

APPLICATION OF JOB ANALYSIS AS A HUMAN RESOURCE
MANAGEMENT TOOL IN STATE CORPORATIONS:
A CASE OF KENYA FORESTRY RESEARCH INSTITUTE

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DECLARATION

This management research project is my original work and I wish to declare that the said work has not been submitted in any other university for the award of a degree.

Signature..... Date.....

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This management Research project has been submitted for examination with my approval as the University Supervisor.

Signed.....Date.....

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Thanks to the Almighty GOD for the gift of life, blessings and guidance that has seen me through this course.

Sincere gratitude to my supervisor Madam Florence Muindi for her tireless efforts, patience and commitments.

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DEDICATION

To my late Dad, my dear Wife and children for being great sources of encouragement and inspiration in my life.

ABSTRACT

Job analysis is an important human resource management tool in the sense that it helps the employees to understand their duties and responsibilities and an outline of the skills required is made. On the other hand, job analysis helps the organization to clearly design the organizational structure. This implies that through job study the organization is able to define positions, hire suitable staff to fill the positions, design proper workflows, establish reporting relationships, identify physical work environment, deployment of staff and assist in identifying training needs, among other uses of job analysis.

The objective of the study was to determine the extent to which job analysis is applied as a human resource management tool in KEFRI in pursuit of the achievement of her set targets. A baseline survey among 35 senior managers of KEFRI as a case study was undertaken to collect data on the application of job analysis to various human resource functions. The data was analyzed using content analysis procedures mainly using descriptive statistics and presented in tables and figures.

The findings showed that various elements of job analysis were not strictly applied when preparing job descriptions and job specifications. However, the results showed that job analysis had a significant contribution to the general improvement of performance of the organization. In conclusion, the inadequacies of the application of various job descriptors and like physical environment, skill and experience, workflow design and knowledge of conducting job analysis will greatly hinder the performance of State Corporation in achieving their mandate.

TABLE OF CONTENTS

Title	
Declaration.....	i
Acknowledgement.....	ii
Dedication.....	iii
Abstract.....	iv
Table of contents.....	v
Acronyms	vi
Chapter One: INTRODUCTION	
1.1 Background.....	1
1.1.1 Human resource management.....	2
1.1.2 Job analysis.....	4
1.1.3 Kenya forestry research institute.....	5
1.2 Statement of the problem.....	7
1.3 Objective of the study.....	8
1.4 Significance of the study.....	9
Chapter Two: LITERATURE REVIEW	
2.1 Organization Roles.....	10
2.1.1 Job description	11
2.1.2 Job specification.....	13
2.2 Job analysis process.....	14
2.3 Methods of job analysis.....	16
2.3.1 Conventional procedures.....	16

2.3.2	Standardized instruments.....	18
2.4	Uses of job analysis information.....	22
2.5	A basic job analysis checklist.....	25
2.6	Challenges of job analysis.....	26

Chapter Three: RESEARCH METHODOLOGY

3.1	Research design.....	27
3.2	Data collection	27
3.3	Data analysis and presentation.....	28

Chapter Four: DATA ANALYSIS AND INTERPREPATION

4.1	Introduction.....	29
4.2	Interpretation.....	29

Chapter Five: SUMMARY, CONCLUSION, RECOMMENDATION AND SUGGESTION FOR FURTHER STUDIES

5.1	Introduction.....	40
5.2	Summary.....	40
5.3	Conclusion.....	41
5.4	Recommendation	41
5.5	Limitation of the study.....	42
5.6	Suggestion for further study	42

	References.....	44
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Appendix

i	Letter to respondents
ii	Questionnaire
iii	List of the target population

LIST OF TABLES AND FIGURES

- Table 4.1 Response according to Gender
- Table 4.2 Analysis of job descriptions of respondents
- Table 4.3 Analysis on academic qualifications
- Table 4.4 Analysis of the length of service
- Table 4.5 The information / data used
- Table 4.6 Activities in which job analysis is applicable
- Figure 4.1 Contribution of job analysis to the evaluation of the organization's performance generally

LIST OF ACRONYMS

F. D	-	Forest Department
KEFRI	-	Kenya Forestry Research Institute
FRAC	-	Forestry Research Advisory Committee
NGO	-	Non-Governmental Organization
MOF	-	Ministry of Finance
RAC	-	Research Advisory Committee
ICRAF	-	International Centre for Research in Agro forestry
IPGRI	-	International Plant Genetic Resources Institute
NMK	-	National Museums of Kenya
KARI	-	Kenya Agricultural Research Institute
KWS	-	Kenya Wildlife Service
IUCN	-	International Union for Conservation and Nature
KEPHIS	-	Kenya Plant Health Inspectorate Service
JD	-	Job Description
JS	-	Job Specification
JA	-	Job Analysis
CIT	-	Critical Incident Technique
F-JAS	-	The Fleishman Job Analysis System
FJA	-	Functional Job Analysis
PAQ	-	Position Analysis Questionnaire
MPDQ	-	Management Position Description Questionnaire
KSAs	-	Knowledge, Skills and Abilities

CHAPTER ONE: INTRODUCTION

1.1 Background

Job analysis as a human resource management technique was developed around 1900 and became one of the tools with which managers understood and directed organizations. Early writers on job analysis like Gulick, Urwick, and Taylor focused their writing on Fayol's principles on the purpose of the job. But this early interest in job analysis disappeared as the human relations movement focused on other issues. It was not until the 1960s that psychologists and other behavioral scientists rediscovered jobs as a focus of study in organizations. All work organizations can be thought of as networks of jobs. These Networks may be relatively rigid or flexible, depending on the extent to which the boundaries between jobs are adapted to meet changing conditions. Jobs are fundamental to organizations. They are the principal vehicles for the allocation of tasks, duties and roles to the various personnel employed by the organization (Burns & Stalker, 1961). The dominant rationale for job design has been the need to achieve optimum output. This is the rationale of scientific management in which human work and effort is seen in terms of its relationship to machines and the systems created for them (Taylor & Davis, 1979).

An organization with the greatest long-term interest in job analysis has been the United States Department of Labor (DOL). The United States Employment Service (USES) of the DOL's Training and Employment Administration has developed job analysis procedures and instruments over many years. These procedures probably represent the strongest single influence on job analysis practice in the United States. The DOL's Guide for analyzing jobs and handbook for analyzing jobs show the development of job analysis procedures over almost 50 years (U.S Government printing office,1946). The Department

of Labor (DOL) has led in the development of what is often called the conventional approach to job analysis (U.S. Department of labor, 1972).

1.1.1 Human resource management

The root of people management and therefore of human resource management (HRM) lie deep in the past. Just as the tasks that have to be done in modern organizations are allocated to different jobs and the people who perform those jobs, human in ancient societies divided work between themselves. Social customs on the other hand determined separate roles and tasks for male and female. The sub division of work was done so that specific tasks or jobs are allocated to individuals deemed most suitable on the basis of skill, experience or cultural traditions (Graham and Bennett, 1998; Cole, 1991)

The modern view of HRM first gained prominence in 1981 with its introduction on the prestigious MBA course at Harvard Business School. The reasons why HRM have attracted attention particularly from senior managers in the recent years from a strategic viewpoint has been identified as; HRM offers a broader range of solutions for complex organizational problems, it ensures that an organization's people are considered as well as its financial and technological resources when objectives are set or capabilities assessed. It forces the explicit consideration of the individuals who implement and comprise the strategy and two-way links are encouraged between the formulation of strategy and its human resource implications. HRM has further been defined as ...the element of managerial work which is concerned with acquiring, developing and dispensing with the efforts, skills and capabilities of an organization's workforce and maintaining organizational relationships within which these human resources can be

utilized to enable the organization to continue into the future within the social, political and economic context in which it exists (Wayne, 1991)

According to Nzuve (1997) organizations vary both in size and structure. The Human resource functions are universal though they may be performed differently by different people in the organization. There are however activities that can be found in almost all HR departments in various organizations. The following is a summary of HR functions: job analysis and design where the employee's skills, abilities and motives to perform the job are matched to the job's requirements; recruitment and selection as employees contribute to a great degree, the effectiveness of an organization. Without a high-quality labor force, an organization is destined to have mediocre performance; Training and Development is another HR function which is very important to organization, in that, the growth of an organization is closely related to the development of its human resources. It is during the appraisal process that employees become aware of any performance deficiencies they may have and are informed of what they must do to improve their performance and thus become promotable. Compensation is a technique for evaluating the financial worth of the job and other issues pertaining to the design of pay systems are handled by HR managers. A newer area of concern to both managers and employees today is Health and Safety due to accidents, injuries and medical expenses caused by occupational diseases. Labor relations, labor unions exert a powerful influence on employers and help shape the HR policies and programs for union employees (McCormick, 1979).

1.1.2 Job Analysis

Job analysis generally refers to an analytical process involving gathering, analyzing, sorting and re-assembling facts into whatever consistent format chosen. These facts about a job are obtained from jobholders, colleagues or team mates and the job holder's managers. It is not a matter of obtaining opinions or making judgments. What goes into the job description should be what actually happens and not what anybody would like to think happens or what they feel people should like to make it happen. Thus judgmental statements such as "carries out the highly skilled work of ..." are avoided. It is the process of defining the work, activities, tasks, products, or processes performed by or produced by an employee(s). Organizational analysis of a job is to determine the responsibilities inherent in the position as well as the qualifications needed to fulfill its responsibilities. Job analysis is essential when recruiting in order to locate an individual having the requisite capabilities and education (Biddle, 1978; Bemis, 1983).

The various fundamental principles concerning jobs and the process of analyzing them have been identified as: all jobs can be analyzed and recorded, job analysis can enhance communication, the process can be clear enough so that employees and employers can understand and contribute to the process, the process can be designed so that all major human resource decisions can be based on the resulting data. Skill, knowledge and ability can be defined in operational terms, job analysis based on observable behaviors and work products contributes to efficient human resources management and nearly everything that needs to be written to explain the activities of a job is already written (Kearney, Thomas and Kuhn, 1972).

1.1.3 The Kenya Forestry Research Institute (KEFRI)

Kenya Forestry Research Institute was established in 1986 through an act of parliament under the science and technology Act, Chapter 250. The mandate of KEFRI is to conduct research in forestry, to liaise with other organizations and institutions of higher learning in training and on matters of forestry research, to coordinate with other research bodies within and outside Kenya carrying out similar research, document and disseminate research findings. Research efforts have been directed towards solving problems related to increasing scarcity of wood products and related services, reduced agricultural production due to declining soil fertility due to soil erosion, decline in rainfall due to destruction of catchments and environmental degradation especially in dry areas. Due to diverse research activities, the institute collaborates with various other institutions in the field of forestry research. These include the Forest Department (FD), International Centre for Research in Agroforestry (ICRAF), International Union for Conservation and Nature (IUCN), National Museums of Kenya (NMK), Kenya Agricultural Research Institute (KARI), Moi University, Kenya plant inspection service (KEPHIS) and Kenya Wildlife Service (KWS) among others.

The Mission statement is to contribute towards enhancing the social and economic welfare of Kenyans by conducting user-oriented research in forestry, generating and disseminating technologies needed to improve the development, management and conservation of forest and allied natural resources. The Objectives include, to identify management and research problems and opportunities that would guide in formulating forestry research programs, to advice and facilitate production of high quality seeds for

establishing forests and trees which are productive and adopt better to local conditions, to increase productivity of plantations through improved knowledge of species adaptability, spacing, weeding, nutrition, pruning, thinning and harvesting, to improve knowledge on natural forests in order to ensure their sustainable management and to maintain their genetic diversity, to improve knowledge on woodlands in order to ensure their sustained management and conservation on biological diversity, to improve knowledge on farm forestry and to enable the forestry extension services to support and build local initiatives in farm forestry and tree management by the farming communities, to develop and improve knowledge on utilization of wood and non-wood forest products, to monitor and develop control methods for pest, diseases and fire in collaboration with other interested parties in plantations, natural forests and farms, in order to minimize damage, to strengthen research capacity through training and by improving linkages with other research institutions and to generate, document and disseminate scientific information.

The KEFRI Organization structure has various levels of operation and management. The top level comprises of the KEFRI Board of management which is responsible for research and management policies. The Director, who is responsible for the overall operation of KEFRI, assisted by two Deputy Directors; one responsible for research and development (R&D) and the other for finance and administration (F&A). The deputy Director (R &D) oversees five core research programs and coordination of projects implementation, Networks and dissemination of research results. The Deputy Director (F&A) coordinates all matters pertaining to human resources, finance, supplies, administration and physical planning. The Corporate and Public relations (C&PR) and

the Internal Audit units are under the Director's office. KEFRI has 951 staff consisting of research scientists, technologist, foresters, administrators and other support staff (KEFRI Strategic Plan, 2005- 2010).

1.2 Statement of the problem

Job analysis is an important human resource management tool as its products of job description and job specification help the employees to understand their duties and responsibilities well, at the same time the skills required to perform the duties will be clearly outlined. On the other hand conducting job analysis helps the organization to clearly design the organizational structure. This implies that through job study the organization is able to defined positions, hire suitable staff to fill the positions, design proper workflows, establish reporting relationships, identify physical work environment, assist in identifying training needs, deployment of staff among other uses of job analysis.

State corporation were created in the early 1960s to help create wealth and to improve the standards of living of Kenyans. These Corporations have received as much good praise in the immediate post independence period as potential instruments of national, economic and social development as they have received bad press from the 1990's. They have been criticized not only on the basis of their record of performance but also for the notoriously inefficiency. Specific problems associated with state/public corporations include; poor economic performance, overstaffing, inefficiency, incompetent staff, poor organizational structures and mismanagement. It is also true that state corporations are victims of circumstances beyond their control. Organizational survival and social responsibility take

an upper hand rather than profitability, efficient service delivery, sustainability and growth which should be the first priority of the top management (Kangoro, 1998).

KEFRI as one of the state corporations established to undertake research in forestry is not except from some of the above shortcomings. It has a large workforce of between Nine hundred and one thousand staff, with varying levels of academic and professional qualifications carrying out duties/tasks ranging from highly skilled to none skilled labor. However, in the recent past, a good number of highly skilled staff has left the organization for various reasons including poor remuneration, lack of timely upward mobility; lack of recognition of achievement, among others a review on research program and Management (Price water House coopers, 1997, June).

In relation to the above outlined shortcomings, there is little or no literature available to the knowledge of the researcher on local studies relating to the application of job analysis in state corporations KEFRI inclusive, despite the importance associated to this human resource management tool which contributes greatly to the achievement of organizational objectives /mandate. The need to fill this gap is the primary purpose for the development of this study. This research also aims at answering the question, if the past findings on job analysis are relevant and applicable to state corporations.

1.3 Objective of the study

The objective of this study is to determine the extent to which job analysis is applied as a human resource management tool in KEFRI in pursuant of the achievement of her set targets.

1.4 Significance of the study

This study will assist the KEFRI management team to understand the importance of Job analysis as a human resource management tool, which contributes positively to the achievement of set targets and obligations. The findings of this study are expected to provide managers of public organizations with insight into the benefits of using Job analysis as a human resources management technique for human resource planning, evaluating work environment, working Tools and fixing staff remuneration in relations to the importance of the positions held in the organization.

The findings will also attract other researchers to venture into strategies that improve human resources management that have not been studied in this context. It is also hoped that this study would help reiterate the fact that local environment constraints, though a limiting factor as far as attaining world class status performance is concerned, do not hinder the application of Job analysis as a human resource management tool in public organizations. The study will provide information to potential scholars and researchers on the level of applicability of job analysis in KEFRI a public organization in Kenya. This will expand the existing knowledge associated with job analysis and identify areas of further study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Organization Roles

For an organizational role to exist and to be meaningful to people, it must incorporate; verifiable objectives, a clear idea of the major duties or activities involved and understood area of discretion or authority, so that persons occupying or filling the roles know what is expected to be done to accomplish set targets. It is on the basis of these roles that an organizational structure is designed to clarify who is to do what, who is responsible for what results, to remove obstacles to performance caused by confusion and uncertainty in assignments and to assist in decision making and communications networks reflecting and supporting organizational objectives (Nzuve , 2007).

To select a candidate to fill a position requires a clear understanding of the nature and purpose of the position which is to be filled. An objective analysis of the position requirement must be made and as far as possible, the job must be designed to meet organizational and individual needs. In addition, positions must be evaluated and compared so that the incumbents can be treated fairly and equitably. Other factors to be considered are technical, human, conceptual and design skills, which vary with the level in the organizational hierarchy and personal characteristics (Clifford,1982)

According to Koontz & Weihrich, (1988) in identifying job requirements, the following questions must be answered; what has to be done in the job? How is it to be done? What background knowledge, attitudes and skills are required? Can it be done differently? If so, what are the new requirements? To find answers to these and similar questions, jobs

must be analyzed so that individuals feel good about their work. This requires an appropriate job structure in terms of content, function and relationships.

Job analysis is therefore used to match tasks and employees at every level in an organization to do their jobs effectively. Job analysis can enhance communication by answering employees' questions that are occasionally asked like what do you want me to do. Job analysis process can accommodate change, in that; data about jobs that are out of date are periodically reviewed by employers and revised to reflect the changes which occur over time. Quality job analysis data can and should contribute greatly to performance evaluation where an audit trail on the critical tasks of the job is carried out; Compensation decisions require answers on what skills are required to perform jobs at various levels depending on skill levels, where jobs that require higher skills usually receive higher levels of compensation; a job analysis is an essential element to the development of an efficient training program, serving as the basis for the training needs analysis which is the first step in developing training programs and on the other hand job analysis is essential to good workforce planning and utilization (Gilpatrick et al; 1971, and Manese, 1988)

2.1.1 Job Description.

In organizations that engage fully in human resource planning, there will be on going work dedicated to producing and maintaining job descriptions and person specification. Job description is a document which outlines the elements of the job like: job title, reporting structure, purpose of the job, major duties, what the job holder is meant to

achieve and performance standards (Jones and DeCottis, 1969). Job description clarifies work functions, reporting relationships and helping employees understand their jobs. Job descriptions aid in maintaining a consistent salary structure. Performance evaluations may be based on job descriptions. Job description as one of the products of job analysis and like other products and activities of the human resources function must be useful to both line managers and the employees and be seen to contribute to efficiency and profit or they will fail in their purpose (Price, 2004).

According to Graham & Bennet (1998) Job description is a broad statement of the purpose, scope, duties and responsibilities of a particular job. This document is basically descriptive in nature and constitutes a record of existing and pertinent job facts. These facts must be organized in some fashion/format in order to be usable as follows: job identification, which includes such information as job title, alternative titles, department, division, plant and code number for the job; job summary which has two purposes: to provide a short definition that will be useful as additional identification information when the job title is not sufficient and to serve as a summary to orient the reader towards an understanding of detailed information; duties performed section, is the heart of the job description and is the most difficult to write properly because it is supposed to tell what is being done, how it is done and the purpose behind each duty; supervision given and received, talks of the titles of jobs that are immediately over and under this job; relation to other jobs, is in relation to other jobs vertically and horizontally; machines, tools, and materials section lists and defines each major type, giving trade names when necessary; working conditions, indicate conditions such as hot, cold, dry, dusty, oily, noisy and so

on; definitions of unusual terms and finally comments that add to and clarify the afore said (Hinrichs, 1964).

2.1.2 Job Specification

Job specification is a document that outlines the skills and qualities a person would need to have in order to be able to do the tasks on the job description (Craig, 1976; Arvey, 1977). Following the above line of thought, job analysis can be justified on many grounds as it clarifies posts for which new recruits are sought. This produces job description which provides essential evidence for selection interview and enables personnel or role specifications to be drawn up for the purpose of selection or training. Equally it provides the basic material on which performance assessment can be based and essentially a prerequisite for any analytical attempt at job evaluation (Fowler, 1997).

According to Price (2004) there is a checklist of seven point plan that is commonly used for preparing personnel specifications. ns represent the demands of the job translated into human terms (Schwab, 1980). Personnel specification list ‘essential’ criteria which must be satisfied and other criteria which rule out certain people from being able to do the job (Zerga, 1943). Job analysis is used to determine the relevant knowledge, skills and abilities (KSAs) or other employee specifications needed for effective performance on the job. There are unique aspects associated with any one task-based on employee specifications methods. Most of such methods incorporate the following sequential steps: Step 1, Identifying job tasks/work behaviors. This stage is crucial because it serves as the foundation from which KASs are developed and selection measures are produced. Step 2, Rating job task/work behavior. This step isolates the essential job tasks that compose

the job content domain. Step 3, Specifying KSAs necessary for successful job performance. The importance of producing accurate and complete KASs statements cannot be overemphasized. Panelist should have a clear understanding of what is meant by knowledge, skills and abilities. Knowledge here means a body of information, usually of a factual or procedural nature, that makes for successful performance of a task, Skill: refers to an individual's level of proficiency or competency in performing a specific task. Level of competency is often expressed in numerical terms. Ability which refers to a more general, enduring trait or capability an individual possesses when they first start performing a task. Step 4. Rating the importance of identified KASs. Step 5. Identifying other employee specifications necessary for successful job performance like physical demand, worker traits. Step 6. Linking the relevant knowledge, skills and abilities and to other employee (Wayne 1991; Fleishman, 1992; Biddle, 1978).

2.2 Job analysis process.

Job analysis starts with a decision on the types of Job Descriptors to be used. These descriptors include; Worker Functions (the relationship of the worker to data, people and things), Work Fields (the techniques used to complete the tasks of the job that include the machines, tools, equipment, and work aids that are used in the job); Materials, Products, Subject Matter, and Services; worker traits (the aptitudes, educational and vocational training and personal traits required of the worker); physical demand (job requirements such as strength, observation and walking). These descriptors also include the physical environment of the work (Washington, D.C.: U.S. Government Printing Office, 1972).

The unit of analysis in this study is the job. A job can be analyzed at different levels. The lowest level of analysis is employee attributes which include knowledge, skills and abilities required by the job. The next level up is the element. An element is often considered the smallest division of work activity. The next level is the task, a discrete unit of work performed by an individual. A task is a more independent unit of analysis as it consists of a sequence of activities that completes a work assignment. When sufficient tasks accumulate to justify the employment of a worker, a position exists. There are as many positions as employees in an organization (Graham and Bennett, 1982).

According to Alice Price (2004) there are six steps to be followed in carrying out a job analysis. The steps are outlined as follows: Step 1, Decide how you will use the information, since this will determine the data you collect and how you will collect them. Step 2, Review relevant background information such as organization charts to get the general view of the division of labor, process charts show the work flow and job descriptions. Step 3, Select representative positions to represent similar jobs. Step 4, Actual analysis of the job by collecting data on job activities; require employee behaviors, working conditions, human traits and abilities needed. Step 5, Verify the job analysis information with the worker performing the job and with his or her immediate supervisor to confirm that the information is factually correct and complete. Step 6, Finally develop a job description and job specification (Bellak, 1983; Clifford, 1982)

2.3 Methods of job analysis

After deciding on job descriptors and the level of analysis, the analyst must decide which method is to be used to collect job information. There are a number of methods of

obtaining job information including Conventional job analysis programs and standardized instruments like Position Analysis Questionnaire, Management Position Description Questionnaire, the Critical Incident Technique, Functional Job Analysis, the Fleishman Job analysis System and the Task inventory method. It will however be kept in mind that these job analysis methods differ in descriptors, levels of analysis and on methods of collecting, analyzing and presenting data (Marcus, 1981; Koontz and Weihrich,1988; Clifford, 1994)

2.3.1 Conventional Procedures

Conventional job analysis programs typically involve collecting job information by observing and or interviewing job incumbents. Then job descriptions are prepared in essay form. Much of the conventional approach comes from the long experience of the United States Employment Service in analyzing jobs. The original job analysis formula of the United States Department of labor (DOL) provided for obtaining work activities. The DOL's 1972 revision of this schedule requires the job title, job summary and description of tasks. It treats work activities as the primary job descriptor. As a consequence, the use of the conventional approach by private organizations focuses largely on work activities rather than on descriptors used in the DOL job analysis schedule (Washington, D.C.: U.S. Government Printing Office, 1972).

As job evaluation purports to distinguish jobs on the importance of work activities to the employing organization, this descriptor seems primary. Using the DOL's original job analysis formula (1946) which outlined among others the following descriptors, what the worker does, how the worker does it and why the worker does it. This may provide

reasonable assurance that all the work activities are covered. One of the functions of this model is to require the analyst to seek out the purpose of the work. In some private use of the conventional approach, worker attributes required by the job are also sought. Ratings of education, training and experience required may be obtained, as well as information on contacts required, report writing, decisions and supervision. In part, these categories represent worker attributes and in part they represent a search for specific work activities. Some conventional job analysis programs ask job incumbents to complete a preliminary questionnaire describing their jobs. The purpose is to provide the analyst with a first draft of the job information needed. It is also meant to be a first step in obtaining incumbent and supervisor approval of the final job description. Of course, not all employees enjoy filling out questionnaires. Also, employees vary in verbal skills and may overstate or understate their work activities. Usually, the job analyst follows up the questionnaire by interviewing the employee and observing his or her job (Washington, D.C.: U.S. Government Printing Office, 1972).

2.3.2 Standardized Instruments

Standardized Instruments are instruments that have been previously tested and utilized which increases their general validity. They have been found to give similar results from different organizational setups. They include Position Analysis Questionnaire, Management Position Description Questionnaire, Task inventory method, Functional Job Analysis, Fleishman Job analysis System and the Critical Incident Technique. (McCormick and associates, 1969)

The Position Analysis Questionnaire (PAQ) is a Quantitative instrument developed by McCormick and associates at Purdue University (1969). The PAQ is a structured job analysis questionnaire containing 194 items called job elements. These elements are worker-oriented; using the terminology of the Dictionary of Occupational TDOL's 1972 job analysis formula would be referred to as worker behaviors. The items are organized into six divisions: information input, mental processes, work output (physical activities and tools), relationships with others, job context (the physical and social environment) and other job characteristics (such as pace and structure). Each job element is rated on six scales: extent of use, importance, time, possibility of occurrence, applicability, and a special code for certain Jobs (Richardson, 1971).

The PAQ is usually completed by job analysts or supervisors. In some instances managerial, professional, or other white-collar job incumbents fill out the instrument. The reason for such limitations is that the reading requirements of the method are at least at the college-graduate level. Data from the PAQ can be analyzed in several ways. For a specific job, individual ratings can be averaged to yield the relative importance of emphasis on various job elements and the results can be summarized as a job description. The elements can also be clustered into a profile rating on a large number of job dimensions to permit comparison of this job with others. Estimates of employee aptitude requirements can be made. Job evaluation points can be estimated from the items related to pay. Finally, an occupational prestige score can be computed. Analysts can have PAQ data computer-analyzed by sending the completed questionnaire to PAQ Services. The PAQ has been used for job evaluation, selection, performance appraisal, assessment-center development, determination of job similarity, development of job families,

vocational counseling, determination of training needs, and job design. The PAQ has been shown to have a respectable level of reliability. An analysis of 92 jobs by two independent groups yielded a reliability coefficient of 0.79 (Jeanneret, McCormick and Mecham, 1972).

The Management Position Description Questionnaire (MPDQ) is designed for management positions and uses a checklist method to analyze jobs. The factors in MPDQ are related to the work and responsibilities of managers. The common factors in manager's job would include: Product/service, market and Financial planning, coordination of other organizational units and personnel, product and service responsibility, public and customer relations, advanced consultations, autonomy of action, approval of Financial commitment, staff services, supervision, complexity and stress, advanced Financial responsibility and broad personnel responsibility. These factors will depend on the organization and level of managerial position. However, they can be used to determine training needs of those individuals who are about to move into managerial positions as well as for setting compensation levels for managerial positions (Gomez-Mejia, Page and Tornow, 1982)

The Task inventory method emphasizes on work activities. In this approach a list of tasks pertinent to a group of jobs is developed. Then the tasks involved in the job under study are rated on a number of scales by incumbents or supervisors. Finally the ratings are manipulated statistically, usually by computer and a quantitative job analysis is developed. Actually any method of job analysis, even narrative job descriptions, could be termed a task inventory if an analysis of the data can provide quantitative information

from appropriate scales. One example of this type of job analysis is the Comprehensive Occupational Data Analysis Program (CODAP). Undoubtedly the best-known task inventory is the one that has been developed over many years by Raymond E. Christal and his associates for the United States Air Force. The heart of the program is a list of tasks involved in a particular job. After the task list has been prepared by incumbents, supervisors or experts, incumbents are asked to indicate whether they perform each of the tasks. They are then asked to indicate on a scale the relative amount of time spent in performing each particular task. Other ratings are also obtained such as training time required and criticality of performance (Christal and Weissmuller, 1976).

The method of Functional Job Analysis (FJA) is usually thought of in terms of the familiar data, people, things and hierarchies used in the Dictionary of Occupational Titles developed by Sidney A. Fine and associates, this comprehensive approach has five components; identification of purposes, goals and objectives; identification and description of tasks; analysis of tasks on seven scales, including three worker-function scales (one each for data, people, and things); development of performance standards and development of training content. FJA data are developed by trained job analysts from background materials, interviews with workers and supervisors and observation. The method provides data for job design, selection, training and evaluation and could be used at least partially for most other personnel applications. It has been applied to jobs at every level (Livernash, 1957).

The Fleishman Job analysis System (F-JAS) represents a generic, skill-based approach. Fleishman factor-analyze large data sets to discover a common, minimum set of

knowledge, skills, abilities and others across different jobs. His system of 73 specific scales measure the following broad areas: Cognitive (verbal abilities, idea generation and reasoning abilities); quantitative abilities (memory, perceptual abilities, spatial abilities and attentiveness); psychomotor (manipulative abilities, control movement abilities and reaction time and speed abilities) and physical (physical strength abilities, endurance, flexibility, balance and coordination; visual ability; and auditory and speech abilities) (Fleishman, 1992, Fine and Hutchison, 1974).

The other method that can be used to analysis a job is the Critical Incident Technique (CIT) by John Flanagan who proposed two criteria to define a job activity as critical: it was complete enough to allow someone to make an inference about a job incumbent's performance and it was crucial to either outstanding or poor job performance. When all the critical acts i.e. behaviors in the job are complied, the results provide an accurate portrayal that can focus on both the action of the worker and the context in which the behavior occurs. This is an excellent technique when primary purpose is performance appraisal, training, selection or job design. It is collected through interviews or questionnaires (Jeanneret and McCormick, 1969).

2.4 Uses of job analysis information

According to Clifford (1994) Job analysis is one of the most pervasive tasks of human resource management. Its products- Job description and specification have many and varied uses. Job analysis is therefore meant to establish and document the job relatedness of employment procedures such as training, recruitment and selection, compensation, performance appraisal and many other uses. Training and Development is one of the

areas where Job analysis is applied to establish the skills needed for each of the jobs in the organization. It can also be used in developing training/ needs assessment to identify or develop training content, assessment tests to measure effectiveness of training, equipment to be used in delivering the training and methods of training. Job analysis can be used in compensation to identify or determine skill levels, compensable job factors, work environment (hazards; attention; physical effort), responsibilities (fiscal; supervisory) and required level of education (indirectly related to salary level) (Bemis, 1983).

Recruitment and Selection is an area that greatly benefit from the process of Job analysis where not only the critical tasks are identified but also tasks which require high skill levels. It can be used to identify or develop: job duties that should be included in advertisement of vacant position; appropriate salary level for the position to help determine what salary should be offered to a candidate; minimum requirements (education and or experience) for screening applicant; interview questions; selection tests/instruments (written tests; oral tests; job simulations), applicant appraisal/ evaluation forms and orientation materials for applicants/new hire (Manese and Wilfred, 1988)

Workforce planning and utilization also benefit through the identification of which tasks in a job require the highest skills. Management will be able to use that information to structure jobs. If there are only a few tasks requiring high skill levels, it may be more efficient for the organization to shift those tasks to another job which already requires those skills. This allows the organization to develop specialized jobs and hire employees with an emphasis on those skills. The organization may want to develop employees who

are competent in a variety of areas and will be able to perform a wide variety of tasks. This model approach to job analysis will help the organization document where the specialist are and why, as well as where the generalist are and why. The organization can use the job analysis information for projecting work force needs. By observing how jobs change over time, an organization will be in a better position to predict how jobs are likely to change in the future (Clifford, 1994; Hartmann, 1981).

Performance appraisal rates an employee on characteristics such as dependability and initiative, there is now a tendency towards establishing job goals and appraising the work done towards those goals. In this type of appraisal, a job description is useful in defining the areas in which jobs goals should be established. According to ACAS (2006), appraisals regularly record an assessment of an employee's performance, potential and development needs. The appraisal is an opportunity to take an overall view of work content, loads and volumes, to look back on what has been achieved during the reporting period and agree on objectives for the next period (Fletcher and Williams, 1985) are of the view that the assessment of people is not the only thing that is done when appraising a person's work performance. It also involves judging the worth, qualities or value of something and in a work situation especially it is important that any judgments are fair and are based on objective job related criteria. When appraising people in work situation, they are not only judged but also try to assist them to improve aspects of their performance. Performance appraisal is therefore about giving feedback to the employee, but also involves the appraiser in being both judge and helper to an individual employee. The performance appraisal interview represents the organization's provision of a formal opportunity in which to give feedback and be both judge and helper to that employee.

Induction is another area where job description is very useful, as new employees are each likely to have their own individual learning needs and establishing what these are during the induction process is very important. Starting individual development reviews during the induction period and setting times for individual interviews to review progress regularly is very necessary. However, they should learn certain things about the organization and its culture. Although new employee will learn a great deal in the informal way, it is also a good idea for organizations to try to ensure that they have the opportunity to learn things that will enable them to perform to their best ability. This will mean that the organization will need to: assess what it thinks people need to learn in order for them to do their jobs and to contribute effectively to the organization's strategic objectives, plan opportunities to facilitate learning experiences and evaluate what has worked well, and what has been less successful. For the new employees, a job description is most helpful for orientation purposes (McHenry and Fred, 1983).

Job reengineering is another area where job description is applied. If employers wish to adapt to any special group, such as the physically handicapped, they must usually alter the content of certain jobs. Job analysis provides information that will facilitate the changing of jobs in order to permit their being filled by personnel with special characteristics (Hay, 1950; Jones and Decottis, 1969).

2.5 A basic Job analysis checklist

Price (2004) has identified the following as the basic job analysis items that should be taken into account for a meaningful analysis to be achieved.

Heading	Subject matter
Job identification	Job title, department, grade or level
Relationships	Name or title of immediate boss; number and type(s) of staff job holder is responsible for; Links with other departments
Outputs	What are the end-products or results of the job
Activities	The behaviors or actions of the workers in achieving these outputs.
Performance	Required standards, agreed objectives.
Individual requirements	Abilities, skills, experience, temperament, training, language, etc
Working conditions	The physical and social surroundings of the job such as workspace, working hours, leave entitlement.
Equipment	Computer, machine tools, vehicles etc. Used as an essential part of the job.
Other information	Promotion outlets, training available, transfer opportunities.

Source: Price A. (2004). *Human resource management in a Business context, second edition*, Pg 363.

CHAPTER THREE: RESEARCH METHODOOOGY

3.1 Research Design

This research was a case on the application of Job analysis as a human resource management tool at the Kenya Forestry Research Institute a state corporation. The organization is one among many state corporations that are striving towards attaining world class status in service delivery. KEFRI will serve as a forerunner among state corporations the Kenyan if it adopts this internationally acclaimed human resource management technique. The case was used to offer an insight nuances and challenges that face public organizations when trying to analyses the Jobs. Case studies are more suitable when gathering and organizing information on a particular issue with a view to seeking out patterns or themes in the data (Kothari, 2004).

3.2 Data Collection

Both primary and secondary data was used in the research. The primary data was collected through in-depth interviews especially with the senior management staff and the human resources managers. The secondary source of data was from the organization structure review conducted by Price Water House coopers in 1998, the organizational structure, performance contracts, KEFRI strategic plan 2008/2015, internal memos and minutes of meetings on performance improvement.

3.3 Data Analysis

The data analysis sought to establish how KEFRI applied job analysis as a human resource management tool. The analysis also constituted identifying the various challenges the corporation faced in its endeavor to fully adopt job analysis philosophy in its management and the benefits of adopting job analysis approach. This being a qualitative study, qualitative data analysis was used. This method constitutes content analysis which was used to identify and extract the key themes, concepts and arguments. This was best suited for the kind of data that was collected. Content analysis has been successfully used to conduct similar qualitative studies in the past include Thiga, (1999); Njau, (2000) and Koske, (2003).

CHAPTER FOUR: ANALYSIS, FINDINGS AND RECOMMENDATIONS

4.1 Introduction

This chapter gives a detailed analysis of the data and presents the findings. The target population consisted of 35 senior employees of the state corporation. Out of this targeted group, 27 respondents completed the questionnaire constituting about 77%. These were considered a reasonable response and the findings are drawn on the basis of these data. The data has been analyzed and presented in form of frequency tables, percentages and charts.

4.2. Demographic Data

4.2.1 Gender.

The researcher sought to find out the gender distribution in senior management positions in the organization.

Table 4.1 Response according to Gender

Gender	Frequency (n)	Frequency (%)
Male	20	74.1
Female	7	25.9
Total	27	100.0

Source: Author

The results showed that majority (74 %) of the respondents in senior management were male followed by female (26%) Table 4.1. This implied that the organization has yet to reach the target of government policy of appointing 30% female employees to senior management positions.

4.2.2: Job designations

The researcher wanted to establish the designations of respondents in order to understand the academic disciplines of managers in the organization.

Table 4.2: Analysis of job designations of respondents

Designation	Frequency (n)	Frequency (%)
Researcher	16	59.3
Administrators	7	25.9
Accountants	4	14.8
Total	27	100

Source: Author

The findings showed that the majority (59%) of respondents were research scientists, followed by administrators (25.9%) and accountants (14.8%) Table 4.2. This suggested that research scientist hold most of the senior management positions. This was attributed to the fact that the Institute is a research-based organization.

4.2.3 Academic qualification

The researcher sought to establish the academic qualifications of the officers heading various departments and divisions in the organization.

Table 4. 3: Analysis on academic qualifications.

Qualification	Frequency (n)	Frequency (%)
PhD	10	37.0
Masters	8	29.6
Bachelors	6	22.2
Diploma	2	7.4
Certificate	1	3.7
Total	27	100.0

Source: Author

The researcher found out that, higher proportion (37%) of respondents were PhD degree holders with least having certificate qualifications (4%) Table 4.3. This implied that most departments and divisions were headed by well-trained personnel, who had capabilities to conduct and administer the human resource management technique of job analysis without much difficult.

4.2.3.1 Other professional qualifications

It was further established that the respondents held other professional qualifications like Certified public accountants of Kenya (CPA-K), Public Certified Secretaries of Kenya (CPS-K), Diploma in Business Management and certificate in scientific writing among others.

This clearly shows that KEFRI was well endowed with very qualified staff in many fields, which was an advantage for them to understand the principles of conducting job analysis.

4.2.4 Years of service

The researcher wanted to establish the number of years the respondents had worked in the organization, so as to rate their understanding of the activities carried out in the organization and the best suited personnel to handle them effectively.

Table 4.4: Analysis of the length of service

Years in service	Total (n)	Frequency (%)
21 and over	16	59.3
16 – 20	7	25.9
11- 15	1	11.1
6 – 10	3	3.7
Total	27	100

Source: Author

The findings revealed that most (59%) of the respondents had work experience of 21 years and over with the least about 4% having working experience of 6 -10 years (Table 4). This meant that most of the respondents understood well the activities carried out at various positions in the organization and the knowledge, skills and abilities required in order to carry out the duties effectively. This may be seen as an advantage to the organization because they could use their experiences to define tasks and match them with the person's specification with little difficulties.

4.3 Conducting Job Analysis

In this section the researcher sought to establish how job analysis was actually carried out and applied in the organization.

4.3.1 Conducting of Job analysis

Table 4.5. The information/ data used

Job descriptors	I don't know	Less strict	Not strict	Strict	Very strict	Mean score
Relationship of the Worker to data, people and things	3	5	10	5	4	3.07
Aptitudes, educational and vocational training and personal traits required of the work	-	3	10	9	5	3.6
Machines, tools, equipment and work aids that are used in the job	-	4	7	5	3	2.37
Strength, observation and walking	-	1	10	1	3	1.14
Physical environment	-	4	6	6	2	2.2
Average Mean Score						2.58

Source: Author

The researcher wanted to establish how the job information were applied in the preparation of job descriptions and job specifications

The research findings showed that with a mean score of 3.6 for aptitudes, educational and vocational training and personal traits required of the work and that of relationship of the worker to data, people and things implied that these descriptors were strictly applied in the preparation of job description and specifications. Whereas the use of machines, tools, equipment and work aids had a mean score of 2.37, implying that they were less strictly applied. On the other hand the results showed that Job descriptors such as strength, observation and walking were not considered at all when conducting job analysis at a mean score of 1.14. Whereas, on physical environment at a mean score of 2.2, it was less strictly applied. Overall, the average mean score for job descriptors was 2.58, which was approximately 3, implying that various elements of job analysis were not strictly applied (Table 4.5).

4.3.2: Usefulness of job description and job specification.

The researcher wanted to establish whether job analysis was considered useful in the various human resource management functions.

Table 4.6: Activities in which job analysis is applicable

Activity	Not useful	Less useful	Somehow useful	Useful	Very useful	Mean score
Training	-	4	10	8	5	3.51
Recruitment & selection	-	-	5	17	5	4.0
Performance evaluation	-	1	6	16	4	3.85
Remuneration/ rewards	2	7	10	5	3	3.0
Workforce, planning & utilization	1	3	8	8	4	3.07
Promotions	2	4	9	6	6	3.37
Deployment	9	8	3	3	4	2.44
Average mean score						3.32

Source: Author

The findings showed that at a mean score of approximately 4, Job analysis was found useful while undertaking performance evaluation, training and recruitment and selection. In addition, a mean score of approximately 3 showed that job analysis was useful in remuneration / rewards, Workforce planning, utilization and promotions. On the other hand, a mean score of 2.44 showed that job analysis was less useful while carrying out

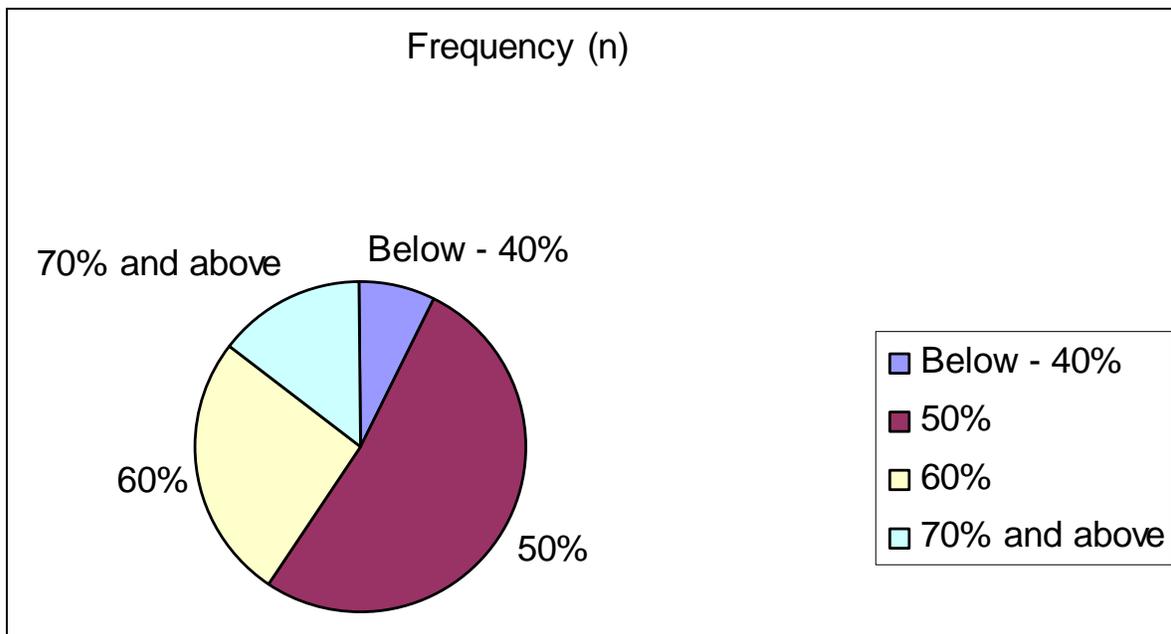
deployment of staff (Table 4.6) Overall, an average mean score of 3.32 indicated that job analysis was somehow or moderately applied when carrying out the various human resource functions.

4.4: Job analysis Contribution

The researcher sought to establish whether job analysis had contributed positively to the overall value of the organization

4.4.1: Contribution of job analysis to the evaluation of the organization's performance generally.

The researcher sought to find out whether the application of job analysis had contributed to the value of the organization generally.



Source: Author

Figure 4.1: Contribution of job description and job specification on performance evaluation

The findings showed that 51.9%, 25.9%, 14.8% and 7.4% attested that job analysis had contributed to about 50%, 60%, over 70% and below 40% of the overall performance of the organization respectively (Figure 4.1). In summation the findings showed that about 92% of the respondents were in agreement that job analysis had contributed positively to the general performance of the organization at 50% and above.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The objective of this study was to determine the extent to which KEFRI applied job analysis as a human resource management tool in the various human resource functions of staffing, fixing remuneration, performance evaluation, training and development among other uses.

5.2 Summary

The objective of the study was to determine the extent to which job analysis was applied as a human resource management tool in KEFRI in pursuant of the achievement of her set targets. The target population consisted of 35 senior managers the state corporation. Considering the demographic characteristics of the respondents, the study established that a majority of senior managers were male. The respondents were from the two departments of Finance and Administration and that of Research and Development. In relation to academic qualifications, the results showed that a majority of respondents held PhD degrees. This was associated to the fact that KEFRI is a research organization. Regarding the number of years in service, results showed that a majority had worked in the organization for 16 years and above. This implied that the majority of the respondents had enough experience to give acceptable responses to the study questions.

Regarding the information/ data used in the analysis of jobs, the findings showed that not all job information were used when conducting job analysis, this includes workforce, planning and utilization, deployment of staff, remuneration / rewards among others. In regard to activities to which job analysis was useful, it was established that job analysis was moderately useful to most human resource activities even though some aspects of job analysis were not adequately taken into consideration when conducting the job analysis like identifying physical work environment, designing work relationships, identifying training needs among others. In relation to the contribution of job analysis to the overall performance of the organization, the findings indicated that it had contributed significantly to performance improvement.

5.3 Conclusion

It was concluded that job analysis was not adequately conducted and applied in the organization so as to achieve efficiency in workflow, process design, staffing and as a performance improvement strategy.

5.4 Recommendation

The researcher recommends that state corporation adopt job analysis as a strategy of managing the human resources so that all acquisitions of staff and creation of positions are done due to necessity. Management of state corporations should strive to identify the benefits associated to studying jobs within their organizations. Job analysis should be conducted by trained personnel from in the organization or by management consultants for proper analysis that will benefit both the individuals and the organization. This will

help reduce the practices of creating positions that are not required and hiring persons that are not competent into the organization.

It is further recommended that there should be periodical review of jobs to establish whether they are in line with the changing work environment and practices. This will enable state corporations to rip the benefits associated to this technique which has been around from as early as the 1900 and has undergone improvement through constant studies. This will only be possible if top management will take profitability, efficient service delivery, sustainability and growth of their organizations as top priority and reduce political interference in the management of public organizations among other external factors.

5.5 Limitation of the study

The major limitation of the study was that the target respondents were very busy and some were not willing to complete the questionnaire. This made the researcher to collect fewer completed questionnaires than expected. Despite this limitation, a case study like this one does open up room for discussions that would enable subsequent research in related areas.

5.6 Suggestion for further study

The research study revealed that a large number of respondents considered job analysis as a simple managerial exercise that can be conducted by any officer heading a division or program. It might be interesting to conduct a survey on service organizations focusing on

this aspect. The sample for such a study should include organizations that have carried out job analysis in order to assess the difference. A study of how organizations undertake performance evaluation is important because it takes into account pertinent issues such the organization structure and skills inventory. The study would be aimed at establishing organizations that have benefited from job analysis. Further additional studies should be carried out to establish what other factors contribute to poor performance in public organizations apart from the application of job analysis as a human resource management tool and challenges these organizations face in applying other human resource management techniques.

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Appendix i

LETTER TO RESPONDENTS

INTRODUCTION

Dear participant,

1. The purpose for the development of this questionnaire is purely academic. Whatever idea you express, you are assured that your response will be kept strictly confidential. You are not required to indicate your name.
2. The questionnaire is designed to study job analysis application in KEFRI. The information you provide will help in better understanding of job analysis as a human resource management tool.

INSTRUCTIONS

3. The attached questionnaire has questions asking about the application of job analysis.
4. Think in terms of your everyday experience and put the most appropriate response by ticking () besides the statement, whichever you think is most appropriate according to you.

Thank you

C.O. Momanyi

Appendix ii

QUESTIONNAIRE FORM

Section 1: Introduction

The purpose for the development of this questionnaire is purely academic. The questionnaire is designed to study job analysis application in state corporations. The information you provide will help in better understanding of job analysis as a human resource management tool.

Section 2: Demographic data

1. Gender: Male () Female ()
2. Job designation/Title
3. Tick your highest academic/professional qualification? PHD () Masters ()
Bachelors () Diploma () Certificate () KCSE ()
- 3.1 What other Professional qualifications do you hold?
4. For how long have you worked in KEFRI.....

Section 3: Job analysis

5. How strict are the following job descriptors applied in the preparation of job descriptions and job specifications?

Job descriptors	I don't know=1	Less strict=2	Not strict=3	Strict=4	Very strict=5
Relationship of the Worker to data, people and things					
Machines, tools, equipment and work aids that are used in the job					
Aptitudes, educational and vocational training and personal traits required of the work					
Job requirements such as strength, observation and walking					
Physical environment					

6. How could you rate the application of job description and job specification in the following areas of human resource management in your organization?

Area	Not useful=1	Less useful= 2	Somehow useful=3	Useful =4	Very useful=5
Training					
Recruitment & selection					
Performance evaluation					
Remuneration/ reward					
Workforce planning & utilization					
Deployment					
Organization structure					

Section 4: Job analysis contribution.

7. To what extent could you rate the job analysis contribution to the improvement of your organization? 70% and over () 60% () 50% () below 40% ().

Please check through once again to ensure that you have answered all the questions

Thank you for your cooperation

THE END

Appendix iii

LIST OF OFFICERS TO BE INTERVIEWED

Director-1

Deputy Directors -2

National program coordinators-7

Center Directors-6

Officer In charge of sub centers-8

Heads of division-11