		
a) Salary & allowance	8,656,027	9,044,106
b) Material expenses	2,948,587	2,826,426
c) Others	<u>2,339,096</u>	<u>2,987,376</u>
Total	13,943,709	14,857,908
<u>Balance (Eth.\$)</u>	3,302,691	1,216,292

This data does not show a healthy picture of the business activities. The revenue decreased by 7% but surprisingly enough the expenditure rose by about 7% (Gulelat 1973, 84). The negative effect could have been reduced by far and the expenditure been kept closer to the level of 1970/71 had the data been interpreted properly and used for decision on hiring.

Nor the management of FERC used the information from clients as a base for improving its service or for the strategic planning. It is a fact that information from clients can serve for establishing objective (Scott 1986:41-42; Davis & Oslon 1985: 6-7)

There were streams of complaints both from exporters and importers on delays of shipment. The following are excerpts among others, taken from the letter of two companies complaining about the delay of services (Gullelat, 1973).

In June, 1972, the Sabean Group of Associated Companies (Sabean Metal Products Company, Cotton Company of Ethiopia, S.C. and Fibber Company of Ethiopia, S.C.) sent a formal letter of complaint to the Manager of the FERC. This letter of June 3, 1972 Ref AA/oh/58/72 states that:

During the last two years there has been an average delay of two months in providing the necessary waggons by C.F.E. for transporting our raw materials, spare parts, machinery, etc. from Djibouti Port to Akaki or Dire Dawa; This has caused our Companies to suffer increased expenses and increased cost of production, due to additional bank interest and insurance charges, as well as deterioration of raw materials which are stored in the open air for an average of two months at Djibouti Port, awaiting railway waggons to transport them to our respective factories in Akaki and Dire Dawa. We hope you will confirm to us that no such delays will occur again in the future. (Source: Gulelat, 1973: Apprndix II)

The other was the Ethiopian Coffee Exporters Association. The then president of the association in his letter of March 29, 1972 had expressed to Ato Asnake Getachew, the General Manager of the National Coffee Board, his concern about the delay of locomotives and its effect on coffee export (source: Gulelat, 1973). Despite these correspondences nothing

was done to improve the service of FERC. The nonutilization of information in the company is not only characteristic of the top management but also of the Board of Directors and Head of States.

The president of the Coffee Association also informed about this situation to the technical controller of FERC who in turn in his letter of January 30, 1970 brought it to the attention of the then chairman of the Administrative Council (Source, Gulelat 1973)

Moreover, in his letter of August 22, 1971, H.E. Ato Ahadu Sabure, the then Ethiopia's Consul General in Jibouti, preoccupied with conscious reason, had informed H.I. Majesty Haile Sellasie about the worsening service conditions of FERC and with all honesty requested the Emperor to dispatch earnest directives to the company so that it takes all initiative to enhance its services (Source, Gulelat, 1973)

The ad hoc committee of experts established in 1973 to investigate the financial condition of the company had attributed the basic cause of the financial difficulty of the company to escalation of salary and wage expenditure to 60% of the income (Gulelat 1973). To solve this and other problems of the company, the committee had recommended the reorganization of the company and its staffing with competent managers.

It should be very astonishing, however, to note that no one, be it the Emperor, or, the chairman of the Administrative Council had taken any to improve the service of the company and its management. This therefore predicates the persuasiveness of the abnormality in using information at all managerial or administrative level of the FERC.

The EJRC has also speeded up the decline of productivity, as the following table depicts, by EJRC's own measurements of comparison (OM department 1994 Report).

TABLE VI: The Performance Results and Hiring for 1989-1993

Description	1989	1990	1991	1992	1993
Freight (tons)	315835	299035	295378	279711	230000
Passengers (000)	1245.9	989.6	616.3	710.8	890.0
hiring	2589	2616	2550	2662	2632

Source: Organization and Management Report, 1994

The decline of services warranted reduction in the labour force. But contrary to this fact the management increased the labour force by 23% while the traffic service declined by 70% . This shows that the management of EJRC, like that of FERC, does not use even internally generated information for the purpose of improving resources utilization. This is because of the fact that they are politically not accountable for any loss that may occur in the company. It is the responsibility of the two governments to take measure to cover the loss (Art 15. of Annex II). "Information only has value if it changes a decision (Davis & Oslon, 1982:225).

The financial reports that had been produced between 1975 and 1995 all indicated the continuous increase in labour cost while the operation was declining. The information contained in the report had not been used to change decision on hiring. Rather, financial report is used to request supplementary budget. The ultimate result of the supplementary budget is not advancing the operation of the company but the draining of the treasury of the two states in general and that of Ethiopia in particular. According to paragraph 8 of Article 4 of the Treaty, Ethiopia is duty bound to extend 90% of the loan requested by the company while Jibouti is obliged for 10%. Up to 1980 the company owed the two governments Birr

14,000,000 (Ye Babur Dimts). After the 1981 Treaty this sum of money was cancelled by Article 3 of Annex II. As a result, Ethiopia lost Birr 12,600,000. This is a heavy burden for Ethiopia that is the poorest country in the world. This makes imperative the promotion of the use of information in general and human resource information in particular in decision-making in EJRC. There is no other alternative to it.

The financial report as a source of information is produced at a cost of birr 45,000 semi-annually (informal discussion with the accountant of the company). It should be used as other resources in the way it can bring optimum return for the organization. This can be when it is utilized to change faulty practices and thereby reduce cost associated with it. This requires a will to accept utilization of information. But the management of EJRC has been deprived of the will required for the purpose. This is due to the non-profit value of the company that conditioned it. One may argue against their functional or cause-effect relationship.

The impoverished style of management has exhibited itself since the 60's with the transformation of the company from commercial to political enterprise. This generalization, I argue, will be valid for it agrees with the tradition and creed of industrial relation research. "In industrial research, the problem is "to explain behaviour." The explanation thus provided may be partial or relatively complete; it may note immediate or proximate factors, or it may search for their roots and beginnings. Popular usage might say that research seeks "causes" and "effects." However, the causation thus described is a matter of degree. "Ultimate" causes may remain obscure. For some purposes "functional relationships," which merely note that a given effect is generally associated with certain conditions may be almost as

useful as a knowledge of actual causation (Yoder, 1956:848)." What is the impact of this style on the HURMIS of the company?

5.3 ANALYSIS OF THE PRESENT HUMAN RESOURCE PROCESSES

This section analyzes the status of the components of HURMIS in EJRC independently and in relation to each other components. Additional constraints(internal and external) have been included in the overall analysis to determine their impact on the existing system and on the key decisions affecting the proposed system.

The ultimate aim of the analysis is to ascertain the impact of nonutilization by the impoverished style of management in the company on the set up and performance of the existing system, and its capability to support strategic decision related to HRM. "...the scope of formal information system is limited, among other things, by the capability of a manager to accept and act on the information (Davis & Olson (1974), 1985:201).

The problems that are inherent in the HURMIS of EJRC are:

- . Functional
- . Structural
- . Environmental

5.3.1 Functional Problems

By functional problem it means the failure of the system to support strategic decision-making and employee-management communication. The following discussion discloses the functional problems that exists in all HURMIS subsystems.

Employee Information Communication System(EICS)

As blood vessels are link between the heart and other parts of the body, so also communications are information vessels (Hampton,1985:399) that link management with employees of the organization. No organized activity and co-operative effort is possible without communication among those engaged and between them and their environment(Connolly 1977). But this fact should not be taken for granted. Means must exist for regulating it. The recognized means (Becker,1968) for regulating communication between management and employees in a business organizations are:

- opinion survey;
 - suggestion system;
 - grievance meetings;
 - annual reports;
 - publications;
 - supervisors.
- informal communication.

The first three are means for upward communication; the fourth is a means for downward communication, and the last three are, for two-ways communication. Taking this into consideration, this section assesses the existence and performance of the means of EICS in EJRC.

Supervisors as a channel

For downward communication the most widely approved channel is the chain of command through the supervisors (Yoder, 781). So, supervisors serve as channels for communication to rank-and-file. "They also tap subordinates idea with their sympathetic listening. Most current practice places a heavy responsibility on foreman and supervisors for both upward and downward oral communication. They are supposed to bring policies, rules and regulations to rank-and-file(Yoder 1956:319). However this depends on their skills of communication. Because of lack of skills they may exhibit inefficiencies as a medium as in EJRC.

"The so-called collective agreement, moreover, was not conveyed to the employees as required. For the supervisor has not been properly trained in how to communicate with his subordinates. ... The average first level supervisor does not know the details of, nor does he fully understand the collective agreements between the union and the company (Soferrail Report 1986).

Still they are deficient as means of communication as the following table reveals it.

TABLE VII. The Employees Attitude on Supervisors Role as Communicators

QUESTIONS	EMPLOYEES RESPONSES							
	A.A		Nazreth		Meiso		Dire Dawa	
	YES	NO	YES	NO	YES	NO	YES	NO
Do you believe that your communication with top management is satisfactory?		58		8		11		109
Do you think that supervisors transmit your idea to management and that of management to you satisfactorily?		58		8		11		109

The table reveals that because of inefficiency of supervisors as a channel there exists unsatisfactory upward and downward communication between management and employees. Their inefficiency in conveying the meaning of collective agreement to the employees was discovered a decade ago by Soferrail consultants(1986). In that report it was the lack of communication skill that was considered as a cause. This problem is not still resolved. According to the interview of personnel director no training has been given to supervisors in the field of communication. According to him, they are promoted only for their technical expertise.

Annual reports

Annual reports describe essential facts concerning the conduct of business, its expenses and profits, its income, and the distribution of that income. In part these reports are regarded as

service to employees comparable to those provided for stockholders in annual or quarterly reports (Yoder, 1956:787).

According to articles 9, 17, and 19 of Annex 2 of the treaty of 1981, the annual report may compose of three reports:

- personnel audit report prepared by General
Manager
- technical report produced by Technical
Controllers
- financial report submitted by external auditors.

With the survey conducted into the annual reports(1970-1990) of the board of directors it was discovered that all the reports omit personnel and manning reports as required by Art. 9 of the statute. On the other hand, there have been a reluctance of distributing the annual reports among employees (interview with OM officer).

To measure the effect of not distributing annual reports among employees on their understanding of the company performance the participants were asked:

Do you think that the company is making profit? Yes_ No

The response was:

TABLE VIII: Employees Reflection on the Profit of EJRC

Sites	Responses	
	Yes	No
Addis Ababa	58	---
Nazareth	8	---
Meiso	11	---
Dire Dawa	109	---

The estimate of the population proportion is as follows:

Stratum	Participants	Respondants	Proportion
Dire Dawa	120	120	1
Addis Ababa	66	66	1

$$\begin{aligned}
 \bar{P}_s &= \frac{1}{N} \sum_i^L N_i \bar{P}_i \\
 &= \frac{1}{2290} \sum (1500) (1) + (790) (1) \\
 &= \frac{1500 + 790}{2290} \\
 &= \frac{2290}{2290} \\
 &= 1
 \end{aligned}$$

Therefore, 100% of the target population confirms that the company is making profit.

The current General Manager in his press release of Yekatit 17th, 1989 E.C had brought home to the general public that the company is incurring birr 20,000 per day. Therefore the response of the employees regarding the profit is unreliable. However, it is worth noting that

the confusion on the side of the employee is created because of lack of information, i.e., not receiving annual reports.

SUGGESTION PROGRAMME AND GRIEVANCE MEETINGS

To identify the practice of suggestion programme and grievance meetings attempts had been done through the questionnaire. The employees were asked:

. Do you have grievance meetings with management?

Yes __ No __

. Does the company have suggestion programme?

Yes __ No __

The results were:

TABLE IX: Employees Reflection on the Suggestion Programme and Grievance Meetings

	Questions	A.A		Meiso		Nazreth		Dire Dawa	
		Yes	No	Yes	No	Yes	No	Yes	No
1.	Do you have grievance meeting with management?		58		11		8		109
2.	Does the company have suggestion program?		58		11		8		109

The participants and the response trend is the same as that for the profit-making in the preceding discussion. Therefore, the population proportion is 100%.

Publication

The employees of the company had unanimously responded that there has not been magazine or newsletter published in the company. This response is also cross-checked by the interview with legal advisor who have the responsibility for publishing these organs. That is he attested that no publication is conducted in the company.

Theoretically, Company magazine is conceived as the principal agency of management communication to employees. The typical management discusses with considerable forthrightness the state of the business, the menaces of competition, the need for profit (New Comb and Sammons 1968) with his employees. It is Explicit that publication increases employees awareness and trust between management and employees.

It can therefore be said that the EJRC employees misinformation of their Company performance is attributed not only to reluctance of distributing annual reports but also of dragging foot on publication. Therefore, the analysis of this section in its totality shows the abnormality pattern in employee - management communication .

Informal Communication

Every organization has informal channels. It is a way information and misinformation travel through the "grapevine." They carry both information and misinformation both vertically and horizontally. As a result, some employers have sought to counter misinformation that circulates in the grapevine by holding "rumour clinics" and "nail the rumour" sessions. They invite anyone who hears a rumour to get the correct information. They promise to answer all

rumours that are reported (Yoder 1956: 778). "By far the most important method of tapping the ideas of subordinates is informal contacts within department and outside the work-place." (Planty & Machaver, 1952).

However, contrary to this management tradition, the EJRC officials established a rule in the collective agreement to do away with gossip in organization (Article 3:A-20). This is arbitrary and capricious policy. For, informal communication cannot be wished away. Rather its harmful effect can be tackled by releasing correct information. The strong aspect of informal communication can be effectively utilized if appropriate approach is employed.

Information Generation System(IGS) in HRM

IGS produces new information for decision-making. Generating information is essential if the company intend to plan and make decision that will improve its performance (Summer 1981, 496).

The duty of the Personnel Director requires such information generation system for he is responsible for consulting the General Manager on the need and methods of changing the structure to adapt the company to changing environment.

Explicit, the discharge of this duty will require investigation into the organizational structure and identification of its defects. Without such a study it is difficult if not impossible to come up with the objective structure. Reliance on pertinent data and information is an important part of the entire change process (Summer 1981, 393).

There is a section delegated with this responsibility in Personnel Directorate of the company. It is designated as "Organization & Management Department(OMD) headed by a senior organization analyst.

His duties are:

1. Come up with suggestions for improvement of company structure and authority relationships.
2. Conduct study on the existing forms and propose the ways of improving them.
3. Determine studies to be conducted on work methods to improve the existing ones or to devise new ones.
4. Study the filing system and implement a better one that helps efficiency.
5. Establish standard for the preparation of departmental and company manual.
6. After the findings of studies are accepted, prepares directives for their implementation and gives assistance to the concerned departments.
7. Audits the implementation of training programs.
8. Studies the impact of public policies on the company performance.
9. Establish link with external organizations that may cater information or knowledge to the company.

As the above shows, the duties of the OM officer are strictly of personnel research and audit nature. Out of these duties the officer has fulfilled only duties # 2 and # 3.

Apart from the survey indicated above, the employees attitude has never been surveyed in the history of the company.

Pre-1985 there was no staff office designated for the purpose of generating information related to organization structure and other personnel functions. Hence, a research work on...labour affairs... was neglected(Gulelat,1973: 50)

For post-1985, the reasons given by the OM analyst were :

- . shortage of staffs; and
- . engagement in day-to-day activities.

Information Service System

The Information Service functions distributed among different departments and depicted on the company structure include the followings:

- Library;
- Personnel Statistics;

Library Service

The company owns a library established to support its training program. However 14 years have elapsed since the training program is abandoned and the library become dysfunctional. This is because of the fact that its collection are out dated.

Personnel Statistics

Personnel statistics which refers to facts classified according to their measurable characteristics such as reports which describe changes in safety, accidents, illness, grievances,

benefits and services, job evaluation, transfers, termination, suggestion systems, pensions, and recreational activities (Yoder, 1956:822-824).

The report should point where corrective action is needed, and encourage detailed study. That is, policy on report arrangement need be established. There is inconsistency in EJRC.

According to sections 2; paragraph 4 of Article 9, the Director General has the duty of providing the meetings of the Board of Directors with personnel and company performance reports.

Regarding personnel report the content is specified to include general conditions of employees, training programme, and hiring practices. The general conditions of employees presumably refer to absenteeism, grievance, disciplinary measures, aggregate performance, and turnover are missing. This is because of the fact that those records are not reported or transmitted to the personnel archive by line departments. They are insulated by lack of policy for their aggregation with other personnel data. As a result, the Board of Directors have been deprived of at least reading the true picture of employees conditions.

5.3.2 Structural Set-up

The structural set up has three dimensions:

- . Division of work
- . Departmentalization
- . Co-ordination

Division of Work

For the purpose of specialization and productivity the work of a production system is divided and assigned to competent personnel in a logical manner to eliminate duplication of effort and other forms of waste such as overlaps(assigning two individuals for the same job; gaps(floating of duties or duties that are not assigned); If an organization exhibits these defects it is bad organization(Agarwal 1982:212).

As ascertained by survey into their job descriptions and the report of 1993/94 of OM department to the Personnel Director there is overlap of the duty of personnel officer and the statistician for preparing personnel statistics. Likewise, the personnel officer and the OM analyst are assigned to prepare performance reports on labour turnover. Consequently, two reports of the same type are produced and submitted to Personnel Director resulting in waste of money and energy. The other defect in division of work is the existence of floating jobs. One is of the system analyst and the other is of publication officer(Interview with OM analyst)

Departmentalization

Departmentalization represents the pattern of grouping activities. Similar activities intimately related with a distinct function (i.e. definite end or purpose) are grouped together to form departments (Agarwal, 1982:132). It aims at achieving unity of direction and purpose. Drucker (1974) suggests that key activities should be identified, and analyzed in terms of the contribution they are expected to make. Major activities, considered from the

view point of their contribution to the attainment of organizational goals are classified into four categories:

- . result producing activities
- . support activities
- . hygiene and maintenance activities
- . top management activities.

The result producing activities are those that contribute to the performance of the entire enterprise. Support revenue contributing activities help result producing activities. In turn, effective maintenance activities relate to the creation of environment for the performance of result producing and support activities. Providing facilities such as medical and recreational services, creating healthy work climate, etc., are examples of such activities (Drucker, 1974:530-535).

Drucker provides three broad criterion for grouping activities:

- key activities should never be subordinate to secondary activities;
- revenue producing activities should never be subordinated to non-revenue producing activities; and
- hygiene activities should never be grouped with result producing and revenue contributing activities.

In short, the grouping of activities are guided by the unity of purpose existing between them and their relative contribution to organization goals.

The arrangement of Personnel Directorate in EJRC some what negates this basic tenets of management.

The hygiene activities are the responsibilities of personnel administrator. Besides, he has been delegate the responsibility of policy and programme audit which is information generation activity is support activity. It is however organized with hygiene activity in EJRC.

Planning is top management activity. However, it is grouped together with information service activities which are support activities. Such arrangement has detracted the officer from focusing on planning to engage in day-to-day control of computer processing activities (Soferrail Report, 1986).

The term's legal work ... supports the entire value activities, i.e., primary activities and support activities (Schultheis and Sumner, 1989:5). As such it correspondence to what Drucker designated as hygiene and maintenance activities. However, it is grouped together with publication activities which underlies communication functions.

Co-ordination

For successful performance, information system required an integration of the contribution of its special units or subsystems. ... this is what co-ordination means (Hampton (1977), 1981:287). Co-ordination is the practice of implementing the notion of unity of purpose. "Co-ordinating is the process of pulling all the parts of the organization together so that activities contribute their optimum toward the achievement of its predetermined goals (Agarwal, 1982:235).

The interdependence that exist between group of activities or function and the results effected by that interdependence indicate the need for co-ordination.

Company publication is a means of upward and downward communication. It transmit the ideas, opinions and grievances of employees to top managers and to line managers.

The grievance communicated can serve the personnel research units as warning information to start research project (Agarwal, 1982:241). Besides, the research result should be transmitted to the employees (Yoder, 1956:770).

Moreover, it is the responsibility of personnel staffs to serve as a link between management and employee. It is the responsibility of personnel officers to then actively gather information from top management and other employees in their organizations and to translate this information into a format so that the adopted policy is a practical tool for helping management run its organization. (Summers, 1981:32).

This note proves that the personnel research and publications are interdependent and the results effected jointly is the upward flow of employees idea and downward flow of management feedback. As such the two functions require strict integration rather than separation. The grouping of communication function with legal function in EJRC was found in appropriate. Because, such arrangement is showing failure to achieve co-ordination. "This often manifests itself in such symptoms as loss of control ... and neglect of responsibilities" (Hampton (1977), 1981:287). True there is neglect of employing public relation officer who would have been responsible for publication.

Co-ordination also requires mechanisms. Mary Parker Follet (1920) has suggested certain methods of co-ordination. One, among the others, is policy. Policies serve as impersonal mechanisms of control and are, therefore, more effective co-ordinators.

A policy on information is required to ensure the harmonious implementation and operation of "HURMIS, co-ordination and compatibility of the total human resource information systems, better complementarily and compatibility between the various legislative concerning the provision of such information (Adapted from Montviloff 1990:11). There is no information policy that specifies co-operation between subsystems of HURMIS.

The following table summarizes the positions of the subsystems of HURMIS in the company.

Table X: The location of the components of HURMIS

Components	Location		
	Division	Department	Incumbent
Personnel research	Personnel	OM	Senior analyst
Personnel audit	Personnel	personnel administration	Personnel administrator
Personnel statistics	Personnel	Personnel Administrator	personnel officer
Library service	Personnel	Recruitment and training	Librarian
Publication	Legal advisor and public relations office	Public relation	Public relation officer

5.3.3 Environmental Problem

The organizations that constitute the environment of EJRC, among others, are:

- ◆ Higher Institutes of Education
- ◆ Professional Associations

A number of American, European, and Indian Universities have created special industrial relations centres that maintain research programmes, engage in co-operative research with industry, unions and government agencies, and provide special conferences and seminars (Yoder 1956:873). This note indicates the existence of co-operation between business organizations and educational organization for generating information.

But such reciprocity between business organization and higher institutions in Ethiopia is lacking. Ato Ayalew Zegeye, Chairman, Department of Management and Public Administration of AAU, in his welcome speech to the symposium held in 16-18 June 1995, at Debre Zeit Management Training Centre, had attributed the cause to two interrelated factors.

The first problem is that of the socialist ideology and the resultant command economy which considered business as a bourgeois activity and hence anti socialist. This led, for example, to the dissolution of the College of Business Administration through merging with the business departments of the University. Actions of this kind strengthened disciplines which contributed to the enhancement of the command economy such as central planning and discouraged and reduced the status of business administration which has to do with the

promotion of private initiative. Management was also taken as a task that can be performed by anybody who is politically credible.

The second is the absence of a professional association that would have contributed to development of the profession and enhancement of the contribution of training managers to the alleviation of the management problem of the Ethiopian economy.

5.4 CURRENT NEED ANALYSIS

In designing new system, the analyst must consider the requirements of the major users and determine the extent of their dependence on the new system.

In determining the user's requirements, an understanding must be reached as to what can be expected of the system. Although it is the user's responsibility to spell out what is wanted, this phase is often delegated to the system analyst for a final decision (Awad 160). However, it is necessary to carry out a User Study which is essential to identify the following:

- (1) To identify the types of information needed by users;
- (2) To identify the purposes for which these types of information are needed;
- (3) To identify the possible relevant source of information;
- (4) To identify the possible means of collecting the data from the sources.

The necessary data were collected from the following groups of identified users or the research population:

- (1) The Director General;
- (2) The Personnel Director;
- (3) The Personnel Staffs;
- (4) The legal Advisor; and
- (5) The Employees.

The collected data were analyzed to find answers to the different pertinent questions. The results of the analysis have been summarized and furnished in a later section along with discussion on the findings.

5.4.1 Employees

The participants were asked, "As you are the employees of the company you may need to give and to receive information from top executives. The following are types of information possible to get from them.

- a. company performance/financial condition
- b. future plan and programme
- c. competition problems
- d. work rule and regulations
- e. management-union controversies
- f. company history

Which of the above pieces of information are you regularly getting from top executives?

The results are:

TABLE XI: Information Received from above

Items	Stations			
	Dire Dawa	Meiso	Nazreth	Addis Ababa
Work rule and regulation	109	11	8	58

The next question was "which of the above information do you want to get in the future?"

TABLE XII: Information needed by employees

items	Frequency	%
Company performance	15	8
Future plan	44	23
Competition problems	73	46
Operation problems	10	5
Management-union controversies	30	16
Company history	14	2
TOTAL	186	100

Regarding their need to give information they were asked, "Which of the following information do you want to give to the top executives?"

The results are:

TABLE XIII: Items of information to be given by employees

Item	Frequency
Work area problems	26%
Housing problems	16%
Grievances on supervision practices	41%
Suggestion on improving the company's sport club	17%

The other questions that were asked were their need for attitude survey and suggestion system. Regarding the suggestion system the responses were as follows

TABLE XIV: Employees feeling toward suggestion system

	Dire Dawa			Meiso			Nazreth			Addis Ababa		
	Y	N	NA	Y	N	NA	Y	N	NA	Y	N	NA
Do you want to have suggestion system?	100	-	9	2	-	9	8	-	-	47	-	11

Y = Yes NA = No Answer; N = No

The estimation of the population proportion in favour of suggestion system is as follows

Stratum	Participants	number favoured	proportion (P _i)
Dire Dawa	120	102	0.71
Addis Ababa	76	55	0.72

$$\begin{aligned}
 \bar{P}_{st} &= \frac{1}{N} \sum_{i=1}^L N_i \bar{P}_i \\
 &= \frac{1500(0.71) + (790)(0.72)}{2290} \\
 &= \frac{1065 + 571.7}{2290} \\
 &= \frac{1636.7}{2290} \\
 &= 0.71
 \end{aligned}$$

Therefore 71% of the target population have need for suggestion system.

The response for attitude survey is unanimous

TABLE XV: Employees feeling toward attitude survey

	Dire Dawa		Meiso		Nazreth		Addis Ababa	
	Yes	No	Yes	No	Yes	No	Yes	No
Do you need your opinion to be surveyed?	109	--	11	--	8	--	58	--

In relation to the interest for attitude survey, the employees were asked to identify which authority in the organization they favour to assume the responsibility in initiating and controlling the survey.

The results are:

TABLE XVI: Employees favouring a survey committee under the auspices of the Trade Union

	Stations				Total
	Dire Dawa	Meiso	Nazreth	Addis Ababa	
A committee established by trade union	95	--	--	50	135
A committee established by company	24	11	8	8	51

The estimation of the population proportion in favour of the Trade union initiated committee is as follows:

$$\begin{aligned}\text{Population Proportion} &= \frac{[(1500)(0.51) + [(790)(0.65)]}{2290} \\ &= \frac{885+513.5}{2290} \\ &= \frac{1398.5}{2290} \\ &= 0.61\end{aligned}$$

Therefore, 61% of the population is in favour of giving their opinion if survey is conducted by committee established under the auspices of the Trade Union.

5.4.2 Top Executives Need Analysis

The General Manager of the company, Mr. Buhh Hussein, in his interview of march 17, 1997, had expressed his deep concern for the deterioration of the lorries and the railway line. According to his conviction, the critical success factor is expediting the importation of the already purchased four machines. Regarding employees, he plainly expressed their state of depression. To get insight into this depression he indicated the need for their feelings, opinion, and idea on the administrative practices. As of the means for obtaining these data he envisioned the use of ad hoc committee and Trade Union.

The Personnel Director is more concerned with the morale of employees. He reflected the need for morale rehabilitation campaign. Regarding the means, he impromptuously proposed an ad hoc committee in his interview of March 17, 1997. As of the pieces of information needed for the campaign itemized the following:

- (1) History of the company performance;
- (2) financial status of the company;
- (3) efforts undergoing to revitalize the company; and
- (4) determination required on behalf of the employee at this juncture.

For the maintenance of close relationship between management and the employee he is of the opinion for the need to arrange periodic meeting .for supervisors and employees to discuss the problem of their concern and inform the Head Office accordingly.

5.4.3 Legal Advisor

He is responsible to advice the General Manager on all issues pertinent to public policy, law, and regulations. To facilitate his advise function he indicated need for law journal both domestic and foreign production, collective agreements in railway companies. As of the source and the means, he specifically referred to the company library and its reorganization. Regarding the publications , he states that there is favourable conditions in the company to start production of Newsletters. For there are more controversial issues than ever before that are raised by employees and the general public.

5.4.4 OM Analysts

The Organization & Management Analysts, i.e., the senior and the junior as well, have indicated that at this juncture the company is haunted by internal and external pressure to rearrange itself so that it copes up the market competition and maintain its sustainability. They forcefully expressed the inevitability of its change in all its forms. Based on this

conviction they highlighted the need for job analysis and design, attitude survey of employees to prepare the company for the impending change. To that end they emphasized their need for training in personnel research, work measurement and support for library service. Anyway all the target users has needs for information in different degree. It boils down to the need of primary information and secondary information. Explicit, this calls for information generation, communication and services systems.

REFERENCES

- Agarwal, R.D. 1989. Organization and Management, New Delhi: Tata Publishers
- Ayalew Zegeye. 1995. Wel-come Speech. In proceedings of the First Annual Conference on Management in Ethiopia Sponsored by the Department of Management and Public Administration, Addis Ababa University held at Debre Zeit November, edited by Ayalew Zegeye and Habteselassie Hagos. Addis Ababa
- Becker, Esther R. 1968. Providing two way communication, In Handbook of business administration, edited by H.B Maynard. New York: McGraw-Hill Book Company.
- Buh Hussein.1989(E.C). Press Release. Radio Ethiopia. Yekatit. Addis Ababa.
- Chemin De Fer, Franco-Ethiopien, Campagne Du.1979. Ye Babur Dimtsi(the Voice of Rail).August 1979.
- Connolly, T. 1977. Information Processing and Decision making in organization. In New directions in organization behaviour, edited by B.W Staw and G.R Salancik. Chicago: St. Claire Press.
- Daniel Consult and ABD Consult. 1995. EJRC: An Assessment of Institutional and Managerial Framework Final Report(unpublished)
- Davis, Gordon B. and Margreth H Oslon. 1985. Management Information System: Conceptual Foundation, Structure, and Development 2nd ed. New York: McGraw-Hill Book Company.
- Drucker, Peter F. 1974. Management : Tasks, responsibilities and practices. New York: Harper
- &Row
- EJRC. 1985(E.C). Job descriptions file.
- EJRC and EJRC's Trade Union. 1986. Collective Agreement. Addis Ababa. Ethiopia.

EJRC.1994. Report(Amharic version).

Governments of Ethiopia and Jibouti. 1981. Treaty on the Railway Company from Jibouti to Addis Ababa. Addis Ababa, Ethiopia.

Gulelat G/mariam. 1973. A Survey of the History and Problems of the Franco-Ethiopian Railways, S.C.(Unpublished)

Hampton, David R. 1981. Contemporary Management. New York: McGraw-Hill Book Company.

Interview of the General Manager

Interview of the Personnel Director

Interview of the OM analyst

Interview of the Legal Advisor

Knox, Frank M. 1968. Forms Control. In Handbook of business administration. Edited by H.B Maynard. New York: McGraw-Hill Book Company.

Montviloff, Victor. 1990. National information policies- a Handbook on the formulation, approval, implementation, and operation of a national policy on information. Paris:

UNESCO.

Newcomb, Robert and Mary Sammons. 1968. Employees Communication. In Handbook of business administration. Edited by H.B Maynard. New York: McGraw-Hill Book Company.

Planty, Earl and William Machaver. 1952. Upward Communication: A project in executive Development. Personnel 28(4): np.

Schultheis, Robert and Mary Sumner. 1989. Management information system: The managers view. Homewood,IL: Richard D Irwin, Inc.

Senn, James A. 1987. Information systems in management. 3rd ed. Belmont, CA: Wadsworth Publishing Company.

Summers, Donald B. 1981. Personnel Management in Banking. New York: McGraw-Hill Book Company.

Soerrail Consult. 1986 . Organization and Management Manual for Chemine de Fer du Djibouto-Ethiopie

Transitional Government of Ethiopia. 1993. Labour Proclamation. Negarit Gazeta. No.27. January 20th. Addis Ababa. Ethiopia.

Webster's New Collegiate Dictionary

Yemane Birhan. 1989(E.C). Press Release. Addis Zemen(Amharic Daily). Tir 4. Addis Abab.

Yoder, Dale .1962. Personnel Management and Industrial Relation. New York: Macmillan & Co.

CHAPTER 6

THE PROPOSED SYSTEM STRUCTURE

6.0 INTRODUCTION

It is a fact that that detailed information need analysis can not be conducted for top executives who are concerned with strategic management. Because, their information need can not be estimated in advance. Only it can be elicited when critical problem is created and critical success factors are identified. Hence, the information need of top management is that which is pertinent to critical success factors which makes it always to be limited. Therefore, developing an effective information system which accommodates the information needs of the top management at critical moment and that of employees regularly is vital and timely. In chapter 4, it was pointed out that the existing system is incapable to provide services expected from it. The discussion in the second section has indicated the need for an information support system for strategic management of employees. This chapter, therefore, attempts to address the different considerations that are required to design and implement such an information system. The design basically takes into account the information needs of the users of human resource information. The study deals with particulars, and general situations in developing the system for EJRC.

The purpose of the design is to achieve structural balance that emphasizes the important elements of the new HURMIS, those functions that have the greatest support to managerial critical functions that can ameliorate the current state of the company.

This, then, is the perspective the HURMIS structure must have. The design answers the basic question who, what and how. It enables the system to meet the information need of top

executives; staffs, and employees. By presenting the existing HURMIS structure, it indicates what changes will be required for the alternative system. The existing system has been identified with problems of functions, arrangement and reciprocity with the environment. In effect, it is deficient.

6.1 ALTERNATIVE ANALYSIS

Analysis of the current and an alternative structure is hereby presented using Mahler (1968) comparison model. It is a model of testing alternatives against behavioural benefits

6.1.1 Existing System Analysis

TABLE XVII: Analysis of the Existing System for Managerial Benefits

Behavioural Benefit	Positive Conditions	Negative Conditions
Co-ordination	----	Coronation across subsystems difficult because absence of authority and policy
Specialization	A few subsystems specialized (statistics and personnel record)	No specialization by profession; major subsystem not specialized.
Management attention	-----	Non-utilization of information and neglect of the subsystems and workers. No information planning and performance target.
Control	-----	Director General does not concern himself with developmental problem.
Development and retention	OM analyst has opportunity of being part of decision makers.	High cost for maintaining the system with marginal contribution.
Minimum cost	Floating jobs of system analysts and publication	

6.1.2 Proposed System Analysis

TABLE XVIII Analysis of the Proposed System for Anticipated Benefits to Management

Behavioural Benefit	Positive Conditions	Negative Conditions
Specialization	HURMIS centralized for entire company much greater specialization.	
Control	Human Resource Information Manager (HRIM) gives Personnel Director a vehicle to control both information and function. HRIM can achieve co-ordination across subsystems functions on their own.	
Co-ordination	HRIM focus Director General and Personnel Director attention on both current and future problems of the system. Personnel staff set up to stimulate the Director General to give attention to personnel responsibility.	
Management attention		His non-concern to financial operation may remain the same.

As observed from the two tables, the existing system is predominantly characterized with negative conditions; while the new HURMIS has strong positive conditions. Presumably, the new system may have more benefits for management than the existing one.

6.2 STRUCTURAL DESIGN OF HURMIS

The development of an integrated HURMIS for EJRC would improve the performance of the management and the understanding of employees through a sustained supply of information. The existing system has been identified with problems of functions, structures, and lack of feed back. It is because of the information nonutilization of the management that it becomes deficient. With its incapacitated condition it cannot overcome the cultural obstacles that prevailed it. It needs reorganization on a new basis.

6.2.1 Objectives of the new HURMIS

Long range objectives

Provide top executives with strategic information for strategic decisions pertinent to human resource management through getting the information generated, communicated and promoted.

Short range objective

- Promote by all means available the formulation of company information policy.
- Establish subunits capable to generate, communicate and promote the use of information at the top and middle level management.

6.2.2 Premises.

By premises it means the future conditions in which the implementation may take place. The conditions are envisioned as those that will be constraints and opportunities.

Constraints:

The realization of the new system may be restricted by the following obstacles.

- The company is under acute financial problem.
- The company's values are political and social - non profit.
- There is an absence of systematic business planning.
- The current management of the company has priority for substituting obsolete machinery by new ones which are in transit at this moment.

Opportunities

The existence of the unfavourable conditions indicated above from the logical point of view would have discouraged the immediate recommendations for designing and proposing integrated "HURMIS" for EJRC.

However, the following situations are anticipated impending opportunities:

1. The World Bank has already started to influence the two governments to commercialize the Company. As a result certain initiatives have begun on the side of the Ethiopian government. One example is the preparation of the draft proposal on

"Performance Plan Treaty" between the two governments. This effort of the Ethiopian government added to that of the World Bank may influence the government of Jibouti and thereby bring about the commercialization of the Company.

2. The railway technical deteriorating, losses of market share as well as risks of deficits and impossibility to finance the investment cost for rehabilitation may lead the governments to effect a fundamental restructuring of the railway entity itself and of its relationship with the states.

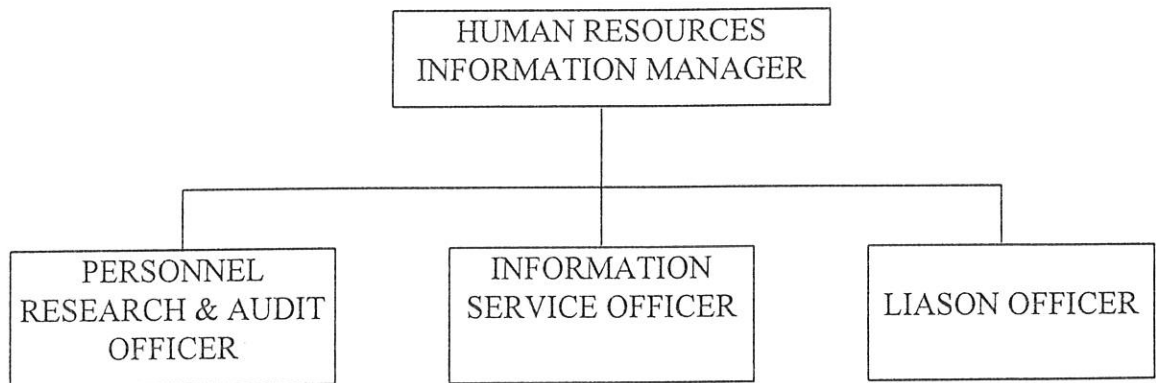
3. Institutes of higher education have started an effort of organizing symposiums on management and human resources. This trend hopefully will show progress and encourage EJRC to benefit from the intellectual efforts thereof.

6.2.3 Strategy.

To carry out the implementation of the short-range objectives, the strategy to be employed is persuasion of the top executives. The programme for implementing the strategy is detailed in the recommendation chapter.

6.2.4 Proposed Organizational Chart of HURMIS

Fig. 2 Proposed structure of Human Resources Information Department



6.2.5 The Duty of the Manager

- Initiate company information policy formulation and review;
- Co-ordinate the activities of the subsystems;
- Prepare the budget of the department
- Follow up the performance of the subsystems and take corrective actions wherever and whenever necessary
- Report biannually to the Personnel Director about the performance of his department

6.2.6 The Subsystems

The proposed system is composed of three subsystems:

- Employment Communication Centre (ECC)
- Personnel Research and Audit Office (PRAO)
- Personnel Information Service Centre (PISC)

6.2.6.1 The Employment Communication Center

Objectives

- Provide employees with timely information on company performance, company expectations, critical problems, etc. , through publication.
- Administer suggestion programme and meetings
- Let employees know how their net pay is calculated on the occasion their pay changes through letters or pay inserts: information leaflets inserted into pay envelopes.

Structure of employment communication center

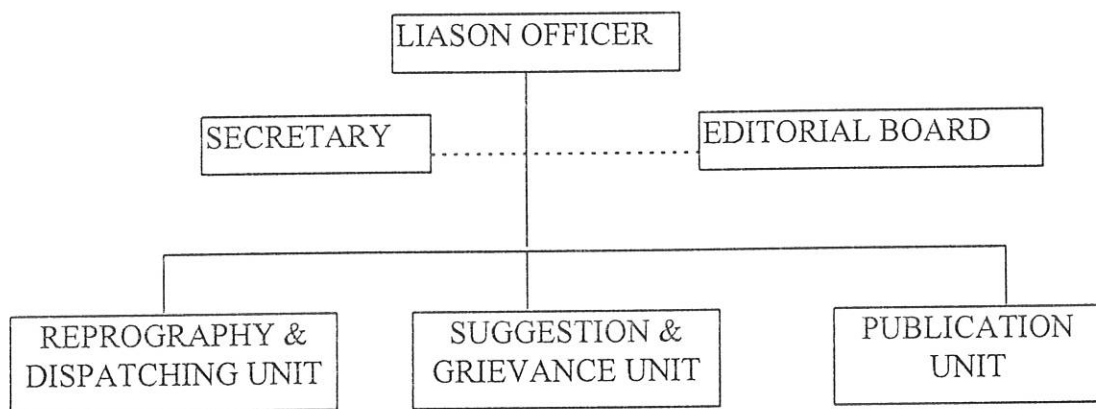


Figure 3.Proposed Structure of Communication Center

Duty of liaison officer

- Plan for upward and downward communication
- Control the implementation of the plan
- Establish the budget of the section

6.2.6.2 Personnel Research and Audit Office

Objectives

- generate information to revise personnel policies and programmes.
- generate information for management strategic decision.
- revise the job description as and when required
- assist managers to keep abreast with current development in behavioural sciences.

Structure of the office

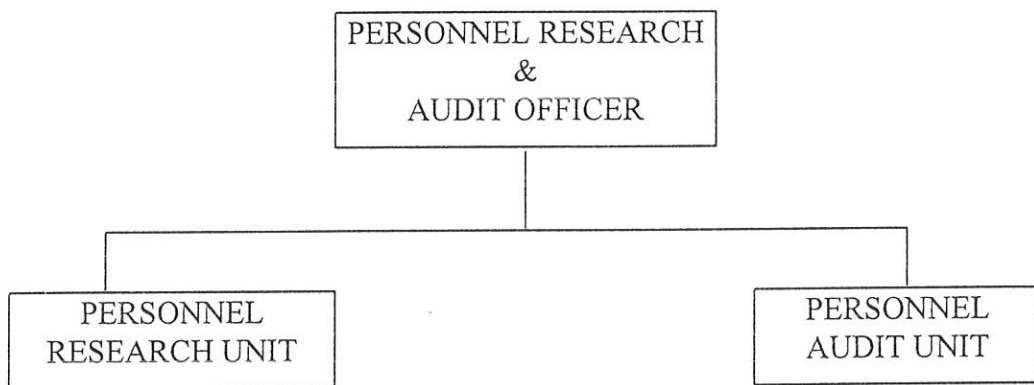


Fig. 4 Proposed Structure of Personnel Research and Audit Office

It is worth noting that the nomenclature Organization and Management is of recent phenomenon that disguised the function of personnel research. The proposal brings the latter to the surface and provoke a sense of responsibility to carry it anew.

Duty of the Research Officer

- Plan for research and audit
- Prepare the section budget
- Create external relations
- Control the performance of the units

6.2.6.3 Personnel Information Service Center

Objectives

- promote the use of personnel information in the company
- keep safe company documents, monographs etc.
- give access service to users
- make available documents and other data when requested.
- cooperate with other sections for mutual benefits
- Produce various statistical measure that highlights serious variation in performance from the plan.

Structure of Information Service Office

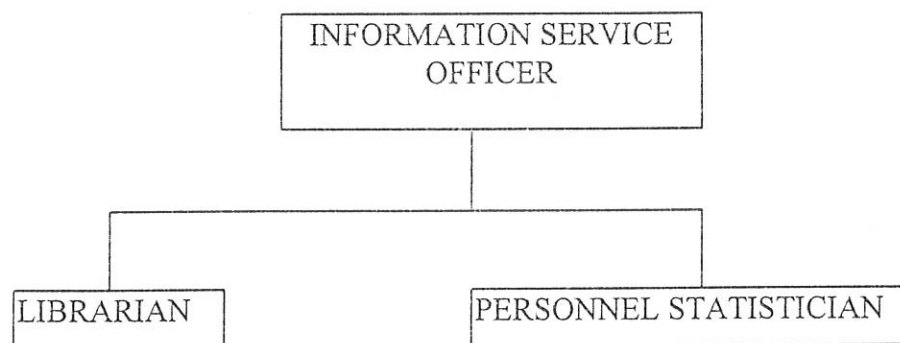


Figure 5. Proposed Structure of communication center

Duty of the officer

- Plan for information services
- plan for filing system
- Establish the budget of the office
- Extending the size and content of the library and statistical services
- - Control the performance of the units

CHAPTER 7

SUMMARY, CONCLUSION AND RECOMMENDATION

7.0 SUMMARY AND CONCLUSION

The railway lines running between Jibouti and Ethiopia were initiated by Emperor Menelik in 1893 under the Imperial Ethiopia Government Railway Company that had profit orientation. On June 20, 1908 the company was pre-empted by the then French government. under force majeure Emperor Menelik gave a new concession to his physician Doctor Vitalien. The later signed new treaty with French government on March 8, 1908. This transferred the company to the binational control but retaining its profit. During this time the company was profitable and its management efficient and effective.

In 1959 a new treaty was signed between Ethiopia and France. This treaty transferred the profit oriented company to non-profit one. After a decade of the Treaty, the company started to exhibit inefficiency in its performance. This was a chapter for the downward self-perpetuating spiral of the company. At this juncture, it was operating under deficit of birr 20,000 per day. This is because of inefficiency in its management which is witnessed by its non-utilization of information and even working in defiance of the shareholders policy. Had it used the information at hand it would have reduced the cost and thereby the deficit too. The underlying reason is that the management has no sense of responsibility for the performance of the company. Rather it is endowed with the right to expend money given to it from the treasury of the two states and request another loan for the maintenance of the operation. This is what was expected from the company. The total recovery of the company lies in changing its present outlook. But within the existing condition its recovery greatly depends on the use of information in general and that of human resources in particular.

The existing HURMIS is not in a position to serve that end. For, it is incapacitated by the functional and structural problems created by the managements' less need for information. On the other hand, there had not been reciprocity between it and its environment, i.e, higher educational institutions and professional association. The latter are of recent origin. The former had not been engaged in personnel or industrial research in any form. But they have taken initiative in the past few years. But it is deficient to count on these opportunities. The immediate action is to rehabilitate the present HURMIS. This is possible by mobilizing management support.

The strategy to this end is inculcating managers, union leaders, and personnel staffs with the value of information and the necessity of its utilization in general and with regard to the specific condition in EJRC to bring about attitudinal change and prepare the precondition for launching the rearrangement of the physical make-up of the existing system in accordance with the conceptual framework of TOHRIS. However, the implementation of the strategy requires pertinent and relevant tactical planning- appropriate programme and procedures. The set of recommendations made in the following section addresses these problems.

7.1 RECOMMENDATIONS

The information system proposed on the basis of this study is an integrated "HURMIS." It is proposed to support strategic decisions in human resources management. Its introduction in the existing system of EJRC requires internal and external support. However, the gaining of internal support is dependent on the environmental support: inculcation and persuasion of the management.

It is the treasury of the state that are more affected by the none utilization of information. Besides, the main victims of the consequence of the non-profit value of the company and the non-utilization of information are the employees. Therefore, the Board of Directors, should take the following measures:

- (1) Prepare company information policy, organize seminars, and inculcate the management to use information in general and human resource information in particular.
- (2) Change the value of the company in the long run.

APPENDIX I

QUESTIONNAIRE FOR EMPLOYEE

This questionnaire is designed to discover how readily ideas are transmitted and received through out the company. It tries to evaluate upward ,downward, and horizontal communication and mediums used in these processes. It attempts to identify the skill of the transmitter. The end result of the questionnaire is to collect facts for proposing better communication system for the company. Hence, you are invited to participate in the survey by answering the following questions.

Thank you for your co-operation

1. Do you conduct grievance meetings with representative of management?

Yes ___ no ___

2. Does the company have suggestion program?

yes ___ no ___

3. Does management get surveyed your opinion on its practices?

yes no

4. If yes, do you express your opinion with all honesty?

yes no

5. If your answer to question #3 is "no" do you need to be surveyed in the future?

yes no

6. Which of the following organizations do you prefer to survey you? (make "x" in blank space in front of the preferred organisation?)

- ___ Ethiopia Trade Union consultants
- ___ company personnel experts
- ___ private consultancy firm

7. The following are types of information possible to get from top management. Rank them according to your preference?

- a) company sales
- b) company performance report
- c) company financial report
- d) management future plan and program

- e)work rules
- f)company history
- g)company problems
- h)management-union controversial issues
- l)others, please specify_____

8. Which of the above information are you currently getting from top management and human resources department?

9. What types of information you are actually giving now to top management?

- a)complaint/grievances
- b)suggestions
- c)reports on performance
- d)request on feedback
- e)request on salary increment
- f)others, please specify

10. Other information you intend to give?

11. Do you think that your communication with management is effective and favourable?

yes no

12. Do you have company publication?

yes no

13. If yes, what type of mediums you use?

- a)company magazine
- b)union magazine
- C)others, please specify

14. Do you need them if they are published in the future?

yes no

15. Do you think that the company is making profit?

Yes___ No

APPENDIX II

CALCULATION OF THE POPULATION SAMPLE SIZE

N = target population = 2290

N_1 = Dire Dawa stratum population = 1500

N_2 = Addis Ababa stratum population = 790

= Strata variance = (0.5×0.5) : guessed conservatively:(see, Mendenhall/Reinmuth, 1982:724)

$$D = \frac{B^2}{4}$$

B = Bound on the error of estimation = less than 0.064.

$B^2 = 0.004$

$D = 0.001$

$ND = 2.344$

$$N_1 \sigma^2 = (1500)(0.25) = 375$$

$$N_2 \sigma^2 = (790)(0.25) = 197.5$$

$$\sum_{i=1}^L N_i \sigma_i^2 = 572.5$$

$$\frac{1}{N} \sum_{i=1}^L N_i \sigma_i^2 = 0.25$$

$$ND + \frac{1}{N} \sum_{i=1}^L N_i \sigma_i^2 = 2.344 + 0.25 = 2.59$$

$$N = \frac{\sum_{i=1}^L N_i \sigma_i^2}{ND + \frac{1}{N} \sum_{i=1}^L N_i \sigma_i^2}$$

$$n = \frac{572.5}{2.59}$$

$$= 221$$

APPENDIX III

The frame (lists) of rail stations between the boarder of Ethiopia and Addis Ababa as listed by the company are:

01 Dawale	09 Melka Jebdu	17 Asebot	25 Chore
02 Aysha	10 Hurso	18 Kora	26 Lome
03 Lazrat	11 Erer	19 Arba	27 Mojo
04 Hadhagala	12 Gota	20 Awash	28 Debre Zeit
05 Mille	13 Afdem	21 Metehara	29 Dukem
06 Harawa	14 Bikke	22 Welenchiti	30 Akaki
07 Shinelle	15 Mulu	23 Melka Jillo	31 Kaliti
08 Dire Dawa	16 Meiso	24 Nazreth	32 Addis Ababa

APPENDIX IV

CALCULATION OF SAMPLE SIZE FOR 32 STATIONS

The required sample size when sampling without replacement from small population, N, is

$$\text{Confidence Coefficient} = 0.95$$

$$\text{Its normal deviate } Z = 1.96$$

$$\text{Tolerable (error) level} = 1$$

$$N = 32$$

$$\sigma^2 = 1$$

$$n = \frac{NZ^2 \sigma^2}{(N-1)e^2 + Z^2 \sigma^2}$$

$$= \frac{32(1.96)^2 (1)}{(31)1 + (1.96)^2 (1)}$$

$$= \frac{122.9312}{34.8416}$$

$$= 3.528$$

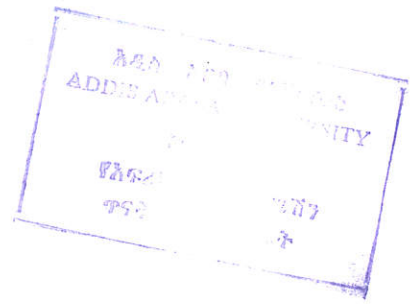
$$= 4$$

APPENDIX V

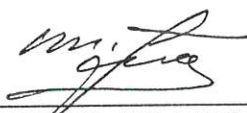
LIST OF PERSONS INTERVIEWED

- | | |
|----------------------|--------------------------|
| 1. Buh Hussien. | EJRC, Director General |
| 2. Tewoldebrehan G. | EJRC, Personnel Director |
| 3. Demssie Mammo | EJRC, Legal Advisor |
| 4. Tigiste Gezahegne | EJRC, OM Senior Analyst |
| 5. Beyene Mengistu | EJRC, OM Junior Analyst |


DECLARATION




The thesis is my original work and has not been presented for a degree in any other university.


MOHAMMED ABBAS TOSHA

The thesis has been submitted for examination with our approval as university advisors.


Dr. G.A. Alabi
May, 1997


Dr. Taye Tadesse
May, 1997