T.C.
YEDİTEPE UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES

AN ANALYSIS OF THE ARMY AVIATION MAINTENANCE PERSONNEL CAREER DEVELOPMENT SYSTEM

By

ERDENIZ UMAN

Submitted to the Institute of Social Sciences
İn partial fulfillment of the requirements fort he degree of
Master of Business Administration

ISTANBUL, 2000

AN ANALYSIS OF THE ARMY AVIATION MAINTENANCE PERSONNEL CAREER DEVELOPMENT SYSTEM

Approval of the Institute of Social Sciences

Approved by:

Dr. Demet VAROĞLU .....

Prof.Dr. Ülkü DİCLE .....

Doç.Dr.Abdulgaffar AĞAOĞLU .....

Date of Approval: 4./3./2000

ABSTRACT

AN ANALYSIS OF THE ARMY AVIATION MAINTENANCE PERSONNEL CAREER DEVELOPMENT SYSTEM

Uman, Erdeniz

Master of Business Administration

Supervisor: Dr. Demet Varoğlu

Istanbul, 2000

In this study, Army Aviation maintenance personnel career development system was analyzed to find out the major factors affecting it, the deficiencies and strengths of it and the opinions of the maintenance personnel about it.

Using the findings of the analyses, some recommendations for the solutions of the problems and deficiencies in the current career development system are given parallel to the latest information available in the Human Resources and Career Development literature.

This study also carries importance because no studies have been conducted on the career development system in Army Aviation Branch before. It may be a useful reference or a starting point for future studies.

This study was conducted on Army Aviation Branch maintenance technicians, who are all Non Commissioned Officers in different ranks and positions. The sample was

selected randomly from three maintenance units in Army Aviation School, located at Güvercinlik, Ankara.

A research model that simulates the relationships between the career development system and the factors–whether individual, organizational or environmental– was prepared and tested through factor, correlation and multi-regression analyses. A questionnaire prepared for this purpose was used in data collection.

The results of the analyses showed that the current career development system had many deficiencies and that it was not functioning effectively. The findings of the research also showed that the sources of the problems encountered in the career development process were the deficiencies of the organization's career development system not the deficiencies of the personnel.

Number of preliminary pages : 12

Number of pages : 134

Number of references : 107

Number of tables : 18

Number of figures : 11

Key words: Army Personnel Career Development, Effectiveness of the Career Development System, Career Development and Organizational Effectiveness.

ÖZET

KARA HAVACILIK SINIFI BAKIM PERSONELİNİN KARİYER GELİŞTİRME SİSTEMİNE AİT BİR İNCELEME

Uman, Erdeniz

İşletme Mastırı

Danışman: Dr. Demet Varoğlu

İstanbul, 2000

Bu çalışmada, Kara Havacılık Sınıfı bakım personelinin Kariyer Geliştirme Sistemi, sistem üzerinde etkisi olan önemli faktörleri tespit etmek, mevcut sistemdeki kuvvetli ve zayıf noktaları belirlemek ve bakım personelinin mevcut kariyer geliştirme sistemi hakkındaki düşüncelerini ortaya koymak maksadıyla analiz edilmiştir.

Yapılan analizlerden elde edilen bulgular kullanılarak, İnsan Kaynakları ve Kariyer Geliştirme ile ilgili literatürde mevcut son bilgiler ışığında mevcut Kariyer Geliştirme Sisteminde karşılaşılan problemler ve eksiklikleri gidermek maksadıyla bazı tavsiyeler ve öneriler yapılmıştır.

Bu çalışma, Kara Havacılık Sınıfı için daha önce bu konuda yapılmış bir çalışma olmaması dolayısıyla ayrıca bir önem taşımaktadır. Bu çalışma, ilerisi için faydalı bir başvuru kaynağı ve başlangıç noktası olacaktır.

Bu çalışma, Kara Havacılık Sınıfına mensup değişik rütbe ve mevkilerdeki Teknisyen Astsubaylar üzerinde gerçekleştirilmiştir. Araştırmada kullanılan örneklem

kitle Kara Havacılık Okulunda mevcut üç değişik bakım ünitesinden rastgele seçilmiştir.

Kariyer Geliştirme Sisteminin kişisel, örgütsel ve gerekse çevresel faktörlerle olan ilişkisini ortaya koymak maksadıyla bir araştırma modeli oluşturularak faktör, korelasyon ve çoklu regresyon analizi gibi çeşitli analizlere tabi tutulmuştur. Bu maksatla bir anket hazırlanarak veri toplamada kullanılmıştır.

Yapılan analizler göstermiştir ki, mevcut kariyer geliştirme sisteminde bir çok eksiklikler vardır ve etkin olarak işlev görmemektedir. Araştırma bulguları ayrıca göstermiştir ki, kariyer geliştirme sürecinde yaşanan problemler ve aksaklıklar personelden değil mevcut kariyer geliştirme sisteminden kaynaklanmaktadır.

Number of preliminary pages : 12

Number of pages : 134

Number of references : 107

Number of tables : 18

Number of figures : 11

Key words: Army Personnel Career Development, Effectiveness of the Career Development System, Career Development and Organizational Effectiveness.

ACKNOWLEDGMENTS

First of all, I would like to express my sincere appreciation to Dr. Demet VAROĞLU for her support, guidance and patience throughout the research.

I have many thanks to Colonel Yüksel OTMAN, and Major M.Fatih OLCAY for their great assistance in conducting the research and for their valuable suggestions.

I would like to thank to Army Aviation School maintenance personnel for their great assistance in conducting the research, to my friends for their helps and contributions to my thesis study.

I also want to offer my sincere thanks to my wife, Gökçem for her unshakable faith in me and her patience throughout my studies.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

ATS : Air Traffic Service

AVIM : Aviation Intermediate Level Maintenance

AVUM : Aviation Unit Level Maintenance

HRM : Human Resource Management

NCO : Non Commissioned Officer

SCCT : Social Cognitive Framework

TLF : Turkish Land Forces

TLFC : Turkish Land Forces Command

CHAPTER 1

1. INTRODUCTION

The requirement for a professional or partially professional army in specific tasks has been increasing rapidly, and it seems it will be a must in the future. Army Aviation Branch is so unique that requires sophisticated equipment and personnel at the same time. Any problem in one of them will result in complete disaster. The preparation of an Aviation Unit for war necessitates a perfect maintenance and supply system. The existence of poor maintenance work and personnel will increase the costs of tasks, which have already been extremely high. As the number of the professional personnel—actually not only the quantity but also the quality increases, the career development issue has been gaining great importance at every stage of the organizational activities.

"Organizations are dependent on the performance of their people, and people are dependent on organizations to provide jobs and career opportunities" (Schein, 1978:1). Thus, one of the most important issues is the preparation and implementation of career development plans that enable the organizations and people match their needs so that both benefit.

"Planning for careers involves the joint consideration of four elements: the individual, the work, the organization, and expected future developments. The hub of organizational career planning concerns is the individual, around whom are issues regarding the work, the organization, and the pattern of change that in turn affect all of these elements and shape the future. However, this concern for individual career development is cast within the context of organizational possibilities and plans." Thus organization needs and future directions have an important bearing on the direction and realization of individual career plans" (Burack and Mathys, 1980:1).

In the Turkish Land Forces (TLF), the roles given to NCOs have changed throughout the time since they had been first introduced to the TLF. They are given more responsibility, more critical duties and naturally more and more training today.

A well-prepared Career Development Program for them is so important that in technical branches like Army Aviation it may be vital. The Army Aviation Branch is unique because it is both an arm and a service branch different from other branches. Aviation combat missions include attack, cavalry (reconnaissance and security), air assault, special operations and air combat. Its combat support missions include: air movement; command, control, and communications; ATS (Air Traffic Service); electronic warfare; combat search and rescue; and aerial mine warfare. Combat service support missions include aerial sustainment, casualty evacuation and aviation maintenance. These roles have been gradually increasing the importance of Aviation Branch, and the need for highly qualified personnel and equipment.

1.1. Statement of the Problem

Although Army Aviation branch is so important and so unique, it is quite vulnerable to the lack of qualified personnel, equipment, and poor maintenance work. The Mission Readiness Degree of the aircraft and the equipment is as crucial as of the personnel's. The success of an Aviation unit is firmly dependent on maintenance work. Thus, the performance of the Army Aviation Maintenance personnel has a great influence over the success of the Aviation units, then over the whole army units during the combat.

In a large organization like army, a member may have some difficulties and barriers to plan and determine his/her career path due to the inflexible rules and procedures; poor career planning and management programs; poor performance evaluation/appraisal systems; poor career counseling systems; poorly trained personnel in the career management field; poorly defined jobs or tasks; inadequate number of opportunities offered to the personnel; and the lack of positive job environment.

The career development system in the army should have a dynamic feature instead of a static one in order to develop its personnel to fulfill the current and future needs of the army. Since rapidly changing environment brings new solutions to the problems

every day, a flexible and rapidly adaptable structure is necessary in career development system. Thus a competency based and a competitive work environment is inevitable. However, the current career development system of Turkish Army is far behind of this objective.

Every career path has its strict rules and procedures that limit its members taking proper decisions and offer just a few choices during the whole work cycle of personnel. This is even worse from the perspective of Non Commissioned Officers (NCOs).

There are not many motivators and a competitive atmosphere for the personnel due to the improper structure of the promotion and reward system. The motivating feature of promotion in ranks is loosing its importance since there are many NCOs in similar situations and positions in the unit, and almost all of them are being promoted when they complete the rank waiting period. In addition to that, since the personnel are normally promoted according to the completion of certain time periods, finding a suitable position for the personnel whose turn comes for promotion is getting difficult.

The personnel feel themselves out of the career development process and do not spend much time thinking of their future career. The uncertainty in the career development of the personnel is increasing time and financial costs due to the decreasing efficiency in personnel usage.

Some of the personnel has been benefiting from the career development opportunities like courses given inside and outside of Turkey, while the others have not since they are not aware of them or do not have enough information or do not meet the basic requirements for the courses.

1.2. The Purpose of the Study

The main purpose of this study is to find out the significant career-related factors that affect the effectiveness of the Career Development System of the Army Aviation Maintenance Personnel.

Another purpose of this study is to prepare a model that will simulate the effects of career-related factors over the effectiveness of the Career Development System of the

Army Aviation maintenance personnel. The model will be used to determine the weaknesses and strengths of the current career development system of Army Aviation maintenance personnel in Turkey.

Finally, this study will bring out the maintenance personnel's judgements and expectations about themselves and the current career development system.

1.3. Methodology

In order to fulfill the previously mentioned objectives, the research model prepared for analyzing the effectiveness of career development system of the maintenance personnel was tested on a sample of 75 Noncommissioned Officers from Army Aviation School in Güvercinlik, Ankara.

When preparing the research model, the main consideration was to use the indicators of an effective career development system that encourages the personnel to develop and provides career development opportunities for the personnel. It was not intended to analyze how personnel plan and develop their careers.

A questionnaire was prepared for data collection, which consists of 48 questions mostly in multiple-choice format.

The data collected from the sample were tested in SPSS Package Program, using Factor Analysis, Reliability Analysis, Multiple Regression Analysis and Oneway Variation Analysis.

1.4. Limitations of the Study

Firstly, because of time and personnel limitations, the empirical study could cover only the Army Aviation School Maintenance Personnel in Ankara. Although, a similar structure may exist in other units, one should be cautious in terms of generalizing the results of this study.

1.5. Organization of the Study

In the first part of the study, the evolution of career development theories is discussed starting from the definitions to the personal and organizational needs and

responsibilities. The factors affecting the efficiency of the people in their job are examined in terms of career development concepts and definitions.

Secondly, under the heading of "Evaluation of the Career Development System of Army Aviation Maintenance Personnel", the related theories about the effectiveness of the Career Development System are used to construct a research model. Then, the questionnaire specially prepared for this study is explained in terms of concepts, sub concepts and factors.

In the "Sample Characteristics" section, the distribution of the sample of Non Commissioned Officers are given. In the "Data Collection Methods" section, the preparation of the questionnaire and the statistical methods used to test the data are explained

The results of the analyses of the research model are given in the section following "Analytical Procedure" section.

In the *conclusions* part, implications of the findings for Army Aviation Maintenance Personnel, overall evaluation of the model and career development system and implications for future research are discussed. In this part, also some recommendations about the career development system are given to increase the effectiveness of the career development system, personnel and organization.

CHAPTER 2

2. CAREER DEVELOPMENT AND ORGANIZATIONAL EFFECTIVENESS

2.1. Human Resource Management and Career Development Concepts

Human resource planning and career development are complements rather than substitutes or synonyms. As illustrated in Figure 1, career development and human resource planning are both sub-elements of a comprehensive human resource management system. As this latter term is generally used, human resource management is seen as a proactive, strategic, integrative approach to the improved use of organizational human resources.

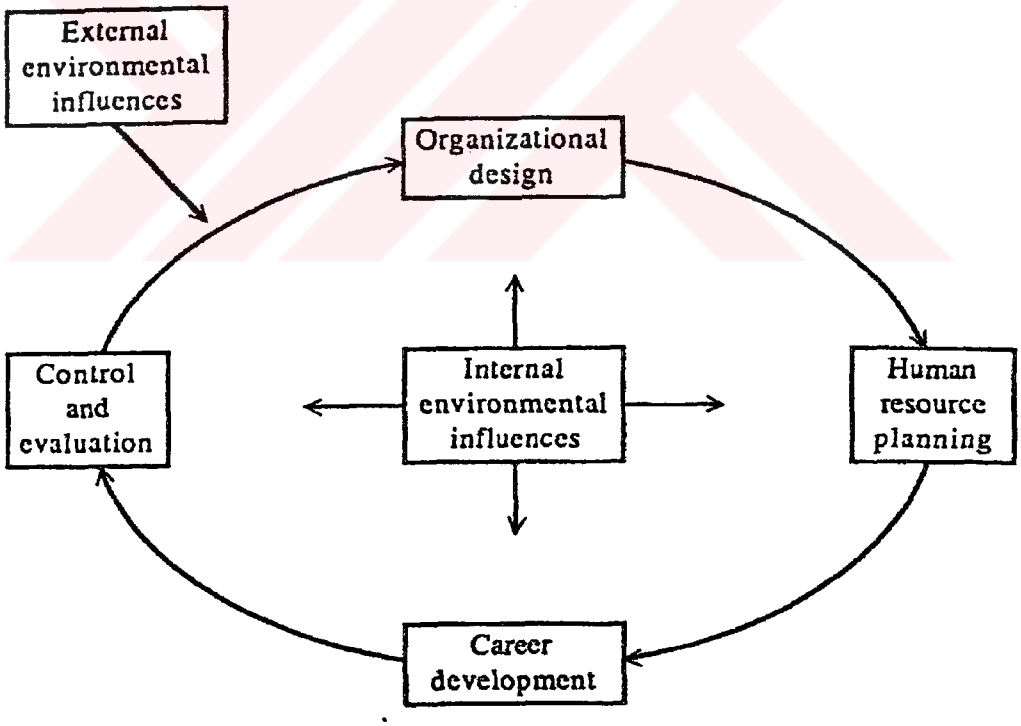

Figure 1. Human Resource Management: A Conceptual Model
Source: Hall, Douglas T., Career Development in Organizations, Jossey-Bass Inc. Publishers, San Francisco, 1987, p.53.

In a general sense, the principal objective of human resource management is to ensure that the organizational work force is effectively managed so as to both achieve institutional goals and provide adequate opportunities for employee growth and development. As indicated in Figure 1, human resource management is comprised of four distinct yet inter-related subsystems: organizational design, human resource (manpower) planning, career development and control and evaluation. And, as indicated, all of these sub-processes are influenced by a variety of internal and external environmental pressures (Gutteridge, 1987).

The *organizational design* component is concerned with such issues as appropriate organizational structure, desired reporting relationships, functional responsibilities, and the like. The control and evaluation phase is necessary so that corrective action can be taken as needed when the results accomplished deviate from the planned objectives.

The term *career* connotes a number of different meanings. To some, the word *career* suggests career advancement and upward mobility. To others, it is a term used to describe those in high-status occupations, such as doctors and lawyers. Douglas T. Hall (1976), however, have argued persuasively that a career is simply a lifelong process comprised of the sequence of activities and related attitudes/behaviors that take place as a person's work life unfolds. As depicted in Figure 2 within an organizational context *career development* represents the outcomes created by the integration of individual *career planning* activities with institutional career management processes. These outcomes may be described in individual terms, such as better self-understanding and the identification of desired career goals, as well as in terms of organizational results, such as reduced turnover of valued employees and better communication of career opportunities to employees (Hall, 1976).

Career development, thus is comprised of two separate but interrelated functions: career planning, which is an individual process, and career management, which is an institutional process. In turn, career planning consists of those activities in which individuals must engage in order to make informed choices as to occupation, organization, job assignment, and self-development. This includes such activities as self-assessment, the evaluation of available career opportunities, and the preparation of

a career strategy with an implementation plan, all of which are key in order for employees to enhance their personal career development.

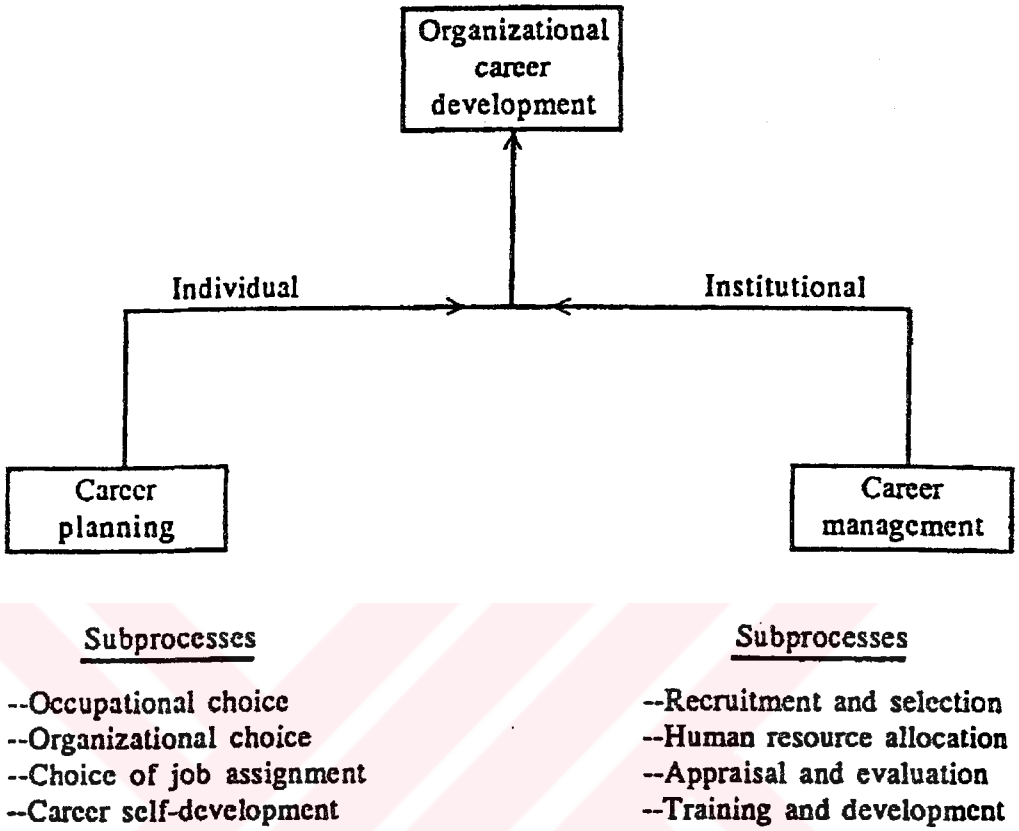

Figure 2. A Working Model of Organizational Career Development
Source: Hall, Douglas T., Career Development in Organizations, Jossey-Bass Inc. Publishers, San Francisco, 1987, p.54.

Career management refers to specific human resource activities, such as job rotation, potential appraisal, career counseling, and training and education that are designed to help match employee interests and capabilities with organizational opportunities (Burack and Mathys; 1987).

As indicated in Figure 2, career development is designed to be a joint process. In some circumstances, however, employees develop career plans even when they are unable to integrate these plans with appropriate institutional career management processes. Similarly, in some organizations a career management plan is prepared without reference to the employees' career interests—that as, promotion and transfer

decisions are based solely on the institution's perceived, human resource requirements without regard to the employee's career interests (Gutteridge, 1983).

Career development is not synonymous with manpower planning. Rather, as reflected in Figure 3, human resource planning and career development are intended to fulfill different objectives. Therefore, having one in place does not negate the need for the other. As indicated in Figure 3, the basic objective of human resource planning is to enable organizations to anticipate their future human resource needs by forecasting the expected demand for labor, inventorying the available internal supply, and identifying the difference between what is needed and what is likely to be available.

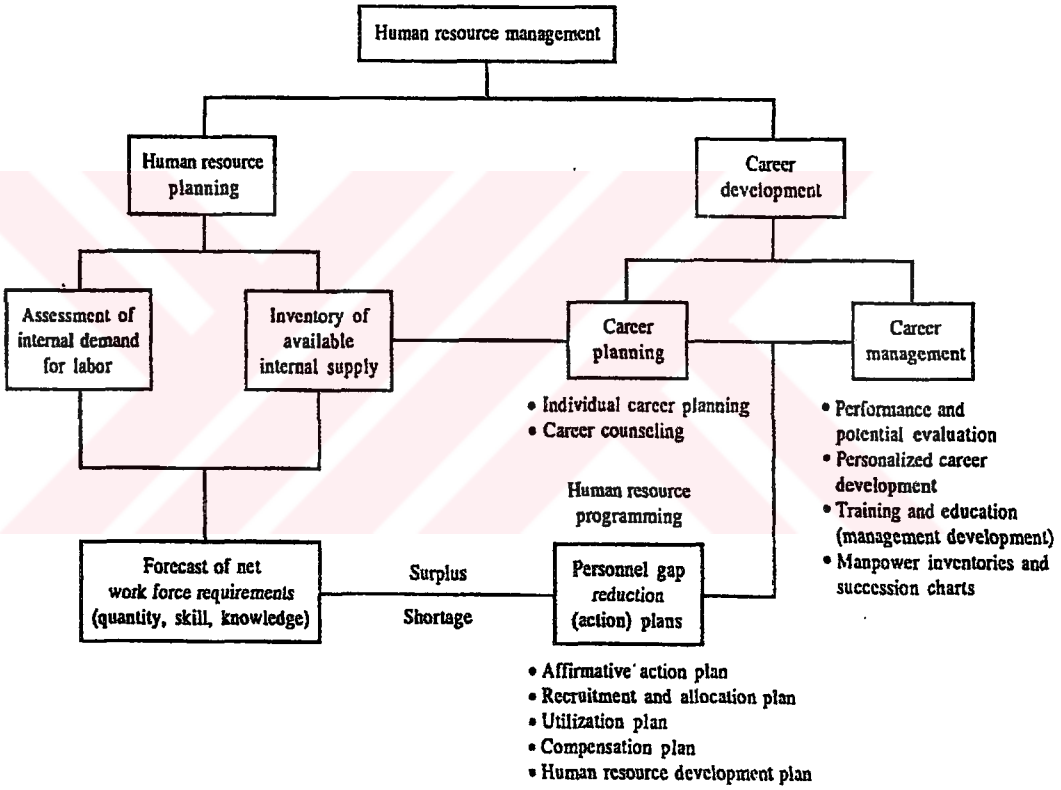

Figure 3. Interface Between Career Development and Human Resource Planning

Source: Hall, Douglas T., Career Development in Organizations, Jossey-Bass Inc. Publishers, San Francisco, 1987, p.57.

The outputs from this human resource forecast are then used to formulate the personnel action plans required to fulfill the net human resource requirements. In turn,

these personnel action plans are an input to the career management process, where they are integrated with employee goals in establishing specific organizational career activities.

It should be noted that, in addition to being linked with career management programs, employee career plans also can serve as a useful input in the forecast of internal supply (Burack and Mathys; 1987).

2.1.1. The Importance of Career Development

Organizations need to recruit, manage and develop human resources in order to maintain their effectiveness, survive, and grow. At the same time people need to find work situations which provide security, challenge, and opportunities for self-development throughout their entire life cycles. The problem for society, for organizations and for people is how to match their respective needs, not only at the point of entry into an organization, but also throughout the entire career or life history of the person or the organization (Schein, 1978; Aytaç,1997).

The concept of "career" makes it possible to explore how this matching takes place over time. The concept has meaning to both the individual pursuing an occupation–the "internal career"– and the organization trying to set up a sensible developmental path for employees to follow throughout their working life in the organization–the "external career" (Van Maanen and Schein, 1977).

Some problems, which are of particular significance in the interaction of people and organizations, can be stated as: (1) the problem of improving human resource planning and development activities in organizations; (2) the problem of improving individual career planning and helping people who are caught in difficult work situations to cope more effectively with those situations; (3) the problem of improving the matching processes at all stages of the career so that early-, mid-, and late-career crises can be dealt with more effectively by both the organization and the individuals caught in these crises; (4) the problem of obsolescence, demotivation, and leveling off which occurs in mid-, and late-career; (5) the problem of balancing family and work concerns at different life stages; and (6) the problem of maintaining the productivity and

motivation of all those employees who are individual contributors and/or who are not motivated toward climbing the organizational ladder (Schein, 1978:2).

2.1.2. The Components of The Career Development Process

The essence of the career development perspective is its focus on the interaction of the individual and the organization over the time. In order to analyze this interaction over time, it is necessary that to spell out first a basic model of the total process of human resources planning and development (Figure 4).

Figure 4 shows the various elements, which must be considered, in analyzing fully the interaction of individual and organization. First, both the individual and the organization exist within a society—a social structure, a culture a value system which defines occupations, criteria for success, and the expected paths through life. It is important to recognize that the culture, through its value system, influences both the organization and the individual in terms of what is considered to be a good career, appropriate work, a good place to work, an appropriate level of ambition, what success is, etc. One of the dilemmas that surfaces when we take a developmental perspective is that the values surrounding work and career are themselves changing, which means that in a given organization there may be simultaneously several sets of values represented in employees and managers of different ages (Schein, 1978:3).

Society influences both organizations and people directly through government legislation, incentives, tax programs, the educational system, and other social institutions. Both the organization and the individual have to cope within that total environment. For the organizations this means attention to labor-market characteristics, economic conditions, laws governing equal employment opportunities, occupational safety and health, retirement policies and age discrimination, technological forces, and market characteristics which specify ultimately what kinds of skills will be needed in the employee pool and so on. For the individual this means attention to occupational and educational opportunities, and a balancing of career concerns with concerns for the family, self-development, and a life-style which has long-range viability (Schein, 1978:4).

In the center of Figure 4, "matching processes" which bring the individual and the organization together into, ideally, a mutually profitable relationship are shown. Recruitment, selection, training, job assignment, performance appraisal, promotion, etc., are viewed as matching processes, not processes which are solely the prerogative of the organization in fulfilling its own needs to get a job done. For the long-range health of both their organizations and the individual employee managers cannot ignore the consequences of how they manage people (Schein, 1978:4).

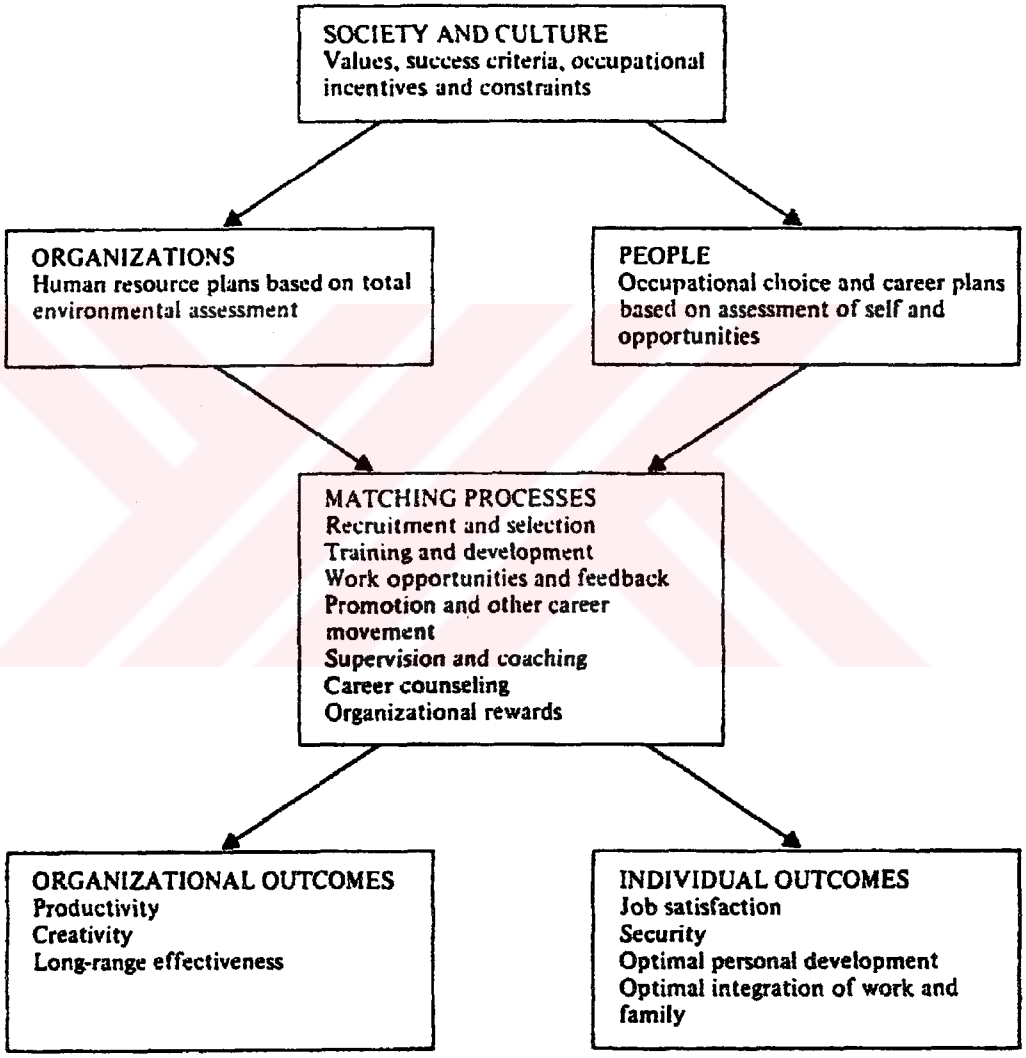

Figure 4. Human Resource Planning and Development: A Basic Model
Source: Schein, Edgar H., Career Dynamics: Matching Individual and Organizational Needs, Addison-Wesley Publishing Company, Inc., Reading, Massachusetts, 1978, p 3.

If the matching processes work optimally, both the organization and the individual will benefit-increased productivity levels, creativity and long-range effectiveness for the organization and job satisfaction, security, optimal personal development, and optimal integration of work and family for the individual. The word "optimal" is important because: (1) people vary in the degree to which they need to be career-or work-involved; (2) these needs change with stages of family and life development; and (3) these needs vary with the particular content of the work being pursued (Bailyn, 1977; Bailyn and Schein, 1972).

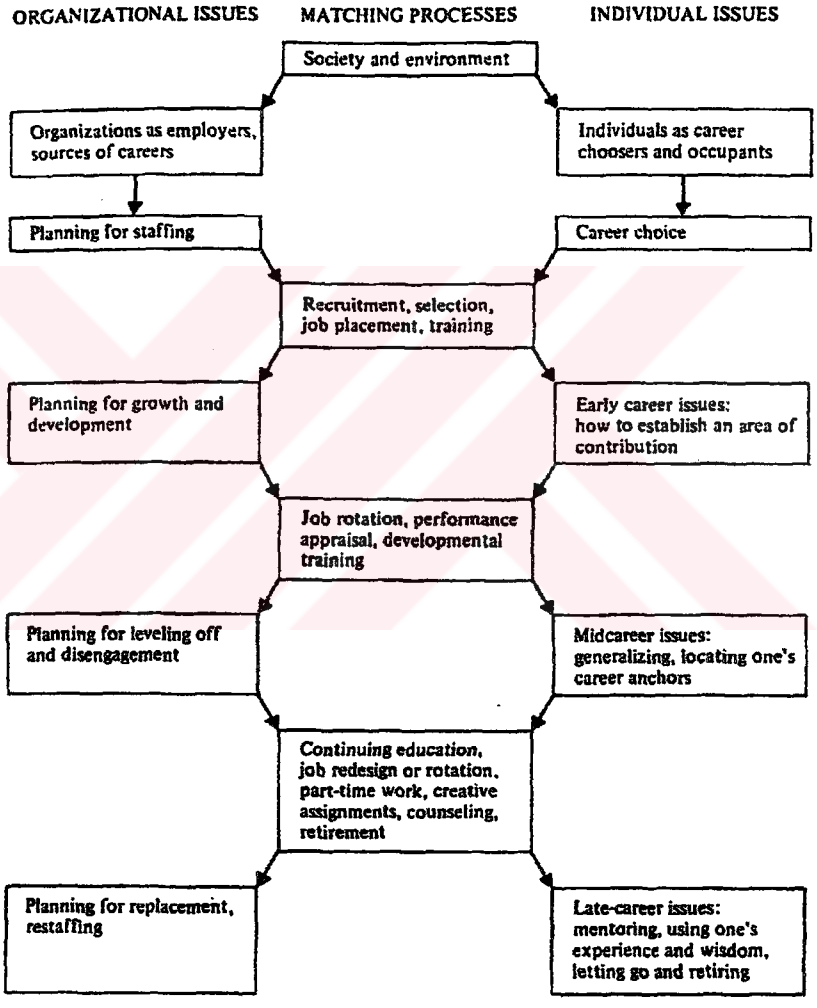

Figure 5. Human Resource Planning and Development: A Temporal Development Model

Source: Schein, Edgar H., Career Dynamics: Matching Individual and Organizational Needs, Addison-Wesley Publishing Company, Inc., Reading, Massachusetts, 1978, p 4.

the environmental conditions, which operate. These conditions identify as a major activity an the part of the organization its *planning* function in order to identify for both the short-and long-run what its needs for human resources will be (Schein, 1978).

As Figure 5 shows, these planning activities must take into account the career development cycle, focusing not only on initial recruitment, but also on the growth and development of human resources, leveling off and disengaging as people's needs change or as the nature of the work changes, and retirement and replacement. It is important to emphasize from the outset that such organizational planning must take place for the sake of organizational effectiveness, whether or not any individual career planning takes place (Schein, 1978:5).

Two important facets of career development process are described by Walter Storey, who did pioneering work at General Electric. The first is the work of individual employee who is attempting to plan his/her career in a personally satisfying and productive manner. The second relates to the activities of organization that will effectively select, assess, assign, and develop employees to provide a pool of qualified people to meet future corporate needs (Storey, 1976). The individual-level is often called *career planning*, while the organization-level approach is termed *career management*.

To provide and maintain the productivity of an organization these two facets should be balanced. These two facets complement and reinforce each other. If individual employees have failed to plan for their own development, they may not be ready to respond to opportunities presented through organizational career management activities. Similarly, no amount of individual career planning and preparation can be effective if organizational opportunities for career movement are not available.

Human resource planning, as a key organizational activity becomes especially important as the rate of change in the world is itself increasing. Not only is it important to know what kinds of skills will be needed to fulfill particular organizational missions, but also the rapid change in key jobs such as those of functional and general managers requires more carefully thought-out training and development programs. Interdependence among various organizational specialities is also increasing, requiring a more careful assessment of how many of each kind of employee will be needed in order to maintain a reasonable balance. Finally, key specialities are coming to be more important to organizational performance, e.g., financial specialists, computer programmers, marketing experts, project managers, employees who can work at key organizational interfaces, and so on. Some of these specialists will be a scarce resource, requiring more careful planning in order to retain and challenge them. (Schein, 1978).

Since the needs change over time in different career stages, a good matching system must have the capacity to take those changing into account. Ultimately, the dilemma of an effective total human resource planning and development system is how to maintain a reasonable matching process when both individual and organizational needs change in response to changing environmental circumstances and to internal developmental processes (Schein, 1978; Gutteridge, 1987).

2.2. Career Management Concept

The management of careers is a process that involves managers, human resource staff, external parties, and the individuals themselves. It is a broadly inclusive process without a specific designation of sole responsibility. Further, it is a process that includes many activities, varying in intensity by organization and the needs of particular employee groups (Walker, 1980:251).

Every employee is influenced by management actions at each step of his or her career: As shown in Table 1, each of the aspects of career management entails certain issues of human resource planning importance.

Such career management practices in most companies, however, are not closely integrated as a unified system. Nor are the policies and practices applied always

carefully thought through as to their potential impact. Further, career management practices are subject to the same dynamic forces as other management fractions, and thus must be responsive to changing legal, social, and economic conditions (Walker, 1980:251).

As shown in Figure 6, individual needs flow from broad personal objectives and career/life plans, and are translated into company-relevant career development plans. Company needs flow from broad business objectives and plans, as represented in human resource plans. The systems, often devised primarily to satisfy the company management needs, also serve the individual's needs. The responsibilities for administration and maintenance of the systems and the effective use of these systems to serve management and individual needs are therefore mutually shared (Alfred, 1967).

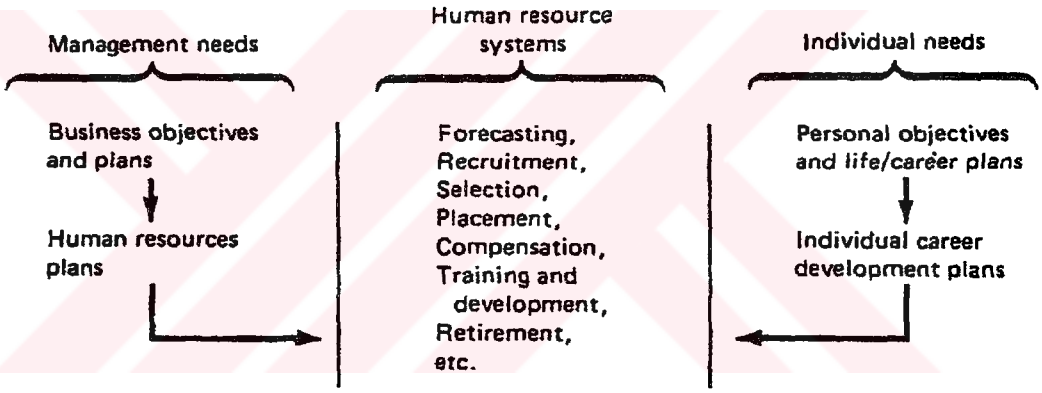

Figure 6. Career Management: A Dual Linkage
Source: Walker, James W., Human Resource Planning, McGraw-Hill Publishing Company, New York, 1980, p.253.

This is a conceptual perspective, of course, and in many organizations there is little significant linkage with the individual side of the equation. In other instances, the absence of human resource plans and of particular human resource systems has fostered the emergence of strong informal systems. For example, identification of job opportunities within a "closed organization" is sometimes affected through very powerful informal communication lines based on personal contacts and gossip chains. "Who knows who" can work as a powerful force in internal search and placement. In the absence of formal, objective criteria for employee selection, informal criteria will

be applied, representing personal perspectives of the important variables (which may sometimes include school ties, age, ethnicity, and other non-job-related factors) (Walker, 1980:253).

Table 1. Career Management Issues

Source: Walker, James W., Human Resource Planning, McGraw-Hill Publishing Company, New York, 1980, p.252.

Career management aspects	Human resource planning issues
Recruitment	
• Attracting a flow of applicants	Knowing/influencing the supply of talent available
• Defining hiring requirements	Use of agencies or search firms
• Selection	Defining staffing needs
• Induction and orientation	Defining bona fide job requirements
	Providing realistic information to recruits
	Validation of selection process
	Shortening of the learning curve
	Minimization of early turnover
Placement	
• Defining job requirements and career paths	How to define professional and managerial job requirements and
• Inventories and placement systems	job families/career paths
• Job posting and bidding	What to put into an inventory and
• Selection procedures	how to put it to use
• Fast track programs	How much employee involvement is
• Management succession programs	desired/appropriate
• Relocations	Validation of internal selection procedures and practices
	Managing accelerated career progress for high-potential employees
	Minimizing disruptive effects of relocations, controlling relocations
Training and development	
• Individual career planning	Equipping employees with tools to
• Training needs analysis	do their own effective career planning
• Program design and development	Managing raised expectations
• Research and evaluation	Defining training and development needs objectively
	Weighing alternative approaches for meeting these needs
	Evaluating the costs, benefits, and quality of programs
Decruitment and alternatives	
• Terminations	Policies and philosophy
• Retirements	regarding reverse or lateral
• Demotions and transfers	career steps
	Policies governing terminations and ensuring legal compliance
	Effecting flexible retirement policies and practices

2.2.1. Recruitment

The first logical element of career management is the recruitment of people who can be expected to fill an organization's staffing needs. Of course, it is one thing merely to satisfy quantitative requirements; it is another to recruit the desired talent for qualitative requirements of the organization. Also,. recruitment is complicated by management's desire to recruit employees in such a manner that the new employees will have realistic expectation regarding their jobs and their career opportunities, so that turnover will be minimized (Dicle, 1999).

The primary issues in the recruitment process of concern in human resource planning are the strategies for attracting sufficient flows of desirable applicants, defining and applying relevant recruitment requirements and job qualifications, applying valid selection methods, and smoothing the "joining up" process of new hires (Walker,1980:254).

2.2.1.1. Attracting Qualified Applicants

Complications arise in recruitment, particularly for professional and technical talent, when these sources fail to yield an adequate flow of candidates considered to be qualified. Shortcomings are not necessarily due to the sources, or to the methods used for tapping them, but rather to changing labor market availability circumstances (Walker,1980:255).

The use of search firms or employment agencies is a concern also because of the expenses involved. While these external agencies provide a valuable service in identifying and screening prospective candidates, the costs are. high. And the criteria used by the firms may not be wholly consistent with the employer's, if for no other reason than that the agencies' primary criterion of success is *placement,* not subsequent performance or retention. As a. result, some corporations have placed stringent controls over the use of agencies as a recruitment source, including centralized direction over all managerial-level searches. Some large companies may be using several different agencies for different executive positions; efficiencies may be gained by coordinating these sourcing activities (Meyer, 1978).

2.2.1.2. Defining Requirements

While job specifications have been the subject of much attention at blue-collar, clerical, and some technical levels, they have not been well defined at the managerial and professional levels (Schneider, 1976; Wernimont, 1974). On these higher-level positions which require more conceptual, analytic and managerial competencies than specific technical or physical competencies, specifications are more difficult to draw up.

As a result, typical specifications call for certain educational backgrounds ("college degree required, M.B.A preferred"), specified work experience ("three to five years in sales management"), and parameters governing maturity or youthfulness ("minimum ten years experience, management potential sought"). Related statements of responsibilities and duties do not provide a useful definition of the skills, abilities, and knowledge actually required for effective performance of the positions. In fact, recruitment of candidates at managerial and professional levels tends to be based on general parameters rather than on specific job-related criteria.

Recruitment would be strengthened by the use of specifications that are more precisely defined, based on analysis of the work actually expected to be performed on the positions. These would provide a more specific set of criteria for searching out prospective applicants and also for initial screening. Communication of such criteria to prospects aids self-screening, and for those who become viable candidates, they serve as a basis for more realistic expectations which, in turn, will help minimize subsequent turnover (Walker,1980:256).

2.2.1.3. Selection

The recruitment process is a part of the selection process. The manner in which prospects are identified, solicited, and drawn into the employment, process is clearly a procedure which influences the characteristics of resulting recruits. In turn, the procedure is also subject to employment discrimination. Specification of opportunities to prospects has the potential effect of encouraging or discouraging some applicants or prospects.

One way to minimize the risk of inadvertent exclusionary screening in the initial recruitment process is to sweep widely. Broad advertising and broad penetration of candidate sources may help ensure that all prospects are aware of the opportunities. A series of self-screening steps may then be applied, using: realistic information about the nature and conditions of the work as a basis (Murray, 1979).

At the same time, communications may be tailored to enhance the subsequent selection of individuals who are likely to be good performers or likely to stay on the job (retention). Items may be built into the recruitment information which stress the expectations in these regards, using specific characterizations of the demands of the job. As long as such factors are demonstrated to be job-related and not to have a disparate impact on protected classes, they may be useful in self-selection (Walker,1980:257).

2.2.2. Internal Placement

While much attention has been devoted to recruitment and selection, less attention has been given the ways employees are promoted or transferred among jobs in a company. Equal employment opportunity demands have focused on external hiring, but are shifting toward the internal career progression process (Dicle, 1999).

At the same time, companies are seeking more efficient, rational processes for matching individuals with the kinds of work they are best suited to perform. The aim of optimally utilizing the skills available among managerial and professional employees remains elusive, as there is considerable subjectivity in the definition of job requirements as well as individual capabilities and potential (Walker, 1980:261).

Systems for inventorying talent and identifying job candidates are needed for several reasons such as:

- To provide targets for individuals in their personal development
- To assure management of an adequate. prepared supply of talent to meet projected needs
- To assure objectivity and fairness in considering alternative individuals as candidates for a vacancy or anticipated vacancy
- To expand the career progression possibilities for individuals by providing a formal, organization-wide inventory

Increasingly, emphasis is being given the planned *career progression* of individuals from one job to another, based on career plans, career paths and job requirements, and individual appraisals (Walker, 1980:262).

The preferred approach for planning developmental moves, from one job assignment to another (whether promotional or lateral) is data-based inventories and management succession planning incorporating targeted individual development plans. Employee request systems or job posting/bidding systems may be used as supplemental systems. But fall short of meeting the whole requirement because they involve virtually no advance planning or preparation of individuals for targeted positions (except to the extent individuals themselves initiate this through personal career planning) (Walker, 1980:262).

With computer-based personnel information systems, companies are now able to record, store, and retrieve data on individual qualifications and target positions.

An inventory should include basic work experience, education, pertinent skills data, and target positions. Target positions are those positions (or families of similar positions) agreed upon by the individual and his manager as logical and possible next job assignments (Walker, 1980:262).

2.2.2.1. Job Posting and Bidding

Job posting is a system, which allows employees to apply for other positions in a company. It calls for employees to respond to announcements (posting) of positions and then be considered, just as if they were external job applicants. Individual qualifications are considered, and the hiring manager goes through an interviewing process, usually following an initial screening by the personnel staff operating the posting procedure.

A variation on the posting approach is the employee request system. In this system, each employee indicates the position or positions he or she is interested in and feels qualified for. Positions may be selected whether vacancies exist or not. A personnel staff member reviews the individual's record of training and experience and determines whether the individual is qualified for the position requested. If the answer

is affirmative, the request goes into an inventory as a target position, and the individual is automatically considered as a candidate when a vacancy occurs. If the answer is negative, the individual is targeted for specific training or other experience to provide the needed skills and knowledge (Walker, 1980:264).

2.2.2.2. Relocations

Another aspect of the career management problem that is of concern is the increasing difficulty of moving employees from one place to another place. Promotions and transfers usually involve relocation, and with this comes disruption of personal lives and considerable company expense.

The problems of relocation are compounded in international assignments. Cultural differences, economic differentials, and sheer distance from familiar settings make moves among countries particularly straining on families and costly to employers. And the difficulties do not end when an assignment is completed; for then occurs the difficulty of reentry, particularly after a period of years (Lanier, 1979).

2.2.3. Training and Development

Training and development is a human resource planning concern for several reasons:

- It is a central element of human resource management and the principal vehicle for developing skills and abilities of employees other than through job assignments.
- It is a major area of expenditure, both in out-of-pocket costs and in the time devoted by staff and participants.
- It is an important means of influencing management values, attitudes, and practices in human resource management; it is a communications medium controlled by the company.
- It is becoming a subject of concern with regard to legal responsibility.

Underlying these concerns is the nagging question whether training and development efforts are effective and whether, through improved planning, they might be better directed to the needs of the organization and the employees (Walker, 1980: 265).

The principal problem in training and development is knowing what training and development is needed. Too often programs are planned as "programs" and announced

to recruit participants. Human resource planning calls for the tailoring of programs to fit needs, not the marketing of programs within a company (Walker, 1980:265).

Normally as part of the appraisal process, each employee establishes some specific needs for training or development. These designated needs relate to:

- Specific needs for improving performance on the current job
- Needs for preparing the individual for the next (target) job
- Needs for allowing the individual to consider alternate career choices (for example, an individual who wishes to move into data processing)

These needs result, ideally, from discussions between the individuals and their managers. One technique calls for the individual to identify his or her own needs, followed by a formal appraisal process. A final appraisal document presents an agreed-upon development action plan (Mager, 1970).

An alternate approach is to conduct needs analysis surveys. Whether by interviews with managers or by use of a survey questionnaire, a needs analysis study can identify the perceived topics requiring attention in an organization. Such surveys may be open-ended, soliciting viewpoints and suggestions regarding training and development, or they may be structured, asking for ranking of topics as to relative needs. Surveys may address both general needs (for example, planning, control, writing ability, oral communications, decision making) or specific functional, product, or job-related needs (Berger, 1976; Rimler and DeGenaro, 1978).

When preparing education and development plans, it is important to weigh objectively the relative merits of making, borrowing, or buying the necessary program materials. In-house education offers the greatest potential control, some companies believe, but may not be the most economical in the long run, nor the most creative. External packages offer advantages, but sometimes fall to fit company needs precisely. Similarly, external seminars and courses may be less expensive, but only if they are of adequate quality and coverage to meet the needs (Craig, 1976; Goldstein, 1974; McGehee, 1977; Odiorne, 1970).

2.2.4. Decruitment and Alternatives

Every career must end sometime, and everyone must leave employment in an organization sometime. Death or disability takes some, with little notice or choice. Other employees voluntarily retire, whether at the normal date or earlier; some are forced to retire at a mandatory age. Some resign to pursue other interests or continue careers elsewhere. Still others are terminated by the company, either on an individual case-by-case basis or as part of company programs to reduce staffing or to reorganize (Walker, 1980:270).

A certain amount of turnover is desirable throughout an organization, to ensure a flow of new talent and to open vacancies for internal career progression. However, the turnover is usually greater among the new employees and far lower among the longer-service employees. It is higher in many companies among the more talented employees and lower among those employees whose performance has declined, who have few external career options, and who see their careers as having reached a plateau (Walker, 1980:270).

Then, it becomes a necessary human resource planning concern to induce turnover, to remove blockages in career paths in an organization, and to foster career development and optimal performance.

2.3. Career Opportunities

Many employees want to know more about the career opportunities available in an organization to help them set realistic career objectives and plan practical steps for their personal career development. Recent proliferation of career-planning materials, workshops, and company-sponsored counseling programs indicates a growing employee awareness and activism regarding careers. However, the information available to employees regarding career paths is usually quite limited, and does not tell "the whole story" about job progression possibilities and associated qualification requirements.

Many managers also want career paths to be defined, so that an adequate number of individuals may be identified and prepared to fill future vacancies. Once career

progression patterns are identified, more systematic forecasting of staffing requirements is possible.

In addition to employee and managerial interest in career paths, equal employment opportunity and affirmative action program compliance, description of jobs in terms of actual requirements–work content and related qualifications should be maintained. Employee selection and upgrading decisions are to be based on job-related factors, which nets out to mean a definition of possible career paths (Walker, 1980:309).

Career paths are not a new phenomenon invented by human resource planning professionals. In many companies quite a bit of work has been devoted to the formal defining of career paths, but that does not mean that the career paths were created in the process. Career paths do not need to be described in writing in order to exist. Rather, employees move through a patterned sequence of positions or roles, usually related to work content during their working lives. This is the crux of the notion of a career path (Walker, 1980:309).

For purposes of career management and other aspects of human resource planning, however, career paths are useful only when they are formally defined and documented. Career paths are more appropriately defined as objective descriptions of sequential work experiences, as opposed to subjective individual feelings about career progress, personal development, status, or satisfaction (Walker, 1980:309).

An organization needs to move individuals along career paths, to develop the diversity of capabilities necessary to staff various levels and types of jobs. At the same time, not all individuals need follow career paths. There is a need for "career professionals" in many specialist positions. Neither do individuals need to follow upward career paths. Lateral paths provide exposure to multiple functions and activities and thus develop broader capabilities among individuals. Many individuals find lateral careers highly satisfying (Walker, 1980:310).

2.3.1. Defining the Career Path

Career paths have emphasized upward mobility within a single occupation or functional area of work. In many companies career paths have meant step-by-step

progression tied to years of service. If an individual deviated from the prescribed lockstep pattern and timing, he or she faltered. Such career paths were developed in the following manner:

1. Examination of the paths followed in the past to the top "rungs of the ladders"
2. Identification of entry and exit points into the career path, usually at the bottom only
3. Definition of requirements for the entry positions, normally in terms of educational level and specialization, experience, and years of service
4. Identification of the important job experiences leading, to the top "rung," and benchmark timing for reaching each "rung"

This process described a generalized or idealized route for advancement within the unit or function. It made career paths explicit, and no longer just subjective.

A typical career path within the sales function, for example, might include five steps, shown in Figure 7. Each step in the progression is largely paced by years of service (Pearson, 1966). Such a restrictive path might be improved by recognizing a flexibility regarding the years of service; otherwise the progression is a simple age and service lockstep which would prevent young salespeople from progressing, even if they were quite capable. Further, the path could acknowledge other options which might provide valuable experience in developing district, and regional managers. Assignments in finance or marketing research, for example, or in production might be valuable in sales management. The path implies that this is the only way to move ahead in the organization.

Another problem with career paths is that they imply the necessity of moving ahead—of climbing career ladders and the corporate hierarchy. Lateral moves, downward moves, or staying at a given level on a career basis are not indicated as attractive options. The bias toward promotions as the only meaningful career direction is clearly built into this traditional perspective of a career path.

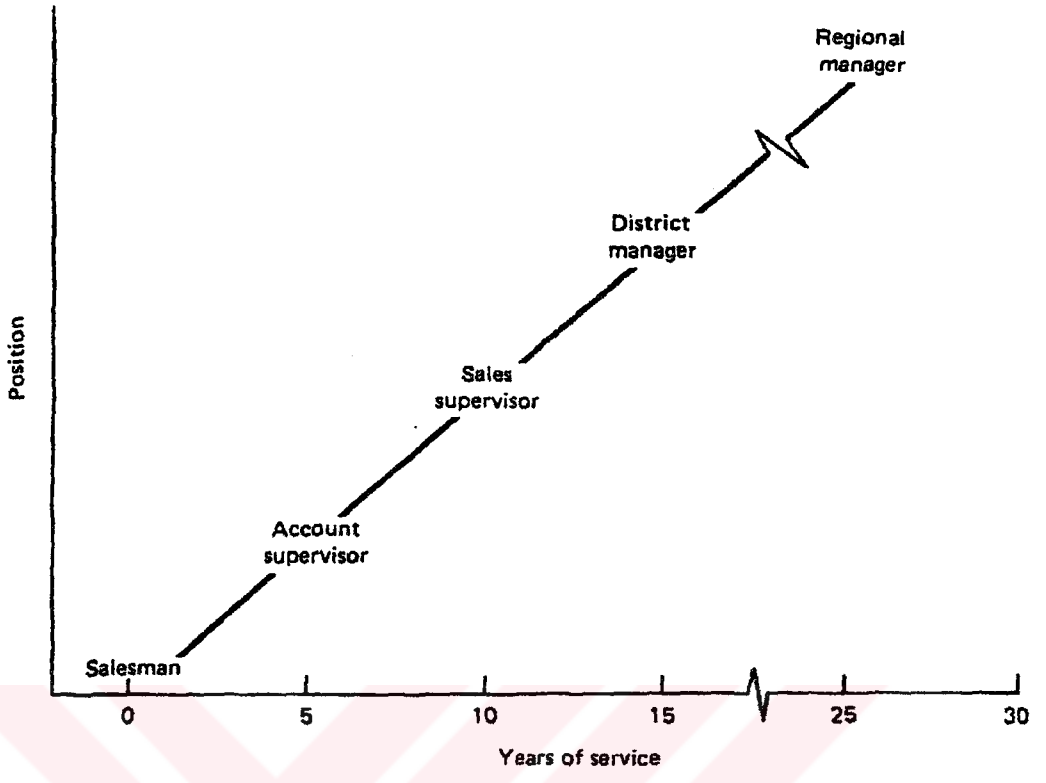

Figure 7. A Sales Career Path

Source: Walker, James W., Human Resource Planning, McGraw-Hill Publishing Company, New York, 1980, p.311.

Rather than defining paths as linear, narrow progression lines, it is possible to pinpoint each position in an organization within a grid framework. In this way various career movement options are displayed as paths. Traditional vertical paths within functions or units are represented in each column, but the juxtaposition of other vertical paths provides a way of identifying a multitude of lateral, diagonal, and even downward career progression alternatives. The possibilities are limited only by the vacancies that actually occur and by the individual's qualifications relative to the position requirements.

Table 2 presents such a grid, adapted and excerpted from a career planning grid actually used in a commercial bank. The levels indicated are broad organizational levels and are not directly linked to salary levels. The intent is to avoid confounding

the career planning activity with compensation administration factors (Walker, 1980:311).

Table 2. Career Planning Grid for Major Divisions of a Bank

Source: Walker, James W., Human Resource Planning, McGraw-Hill Publishing Company, New York, 1980, p.312.

Level	Retail banking	Corporate banking	International	Operations
D	District manager Branch manager A District lending manager	Department manager Senior account manager	Regional manager	
C	Branch manager B Lending manager A Branch operations manager A Branch manager C	Institution manager Senior account manager		Section manager
B	Commission lending manager Branch operations manager Branch manager D Branch operations manager B District trainer	Account manager Associate institutional manager Associate account manager	Area manager Liaison representative Area specialist	Senior programmer Service representative Analytical programmer Operations supervisor
A	Branch operations manager B Commission lending officer Operations specialist Retail lending officer Operations supervisor	Account administrator	Account representative	Industrial engineer Operations analyst Associate programmer Technical writer Buyer Procedures analyst

Using the grid, employees and managers may consider the various alternatives to the usual "up-the-ladder" career progression. A commission lending officer in the retail banking division, for example, could most easily move to any of the other titles in level A within that division. The second most likely progression would be to level B positions within that division. Other alternatives might be positions in level A or level B in the other divisions.

For each position title a brief profile of the position activities and qualifications required is provided. Thus the employee or manager has available a sort of catalog of job options to consider in career planning and in considering career development activities. Qualifications are stated in terms of skills, abilities, and knowledge required, interpreted from the statements of activities performed (for example, "ability to..."). Appropriate kinds of job experience, educational specialization, and other indicators of these capabilities may be indicated, but educational degrees, years of service, age, personality characteristics, and other such factors not clearly job-related are not included (Walker, 1980:313).

2.3.2. Behavioral Approach for Defining the Career Path

Job descriptions rarely represent actual on-the-job behaviors. They tend to emphasize duties and accountabilities and are, at any rate, written for purposes other than considering career development requirements. Job descriptions, organizational manuals, operating procedures, training manuals, and other existing data may be useful inputs to the process. In most instances, however, some form of data gathering directly from employees is necessary to provide a sufficient basis for analysis of job similarities and differences (Walker, 1980:315).

In a sense, positions have always been grouped on the basis of similarity. Geographic location, organizational unit lines, technical specialization, and business function or product are typical bases for grouping jobs and thus prescribing career movement possibilities. Often when career paths are first described they are restricted by one of these particular dimensions. This may make sense, if the employer feels it is impractical to relocate employees across great geographic distances, or if the organization is composed of autonomous operating units. For managerial, professional, and technical talent, however, most organizations are discounting the significance of these barriers to career development (Walker, 1980:315).

The dimension that is being used today to "open up" career paths and give them greater realism is the behavioral aspect. By examining actual work activities—behaviors—it is possible to identify striking similarities in job content, even where the functions or technical specializations are different.

This process assumes that individuals can acquire necessary technical skills or specialized knowledge that may be needed on a position. The progression from one behavioral role pattern to another is viewed as the critical dimension in career paths—from task specialist to manager. Experience suggests that employers tend to underestimate an individual's adaptability to different types of specific tasks, and to overestimate an individual's ability to change roles and become a supervisor, coordinator, administrator, or manager. Changing role behavior patterns is the most difficult aspect of management development, starting with the instance of promoting the "best worker" to a foreman role. This view does not demean the importance of

maintaining or developing adequate technical competence on a position. In developing career paths, both dimensions need to be examined (Walker, 1980:316).

The behavioral approach provides greater flexibility in career planning, offering individuals a wider range of career options and management a larger pool of job candidates. Realistic moves along lateral career paths and moves among positions within the same job family are also explicit options as part of the overall career system. Further, positions may be reclassified in groups and paths as their work content changes, in response to individual differences, managerial styles, organizational, or other forces. The career system, then serves as a realistic framework for keeping track of jobs and the planned movement of individuals (Walker, 1980:318).

As shown in Table 3, it is possible to summarize the characteristics of three kinds of career paths: historical, organizational, and behavioral.

Table 3. Three Kinds of Career Paths in Contrast

Source: Walker, James W., Human Resource Planning, McGraw-Hill Publishing Company, New York, 1980, p.319.

Historical	Organizational	Behavioral
Past patterns of career progression; how the incumbents got where they are	Paths defined or dictated by management to meet operating needs; progression patterns that fit prevailing organizational needs	Paths that are logically possible based on analysis of what activities are actually performed on the jobs
Actual paths created by the past movement of employees among jobs	Paths determined by prevailing needs for staffing the organization	Rational paths that could be followed, management willing
Perpetuates the way careers have always been	Reflects prevailing management values and attitudes regarding careers	Calls for change; new career options
Used as basis for promotions and transfers	Usually consistent with job evaluation and pay practices	Used as basis for career planning
Basis is informal, traditional	Basis is organizational need, management style, expediency	Basis is formal analysis and definition of options

Historical paths are the informal paths that have always existed in the past and are represented by the past patterns of career movement among the incumbents of senior positions. These paths have guided promotions and transfers over years as managers

have promoted subordinates through their own footsteps. These paths are easily analyzed by examining biographical histories (Glaser, 1968; White, 1970).

Organizational paths are those defined by management, often through negotiation among the managers concerned. They are the paths considered pragmatic by management and are reflected, therefore, in the business plans, needs, and organizational structures. These paths clearly reflect the prevailing values of management in organization. Such paths are represented in the relationships noted in job descriptions prepared for salary administration purposes; vertical paths are likely to be consistent with the salary progression patterns followed in practice. Career paths and job evaluation practices both are influenced by the same expedience-oriented management judgment (Glaser, 1968; Jennings, 1971).

Behavioral paths, in contrast, represent the logical and possible sequences of positions that could be held, based on the analysis of what people actually do in an organization.

2.4. Career Planning Concept

Career planning is the process of setting individual career objectives and devising developmental activities that will achieve them. It is a private, personal activity guided primarily by personal knowledge and impelled by personal initiative, in the broadest sense, it is the personal process of planning one's future work. In the process individuals analyze their interests, values, goals, and capabilities; consider the available opportunities; make decisions that may affect activities relating to the current job; and establish personal development plans that are likely to bring desired results (Dyer, 1976; Walker, 1977).

Historically, personal knowledge and initiative have impelled career planning, while education and work experience, personal contacts, and generally "being at the right place at the right time" have been keys to career progress. Increasingly, however, companies are providing resources to help employees consider their career plans. Programs typically include career counseling by personnel staff or by supervisors; group workshops to help employees evaluate their skills, abilities, and interests and to form development plans; self-directed workbooks aimed at guiding career planning

and analysis by the individuals; and communication of job opportunities and other information useful in career development (Walker, 1980:327).

Career planning is the individual employee's counterpart to the company's overall human resource planning process. And the two processes need to be closely coordinated if the needs of both the individuals and the organization are to be satisfied (Schein, 1978).

2.4.1. Career Planning Process

Everyone has a career, but not everyone plans a career. A career is a commonsense concept that is widely accepted, but few people really have logically analyzed their careers or charted future career plans (Hall 1976; Van Maanen and Schein, 1975).

For many years, the popular model of career success has been characterized by individual responsibility for personal development and career advancement. Hence individuals are encouraged to define personal objectives and pursue their achievement. They are encouraged to "succeed" in organizations by displaying their talents effectively, by obtaining the support of a sponsor or mentor, by changing jobs (or employers) whenever opportunities appear blocked, and by generally being savvy regarding organizational opportunities, constraints, and management practices (Walker, 1980:328).

2.4.1.1. Levels of Career Planning

There are essentially three outcomes from individual career planning: (1) broad conclusions about one's own capabilities, interests, aspirations and objectives—*life planning;* (2) targets for future job assignments, developmental activities to make that progress happen, and plans for other future career decisions— *development planning;* and (3) specific goals and plans, work priorities, and reward expectations on the current job assignment—*performance planning.* Individuals should consider these levels of career decisions so that day-to-day activities fit in with an overall career plan which, in turn is consistent with personal feelings and expectations about life. A person needs to tie together short-range, middle-range and long-range thinking about careers if personal development is to be effective (Walker, 1980:329).

As shown in Figure 8, the three levels of career planning integrate the various forces influencing career choices, the diverse bits and pieces of information available to a person, and the person's own attitudes. In developing life plans (or "themes") the individual draws primarily from introspection. In developing development plans and job-specific performance plans, the individual relies more heavily on managerial inputs (Walker, 1980:329).

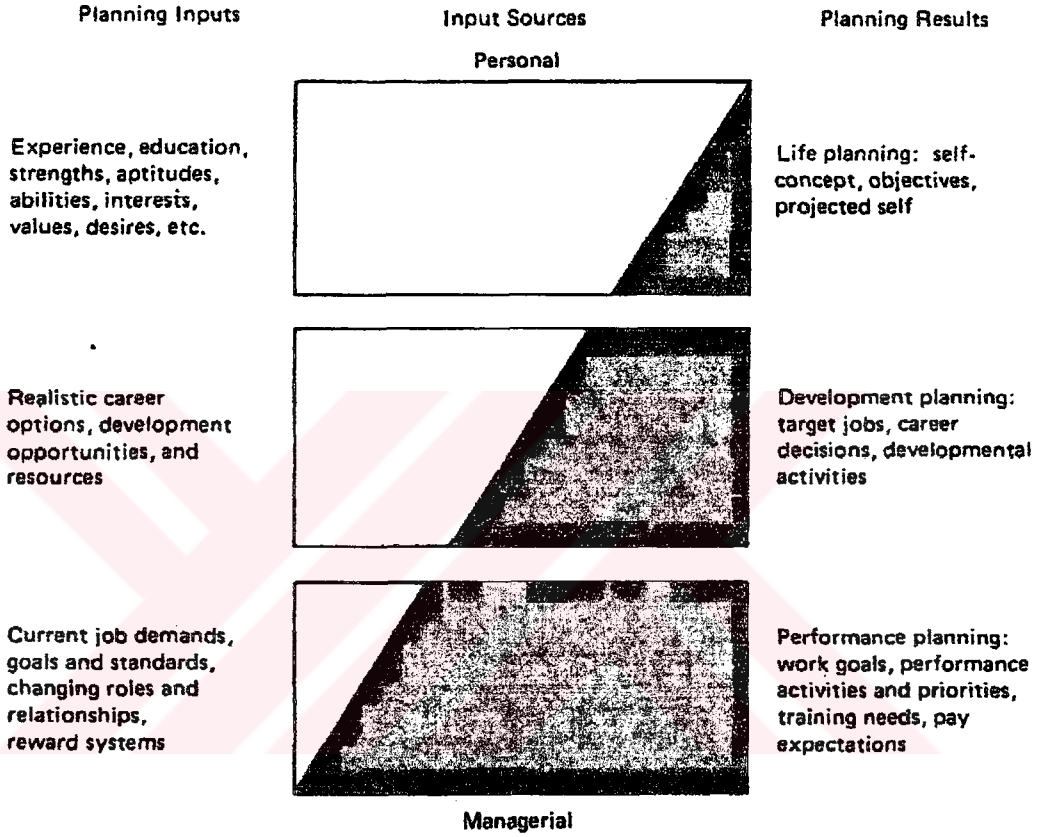

Figure 8. Levels of Career Planning

Source: Walker, James W., Human Resource Planning, McGraw-Hill Publishing Company, New York, 1980, p.329.

As shown in Figure 8, individuals must largely be self-reliant in life planning, must expect a cooperative relationship with management in development planning, and must rely primarily on management in performance planning. While this may be a broad generalization, it serves to highlight the dilemma of many individuals: a lack of skills to do effective life planning, at the one extreme, and a lack of adequate inputs from management to do effective development or performance planning. When

management fails to fulfill its role, individuals move in to fill the gap, making their own assumptions about opportunities as a basis for decisions. Attention also tends to shift toward voids at the more immediate levels. Hence if management plays its proper role, individuals are able to reach conclusions about performance and development more readily and can then concentrate on long-range life planning (Walker, 1980:330).

2.4.1.2. Influential Factors in Life Planning

An individual draws from many sources in developing a self-concept and life plan. Influences of childhood, family experiences, friendships, education, and successive work experiences are all noteworthy. Personality factors have a major impact on one's outlook, but these are heavily influenced by social interaction and acculturation. How much risk a person will take, the choice of life-styles, the level of achievement motivation, and energy are among the fundamental factors influencing a person's long-range career direction and development (Crites, 1969; Hall, 1976; Schein, 1978; Super, 1957).

In a 1974 study of management school graduates, Schein observed five dominant motives of what people wanted from their careers (Schein, 1975). These basic motives, which Schein calls "career anchors," help account for the different ways that individuals select occupations and long-range career goals. They are as follows:

1. *Managerial competence:* A person seeks and values opportunities to manage. This reflects further values for interpersonal competence, analytical competence, and emotional maturity.
2. *Technical/functional competence:* A person seeks and values opportunities to exercise various technical talents and areas of competence. Such a person resists being promoted out of a technically satisfying role into one that is primarily managerial.
3. *Security:* A person is motivated primarily by the need to stabilize his or her career situation, even if that means subordinating some personal work needs or desires to those of the employing organization or the profession.
4. *Creativity:* This anchor is difficult to articulate, but relates to entrepreneurial values. A person is driven by a need to build or create something that is entirely his or her own product.
5. *Autonomy and independence:* A person seeks work situations where he or she will be largely free of organizational constraints to pursue professional or technical/functional competence. These persons value autonomy more than the exercise of technical talents per se.

2.4.1.3. The Role of Organizations in Career Planning

From the management viewpoint, career planning and development should remain an individual responsibility. However, many individuals lack the information, the skills, the insights, or sometimes the initiative to determine their own career plans effectively (Walker, 1980:333).

Management provides certain systems and activities aimed at building and maintaining a competent work force to meet the company's needs. Many companies are establishing programs and systems to assist their employees in career planning. Systematic self-analysis and career development are viewed as beneficial to both the individuals and the company. Career planning practices are not aimed at planning people's careers for them, but rather at;

- Helping employees conduct their own career planning by raising questions that need to be answered and providing information on available opportunities and resources
- Guiding employees in taking advantage of systems available for career development, such as job posting, performance reviews, training, and educational assistance programs

Some company-sponsored career-planning programs have been prepared to reduce turnover, improve the "quality of working life", and improve on-the-job performance. Some companies have initiated career-planning programs specially to help employees whose career expectations are *too low*. These companies have found that it is in their best interest as well as the employees' interests, to stimulate career aspirations toward more ambitious career goals—to actually *raise* employee expectations. Several companies have focused on "career awareness" or "achievement motivation training" as a central component of career-planning workshops (Walker, 1980:334).

When asked to identify the reasons for offering career-planning programs in a survey, most respondents indicated that basic desires to aid employee development were the primary motives (Walker and Gutteridge, 1979).

The most influential factors identified in this survey of 225 companies are as follows:

1. Desire to develop and promote employees from within
2. Shortage of promotable talent
3. Desire to aid career planning
4. Strong expression of employee interest
5. Desire to improve productivity
6. Affirmative action program commitments
7. Concern about turnover
8. Personal interest of unit managers
9. Desire for positive recruiting image

2.4.1.4. Techniques Used in Career Planning

The basic techniques used to aid individual career planning include counseling, workshops, self-development materials, and assessment programs. Counseling may be provided by personnel staff (sometimes, specialized staff counselors such as psychologists or trained guidance counselors), by supervisors, or by external counselors or related services (career centers, universities, etc.). Workshops encourage individuals to assess their interests, abilities, and circumstances; increase career awareness; and set personal development goals and plans. The group setting fosters interaction and mutual help among employees. Self development materials include workbooks and reading materials, whether developed specifically by the company or published for general public use. They have the appeal of requiring self-initiative and investment of personal time and effort by employees. (Walker, 1980:335).

2.4.1.5. Relative Merits of Career-Planning Activities

Just because companies provide certain activities does not necessarily mean that these are the most effective, or beneficial. To the contrary, what a company may consider suitable may not be the most suitable for individual employee needs. Further, virtually every possible technique has both positive features and disadvantages.

Table 4 presents a subjective assessment of the various techniques that might be used in aiding career planning. The information given is useful in weighing the relative merits of alternative career planning practices (Bowen and Hall, 1977).

Table 4. Characteristics of Various Career Planning Activities and Probable Contribution to Career Success

Source: Walker, J., Human Resource Planning, McGraw-Hill Publishing Co., New York, 1980, p.340.

Activity	Potential advantages	Potential shortcomings	Probable impact on psychological success and identity integration
Individual activities			
1. Personal planning with possible aid of self-help materials	a. For persons with strong motivation and adequate sources of information, may be adequate for goal setting b. Cost is minimal	a. Most people need interpersonal feedback to develop a complete and accurate self- evaluation b. No built-in mechanism for checking completeness of information on occupational opportunities or for correcting distorted views of self. c. No opportunity to explore new occupational possibilities.	Considerable potential contribution because individual sets own goals. Actual contribution likely to be minimized, however, because the activity lacks mechanisms for exploration of new potentials, interpersonal feedback, and social support to maintain motivation.
Counselor-client activities			
2. Testing approach: Guidance counselor administers vocational interest and aptitude tests and feeds data back to client	Test results and information supplied may be of considerable value for client.	a. Usually expensive b. Client has no way of testing validity of counselor's views or test results. c. Interpersonal feedback likely to be minimal	Since people do not readily accept disconfirming data in situations where there is no opportunity to validate the information, contribution may be relatively limited.
3. Counselor approach: Emphasis on interpersonal exploration of client's needs with counselor	Skillful counselor may provide valuable input for self-assessment	a. No mechanism for checking validity of counselor's perceptions. b. Most helpful in exploring personal needs; minimal stress on occupational information c. Usually expensive	Potentially helpful, subject to the limitations that client must experience insights produced as valid and must check validity with other persons outside the counseling situation.
4. Combination testing and clinical approach	a. Combines benefits of both testing and counseling approaches b. Checking test results against perceptions of counselor provides some mechanism for "validating" information	a. Potentially very expensive b. Most counselors are not equally proficient in both approaches. c. Counselor may experience a need to see client in a manner consistent with test results.	Essentially the same as for number 3.
Boss as counselor or coach			
5. Superior regularly or periodically assesses subordinate's performance and provides feedback and suggestions for improving performance and/or career opportunities.	a. Superior may have an excellent opportunity to observe subordinate's behavior in a number of work activities. b. Superior knows career opportunities within the organization. c. Superior can provide assignments to expand subordinate's capabilities.	a. The superior's power can be highly threatening, causing subordinate to be defensive, cautions, and closed to feedback b. Superior's first loyalty is likely to be seen as to the interests of the organization, not the subordinate. c. Not likely to integrate non-work aspects of subordinate's life with career issues.	a. If done as a part of Performance appraisal, depends on format. Traditional performance appraisal unlikely to be productive. b. If done as informal coaching, can be very effective to the extent that superior provides relatively nondirective assistance which maximizes subordinate's freedom to choose.

Table 4. Characteristics of Various Career Planning Activities and Probable Contribution to Career Success (Continued)

Group activities			
6. Assessment center: usually conducted by or sponsored by employer. Employee is tested by a number of pencil-and-paper tests and is presented with situational tests and interviews where performance is observed and evaluated. Evaluators are often other managers trained in the technique. Psychologists design center and interpret test results.	a. Substantial amounts of data can be developed quickly. b. Multiple judges on panel and results of several tests provide variety of perspectives for candidate c. Moderate cost—usually borne by employer. d. Some evidence for more valid predictions than available through counselor-client approaches.	a. High-threat situation: 1.Employee likely to feel "on the spot" and anxious about results—not an optimal situation or feedback 2.Center serves interests of employer first, which may be incompatible with interests of employee b. Primary emphasis is not on setting of personal goals. c. Data generated primarily applicable to career with employing organization only. d. Interpersonal feedback frequently not a prime or major objective. e. Does not provide information on other job possibilities, especially outside employing organization.	a. Likely to be minimized to the extent that employee: • Cannot really choose not to attend. • Is not involved in design of activities • Is threatened by long-term career implications of evaluation. • Receives minimal or threatening feedback b. No explicit provision for goal setting. c. No support group for planning or dealing with career crises.
7. Life planning workshop: conducted within organization. A set of semistructural experiences are presented which encourage participants to assess their values, situation, etc.; to set goals; and to develop greater self-awareness through interpersonal interaction with other participants.	a. No cost to participant b. Encourages personal goal setting c. Wide exploration of self and needs encouraged. Copious interpersonal feedback generated. d. Supportive environment. e. Development of "supportive groups" and opportunities to assess and develop job-relevant skills possible. f. Other participants are frequently valuable sources of information an career alternatives. g. Goals developed and development needs can be integrated into parallel organizational programs. h. Can be a part of an organization development effort.	a. Normally do not provide occupational information, especially for careers outside the organization. b. Employers leery of process which may encourage employees leave organization. c. Provision for periodic follow-up probably necessary to maximize value to most participants. d. Participants may not be encouraged to explore changing jobs or careers.	a. Specially designed to provide identity integration and psychological success through personal goal setting and enhanced self-awareness. b. If conducted within organization, benefits may be somewhat limited by need for program to serve employer's needs and by reluctance of employees to open up in groups of colleagues. c. This is the only design which explicitly requires small groups in order to maximize feedback and opportunity to validate data.
8. Life planning workshop: conducted outside organization.	a. Same as 7b through 7g. b. Low threat situation c. Potential for developing job-hunting skills possible.	a. Moderate cost to participants unless underwritten by employer. b. Normally do not provide occupational information on job markets, nature of jobs, etc. c. Same as 7b and 7c.	Same as 7a and 7c.

2.4.2. Effectiveness of Career Planning Process

It is difficult to assess the benefits obtained through career planning or to judge the quality of the career-planning practices of companies. Results are largely a matter of attitudes of the participating employees. The quality of the programs themselves is relative both to management's standards and to prevailing industry practices which are just taking shape and thus are an unsure basis for evaluative comparison (Walker, 1980:348).

Career planning has both positive and negative effects, as outlined in Figure 9. However, the problem is that some managers only see the risks in career planning and none of the potential rewards.

In some companies, supervisors are concerned that career planning will increase their workloads by requiring them to provide counseling and increased on-the-job development. Many already feel burdened by other personnel programs (appraisals, employee interviewing and selection procedures, job descriptions, etc.) and other administrative demands (budgeting, salary administration, etc) (Walker, 1980:348).

Career planning may also lead to increased strains on personnel systems such as training, educational assistance, internal placement, and job posting. Use of counselors may increase, and employees may request more information on job vacancies, pay practices, and career opportunities.

It is also feared that raised expectations may increase employee anxiety. Fundamental questions regarding personal strengths, weaknesses, and goals are sometimes surfaced for the first time. Workshops, workbooks, and counseling rarely equip individuals to deal adequately with these issues. Accompanying the expectation that life somehow will be different is general anxiety about the *uncertainty* of career decisions and future events (Walker, 1980:349).

Anxiety caused by raised expectations can be beneficial if it leads to increased employee motivation. But unfulfilled expectations can lead to disappointment and reduced organizational commitment. As a result, some employees may become demotivated, performance may falter, and some may seek work elsewhere.

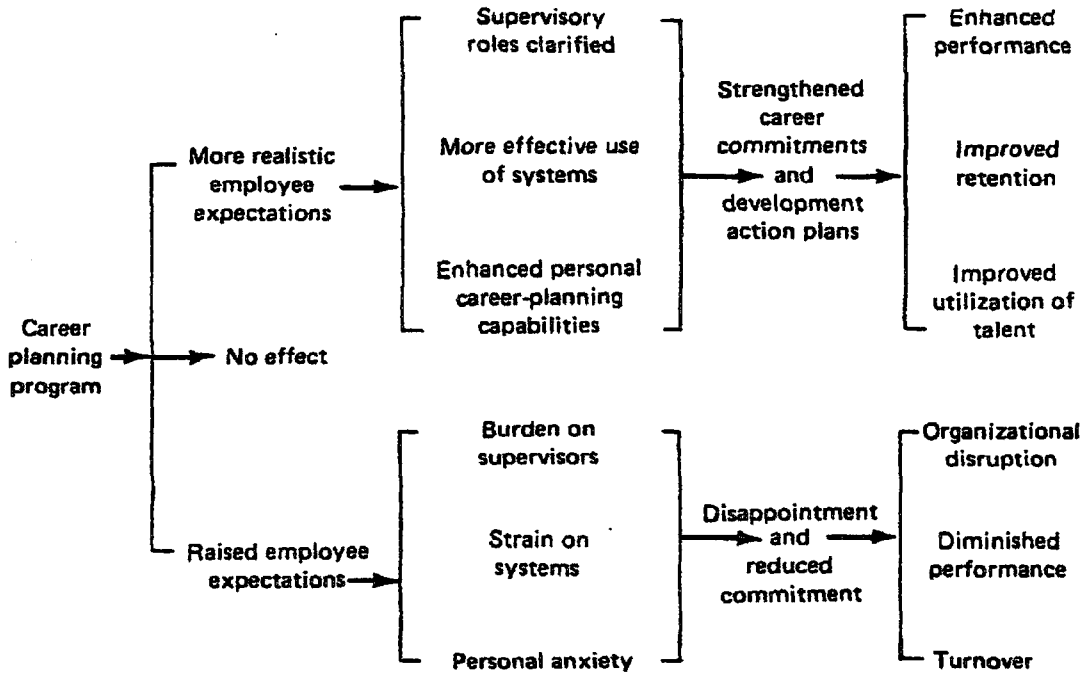

Figure 9. The Effects of Career Planning

Source: Walker, James W., Human Resource Planning, McGraw-Hill Publishing Company, New York, 1980, p.349.

The key to effective career planning is in developing more *realistic*—not *raised*—expectations. Companies that have been successful in their career-planning efforts have guided employees toward opportunities and resources that are actually available and reasonable.

They have tried to dispel the "up or out" view of a career and instead promote other options such as lateral careers and careers within specialized job areas or locations. An employee need not feel it necessary to be promoted to "get ahead." And employees need not change jobs to have career progress. Promotional opportunities are, by definition, limited in a hierarchical organization. If career planning focuses on personal development in the current job rather than on promotability, potential, and career mobility, it can help create more realistic career expectations, and help minimize potential dissatisfaction (Walker, 1980:349).

As shown in Figure 9, realistic expectations lead to a clarification of supervisory roles and responsibilities, more effective employee use of a company's career

resources, and stronger individual abilities to carry out career planning in a practical, meaningful way.

Career planning can also help equip employees to make *better* use of career development resources and systems. Many companies candidly report on expected vacancies and describe what the systems can and cannot do. Importantly, career planning gives management an opportunity to communicate how performance appraisal, training and development, performance incentives, compensation, and other systems relate to personal needs and plans. Employees are often unaware of many programs and do not realize how extensive the company's help really is (Walker, 1980:350).

Effective career planning does require information about job requirements, career paths, compensation opportunities, and available development resources. It is also important that employees learn about the company's business—what it is doing and why, its plans and objectives, and future career opportunities.

The key to a successful process is *depth* of information, of employee thinking and analysis, and of management attention to career management needs. Employees need to develop their *personal skills in career planning*, not merely seek help and direction. It should not be a superficial exercise, nor merely another development program. To be effective, career planning needs to be an intensive, voluntary, recurring, and self-directed process of self-examination and planning. It must lead to development of realistic personal goals and action plans (Walker, 1980:350).

2.5. The Relationship Between Career Development System and the Organizational Effectiveness

When evaluating the effectiveness of an organization, using short-term productivity criterion may give incorrect results. Unfortunately, this has been done for many years, because of different reasons like—impatience in getting quick results and benefits, the lack of a well prepared evaluation system etc.

Thus, it has been gaining more importance to provide long-lasting and steadily maintained productivity of organizations. Planning for and managing human resources

is emerging as an important determinant of organizational effectiveness. As organizations evolve, the complexity of the environments within which they operate will cause increased dependence upon the very people making up the organization. That is, a well prepared and applied career development system is necessary to meet the personnel requirements for today and future.

2.5.1. Increasing Importance of Career Planning and Development in Organizational Effectiveness

The increasing importance of Career Planning and Development in maintaining the organizational effectiveness can be given under two topics—*The Changing Managerial Job*, and *Changing Social Values.*

2.5.1.1. Changing Managerial Job

Organizations are becoming more dependent upon people, because they are increasingly involved in more complex technologies and are attempting to function in more complex economic, political, and sociocultural environments. The more different technical skills there are involved in the design, manufacture, marketing, and sales of a product, the more vulnerable the organization will be to critical shortages of the right kinds of human resources. The more complex the process, the higher the interdependence among the various specialists. The higher the interdependence, the greater the need for effective integration of all the specialties, because the entire process is only as strong as its weakest link (Schein, 1987; Dicle,1999).

The greatest opportunities for increasing productivity today lie in the improved utilization of managerial, professional, and technical employees. Capital, technology, and natural resources (particularly energy sources) have been increasingly used to reduce reliance on manual labor, and achieve productivity gains. Hence gains through industrialization and, more recently, automation, have been dramatic. While direct productivity has risen over the decades, the major expansion of jobs in the economy has been with the "knowledge workers," in indirect work: services, administration, research, engineering, marketing, etc (Walker, 1980:174).

In simpler technologies, managers could often compensate for the technical or communication failures of their subordinates. General managers today are much more

dependent upon their technically trained subordinates, because they usually do not understand the details of the engineering, marketing, financial, and other decisions that their subordinates are making. Even the general manager who grew up in finance may find that, since his day, the field of finance has outrun him, and his subordinates are using models and methods that he cannot entirely understand (Schein, 1987).

What all this means for the general manager is that he cannot any longer safely make decisions by himself; he cannot get enough information digested within his own head to be the integrator and sole decision maker. Instead, he finds himself increasingly having to manage the *process* of decision making, bringing the right people together around the right questions or problems, stimulating open discussion, ensuring that all relevant information surfaces and is critically assessed, managing the emotional ups and downs of his prima donnas, and ensuring that, out of all this human and interpersonal process, a good decision will result (Schein, 1987).

Employee involvement has long been seen as an important aspect of organizational life and a key to achieving increased organizational effectiveness and positive employee perceptions. There is an assumption held by many academics and managers that if employees are adequately informed about matters that concern them and they are allowed to make decisions relevant to their work, then there will be benefits for both the organization and the individual. On the other hand, if employees are not given sufficient information and work where little or no interaction with fellow employees occurs, then it is unlikely that employees would be able to carry out their work satisfactorily. Employees' perceptions of their level of involvement in the organization and the factors that contribute to these perceptions are therefore of considerable importance to researchers and practitioners (Shadur, 1995).

Bowen and Lawler (1992) present three types of involvement, namely, suggestion involvement, job involvement, and high involvement. The first category of involvement is called suggestion involvement and includes programs such as suggestion schemes. In general, suggestion involvement is fundamentally based on communication—a common ingredient of all the suggestion approaches. Bowen and Lawler (1992) note that suggestion involvement is composed of mechanisms that encourage employees to contribute ideas through formal suggestion programs with

management retaining decision-making control. One of Lawler's (1996) key elements of effective employee involvement requires the flow of information; in short, communication appears to be a key ingredient of effective employee involvement programs.

Eccles (1993) describes job involvement as including teamwork and the enhancement of productivity through finding better ways of organizing and carrying out tasks. Bowen and Lawler (1992) note that job involvement is accomplished through the extensive use of teams and is associated with complex service organizations. The added complexity requires the sharing of job roles and responsibilities through teamwork, with supervisors having less control in directing the activities of teams and taking on a more supportive role (Bowen & Lawler, 1992). The dynamics of teamwork is believed to relate to both the job characteristics and perceptions of employees that the work is meaningful, engaging, and significant (Bowen & Lawler, 1992; Eccles, 1993). According to Lawler (1991), work teams affect power, knowledge, information, and rewards, but he points out that these benefits can also mean that managers may be unwilling to implement work teams due to the threat they pose to the organization's members. Lawler also adds that teams can be the basic building block upon which high-involvement organizations can be constructed. Overall, management must be committed to creating an organizational framework in which teamwork can be effectively used to achieve job involvement and high involvement.

It is within the area of high involvement that the distinction between participation and involvement becomes clearer. High involvement, according to Lawler (1991), moves beyond the usual participative activities included in human relations and human resource (HR) approaches of old. Thus, high involvement is seen as including the assumptions that employees can be trusted to make important decisions about work activities, can develop the knowledge to make important decisions about the management of their work activities . . . [and] . . . when people make decisions about the management of their work, the result is greater *organizational effectiveness* (Lawler, 1991).

High involvement goes beyond suggestion involvement and job involvement by allowing employees to participate in decision making. Eccles (1993) points out that the assumption underlying worker participation in decision making is that the resulting decision will be of higher quality than if management were the primary decision makers. Eccles further states that advocates of high involvement or worker participation assume that better decisions may be made because lower level employees are better able to gauge what should be done to solve problems. In addition, lower level employees will be better motivated to solve problems and will remain closer to customers. It is thought that these factors lead to high-involvement organizations and are facilitated by organizations that allow workers to actively participate in decision making.

These new developments will increase the importance of career development systems in the organizations. The more complex organizations become, the more they will be vulnerable to human error. They will not necessarily employ more people, but they will employ more sophisticated highly trained people, in managerial and staff roles. The price of low motivation, turnover, poor productivity, sabotage, and intraorganizational conflict will be higher in such an organization. Therefore it will become a matter of economic necessity to improve human resource planning and career development systems (Schein, 1987).

2.5.1.2. Changing Social Values

Another reason why career planning and development will become more central and important is that changing social values regarding the role of work will make it more complicated to manage people. Several studies given below illustrate this point.

According to the findings of the researches performed by Schein, many organizations have given more importance to the traditional success syndrome of "climbing the corporate ladder" (Schein, 1975). Some alumni indeed want to rise to high-level general-manager positions, but many others want to exercise their particular technical or functional competence and rise only to levels of functional management or senior staff roles with minimal managerial responsibility. Some want security, others are seeking nonorganizational careers as teachers or consultants, while a few are

becoming entrepreneurs. Schein called these patterns of motivation, talent, and values "career anchors" which serve to stabilize and constrain the career in predictable ways. Organizations must develop multiple ladders and multiple reward systems to deal with different types of people (Schein, 1975).

The employees throughout the organizational hierarchy and at all career stages are demanding more from their employers than simply a paycheck and job stability. Increasingly, they also are seeking such psychological rewards as challenging work, personal fulfillment, self-respect, and the opportunity to grow and develop. Similarly, many professional and managerial employees are now questioning their organization's right to unilaterally affect their lives through such career development decisions as geographical reassignments and job transfers. Also, many employees are seeking to obtain a better balance between their work life, family life, and personal life. For still other employees, career planning is viewed as a way of alleviating the problem of professional obsolescence and a means to maximize their prospects for career growth (Hall, 1987).

Studies of young people entering organizations in the last several decades suggest that work and career are not so central a life preoccupation as they once were. Because of a prolonged period of economic affluence, people see more options for themselves and increasingly exercising those options. In particular, one sees more concern with a balanced life in which work, family, and self-development play more equal roles (Maanen, Bailyn, and Schein,1977).

Research evidence is beginning to show that personal growth and development is a life-long process and that predictable issues and crises come up in every decade of people's lives. Organizations will have to be much more aware of what these issues are, how work and family interact, and how to manage people at different ages (Sheehy, 1974).

An excellent summary of what is happening in the world of values, technology, and management is stated by Elmer Burack (1975) as: The leading age of change in the future will include the new technologies of information, production, and management, interlaced with considerable social dislocation and shifts in manpower inputs.

Technological and social changes have created a need for more education, training, and skill at all managerial and support levels. The lowering of barriers to employment based on sex and race introduced new kinds of manpower problems for management officials. Seniority is becoming to mean relatively less in relation to the comprehension of problems, processes, and approaches. The newer manpower elements and work technologies have shifted institutional arrangements: The locus of decision making is altered, role relationships among workers and supervisors are changed (often becoming more collegial), and the need to respond to changing routines has become commonplace.

These shifts have been supported by more demanding customer requirements, increasing government surveillance (from product quality to antipollution measures), and more widespread use of computers, shifting power bases to the holders of specialized knowledge skills (Burack, 1975).

2.5.2. An Effective Career Development System

Walker and Gutteridge (1979) concluded that three issues were more important influences in career development. First, career development may be viewed as an effective response to a series of human resource problems, such as excessive turnover among valued managers and professionals, plateaued workers, the need to increase work force productivity, and the necessity of reconciling unrealistic employee career expectations with stabilizing or declining employment opportunities. A second institutional pressure is the increased desire on the part of senior management in many firms to develop and promote employees from within. In many organizations, this increased reliance on promotion from within has been difficult to achieve because of a perceived shortage of high-quality promotable talent. A final factor has been management's expressed desire to aid employee career planning as a means of increasing individual commitment and to help ensure that the right person is in the right job, both of which are assumed to bear a positive relationship to work force productivity.

Thus, it can be concluded that organizations implement career development programs to maintain their organizational effectiveness, although their priorities vary from one organization to another.

In addition to the differences in the priorities, the barriers faced in implementing career development programs vary from one organization to another. And, most of the time there is a wide gap between the ideal and real situation of current practices. These obstacles may be subdivided into individual versus organizational categories. For instance, not all employees will enthusiastically endorse career development programs: Some will perceive that career development is primarily or exclusively an organizational responsibility, while others will conclude that their career progress is simply a matter of luck or of being in the right place at the right time. Still others will argue that there is no sense in career planning, since one cannot foresee the future. Finally some individuals will find the self-assessment process inherent in career planning threatening and/or may be reluctant to make the changes required to implement a career strategy (Hall, 1987).

In most organizations, there are also a number of institutional practices and beliefs that mitigate against the successful implementation of career development program (for example, cream rises to the top, no one ever helped me, we know what is best for our employees, and so on). In addition to these negative attitudes, there are also likely to be concerns that career development will be too expensive, that it will place an unreasonable strain on other personnel systems, or that it will create unrealistic employee expectations. Also, many supervisors may be unwilling to assume the responsibilities often demanded of them in organizational career development programs. Another institutional barrier is the credibility gap that may exist because employees view career development as simply another fad in a long line of new personnel programs. A final barrier is the danger inherent in any organizational change that top management will push for immediate results from the career development program and will scrap it if the results are not forthcoming in short order (Hall, 1987).

In sum, probably the single greatest institutional problem in implementing an effective career development program is cultural inertia. Career development represents something more than business as usual for both employees and

organization. If this new philosophy is simply grafted onto a traditional system that deemphasizes individual responsibility, the result is likely to be a career system that is more lip service than results. However, these institutional barriers need not negate the positive pressures for change. The challenge is to design and implement an operational career development system that accomplishes specific system objectives (Hall, 1987).

The career development systems give the individuals the power to handle ambiguities and difficulties they might face in their careers. This will increase the morale and motivation of the individuals which are essential for organizational effectiveness.

The career development systems will match the individual and organizational needs at one point and this matching process will increase the organizational effectiveness. Thus, while specific career development tools and techniques will vary from one organization to another, there is a serious of generic elements that must be incorporated into any comprehensive career system. These elements include: (1) individual self-assessment data concerning employee attitudes, interests, skills/abilities/competencies, values, and the like, (2) organizational data concerning such factors as available career opportunities and associated skill requirements, projected organizational employment needs, the organizational value system, and the availability of various career tools, (3) systems for inputting data from individual to organization and from organization to individual, (4) systems to ensure meaningful dialogue and feedback between the organization concerning the match between employee career needs and organizational employment opportunities, and (5) developmental programs that provide opportunities for personal and professional growth in line with individual career strategy (Hall, 1987).

The organizations use these career development tools in order to provide more involvement of their employees to the career issues and develop them in accordance with their preferences and goals. Thus, they intend to increase the effectiveness of the employees and then of the organization.

Some of the reasons for ineffectiveness of the career development systems were listed by Hall (1987) as follows;

1. The career development effort was technique driven ("let's implement a career planning workshop") rather than responsive to desired programmatic objectives. Thus, while much activity (such as employee participation in career planning workshops) may have occurred, there was limited impact on overall employee career development.

2. The program was designed an implemented by a charismatic employee development specialist but was not integrated into the organization's value system. Thus, because the career development system is person dependent, when the career resource leader departs the organization or moves on to another assignment, the career development program dies for lack of leadership.

3. The career development system was viewed as a personnel department activity and thus peripheral to the priorities of line managers, often leading to a lack of employee participation.

4. There was a deterioration in the organization's business indicators, and the career development program was eliminated as part of the effort to cut back on unnecessary expenses.

5. Career development was viewed by managers and employees alike as a philosophical or academic exercise that bore little relationship to the bottom-line organizational objectives.

6. The career development program was designed as stand-alone activity and therefore was not linked to other human resource processes, such as performance appraisal, job posting, management succession planning, and training and development.

Organizations have to take these negative factors into account while planning and implementing their career development systems.

2.5.3. Indicators of an Effective Career Development System

As stated by Gutteridge and Otte (1983), the primary key to making career development effective is an institutional commitment to using specific practices to

satisfy the need of particular employee groups and resolve identified human resource issues rather than establishing a general program drive by a desire to implement particular career development techniques. That is, organizational career development programs should be issue and objective oriented rather than technique driven. Table 5 summarizes some of the possible individual and organizational indicators of program effectiveness.

Table 5. Indicators of Career Development Program Effectiveness

Source: Hall, Douglas T., "Career Development in Organizations", Jossey-Bass Publishers, San Francisco, 1987, pp. 76)

A. Goal Attainment

Achievement of prescribed individual and organizational objectives on qualitative as well as quantitative dimensions.

Individual	Organizational
1.Exercise greater self determination	1.Improve career communications between employees and supervisors
2.Achieve greater self-awareness	2.Improve individual/organizational career match
3.Acquire necessary organizational career information	3.Enhance organization's image
4.Enhance Personal growth and development	4.Respond to equal employment opportunity pressures
5.Improve goal-setting capability	5.Identify pool of management talent

B. Actions/events completed

1.Employee use of career tools (participation in career workshops, enrollments in training courses)
2.Career discussions conducted
3.Employee career plans implemented
4.Career actions taken (promotions, cross-functional moves)
5.Management successors identified

C. Changes in performance indexes

1.Reduced turnover rates
2.Lower employee absenteeism
3.Improved employee morale
4.Improved employee performance ratings
5.Reduced time to fill job openings
6.Increased promotion from within

D. Attitudes/Perceptions

1.Evaluation of career tools and practices (participant reaction to career workshop, supervisor's evaluation of job-posting system)
2.Perceived benefits of career system
3.Employees express career feelings (responses to career attitude survey)
4.Evaluation of employee career-planning skills
5.Adequacy of organizational career information

Among these indicators, majority of them belong to the individual issues. That means, the career development systems try to encourage the individuals to be involved

in every stages of the work they perform. And this involvement occurs at four inter-supportive stages. First, the individual shows interest to define his or her goals. Second, the individual makes and then implements his or her plans. Third, individual becomes successful and increases his or her performance. While the personal performance increases the overall organization's performance increases simultaneously. And finally, the individual develops some beliefs and expectations about his or her career and the career system. If performance is a function of effort and competence, it is important that the individuals believe that they are able to perform at the desired level (Nadler and Lawler, 1971). Effort depends on the expectancy that effort will result in accomplishment of defined tasks, the expectancy that accomplishment will obtain or avoid certain outcomes or rewards, and positive or negative feelings about these outcomes or rewards. This "expectancy theory" of performance motivation says that employees' perceptions and values are important determinants of the effort they will expend.

Similarly, *Social Cognitive Theory* developed by Bandura (1986) focuses on the processes through which (a) academic and career interests develop, (b) interests, in concert with other variables, promote career-relevant choices, and (c) people attain varying levels of performance and persistence in their educational and career pursuits. While incorporating a variety of person, contextual, and behavior variables, it highlights a few central mechanisms and paths through which these variables affect career development outcomes.

To conceptualize the complexly interacting influences among persons, their behavior, and their environments, Social Cognitive Framework (SCCT) was developed by Lent, Brown and Hackett (1994) adopting Bandura's (1986) triadic reciprocal model of causality. This model holds that person attributes (such as internal cognitive and affective states), external environmental factors, and overt behavior each operate as interactive sets of variables that mutually influence one another. In its analysis of the person attributes within the triadic causal system, SCCT highlights three intricately linked variables through which individuals help to regulate their own career behavior: self-efficacy beliefs, outcome expectations, and personal goals.

The social cognitive framework conceptualizes career-related interest, choice, and performance processes within three interlocking, segmental models (Lent, Brown and Hackett, 1994).

2.5.3.1. Career Related Interests

Children's and adolescents' environments expose them, directly and vicariously, to a variety of activities (such as crafts, sports, music, and mechanical tasks) that have potential career relevance. In addition to their exposure to such activities, young people are selectively reinforced by parents, peers, teachers, and other important persons (eventually including themselves) for pursuing certain activities from among those that are possible, and for achieving satisfactory performances in chosen activities. Through continued activity practice and feedback, children and adolescents refine their skills, develop personal performance standards, form a sense of their efficacy for particular tasks, and acquire certain expectations about the outcomes of their performance.

Interest model holds that self-efficacy and outcome expectations regarding particular activities have important effects on the formation of career interests (i.e., one's particular pattern of likes, dislikes, and indifference regarding various occupations and career-relevant tasks). In particular, SCCT states that people form enduring interest in an activity when they view themselves as competent at it and when they anticipate that performing it will produce valued outcomes (Bandura, 1986; Lent, Larkin, and Brown, 1989). Conversely, it is difficult to imagine interests flourishing in activities for which people perpetually doubt their efficacy or harbor negative outcome expectations; indeed, people are likely to avoid or develop aversions to such activities.

Emergent interest, self-efficacy, and positive outcome expectations in relation to a particular activity are hypothesized to promote goals for further activity exposure (Lent, Brown and Hackett, 1994). That is, as people develop an affinity for an activity at which they feel efficacious and expect positive outcomes, they are likely to form goals for sustaining or increasing their involvement in the activity. These goals, in turn, increase the likelihood of subsequent activity practice. Practice efforts give rise to a particular pattern of attainments (e.g., successes, failures), which then serve to revise self-efficacy and outcome expectations within an ongoing feedback loop.

This process repeats itself continuously throughout the life span, although it is perhaps most fluid up until late adolescence or early adulthood, at which point interests tend to stabilize. Although broad occupational interests are often quite stable in adulthood (Hansen, 1984), SCCT is sanguine about the prospect of interests (both vocational and avocational) changing and shifting over time. Change versus stability in basic interests is determined by such factors as whether activities that are initially preferred become restricted, and whether people are exposed (or expose themselves) to compelling learning experiences that enable them to expand their sense of efficacy and positive outcome expectations into new activity spheres.

Fatherhood, for example, provides an occasion for many men to revisit their interests in social pursuits, such as helping and teaching. Similarly, changes in work assignments (e.g., taking on managerial responsibilities) and advances in technology (e.g., the proliferation of personal computers in the workplace) offer opportunities for adults to cultivate wholly new or dormant interests. A key issue, once again, involves the extent to which people come to view themselves as efficacious and to view the activity as offering valued rewards.

SCCT posits that aptitudes (or abilities) and values are also important elements in the process of interest formation, but that their effects are funneled primarily through self-efficacy and outcome expectations. Research has suggested, for instance, that people's occupational interests are less a reflection of their objective capabilities than of their perceived capabilities (Barak, 1981). Work values are incorporated within SCCT's concept of outcome expectations. That is, the latter may be conceptualized as a combination of people's preferences for particular work conditions and reinforcers such as status or money, along with the extent to which they believe these reinforcers are offered by particular occupations.

2.5.3.2. Occupational Choice

As in Holland's (1985) theory, it is assumed in SCCT that, under supportive environmental conditions, people's career interests tend to orient them toward particular fields wherein they might perform preferred activities and might interact with others who are like themselves in important ways. People with social interests, for

instance, are likely to gravitate toward socially oriented occupations that allow them to work with others in a helping or a teaching capacity. However, it is apparent that people's career choices do not always reflect their interests and that their environments are not always supportive (Betz, 1989; Holland, 1985). There are many instances in which choice may be constrained, for example, by economic need, family dictate, discrimination, or educational considerations. In such instances, career choice may be less an expression of personal interests than of other factors. SCCT, therefore, highlights the function of additional variables that influence the choice process, either apart from or in concert with interests.

As presented in the interest model, self-efficacy and outcome beliefs are seen as jointly promoting career-related interests. Interests foster corresponding career choice goals (e.g., intentions to pursue a given career path), which in turn motivate actions designed to implement one's goals (e.g., enrolling in a particular course of training). These actions are followed by a particular pattern of performance experiences, including successes and failures. For instance, after declaring an engineering major, a student may have difficulty passing the required physics courses. This experience may prompt the student to revise his or her self-efficacy beliefs, leading to a change in goals (e.g., selecting a new major).

In addition to interests, choice behavior may be influenced directly by self-efficacy and outcome expectations. People are likely to adopt and implement particular career goals for which they view themselves to be efficacious and that they perceive as leading to desirable outcomes, such as adequate pay and working conditions (Bandura, 1993). These additional paths help to explain career choice in instances where people must compromise their primary interests. In such cases, choice may be guided by such considerations as what work is available, whether the individual thinks he or she is competent to perform it (self-efficacy), and whether the expected outcomes (e.g., pay) are worth the effort.

SCCT also posits that certain features of the opportunity structure which is provided by the organization influence people's ability to translate their interests into career goals and their goals into actions. In particular, people's career interests will be more likely to blossom into goals (and they will be more likely to act on their goals) when

they perceive beneficial environmental conditions (e.g., presence of ample support, few barriers) as opposed to nonsupportive or hostile conditions.

2.5.3.3. Career-Related Performance

SCCT is concerned with two primary aspects of career performance: the level of attainment individuals achieve in their work tasks (e.g., measures of success or proficiency) and the degree to which they persist, despite obstacles, at a particular work activity or career path (e.g., perseverance at problem solving, job stability). Performance is assumed to be influenced substantially by ability, self-efficacy, outcome expectations, and performance goals. Ability, as assessed by achievement, aptitude, or past performance indicators, is hypothesized to affect performance both directly and indirectly through its effects on self-efficacy and outcome expectations. Self-efficacy and outcome expectations, in turn, affect the level of performance goals that people set for themselves. Higher self-efficacy and anticipated positive outcomes promote higher goals, which help to mobilize and sustain performance behavior.

Consistent with Bandura's (1986) triadic-reciprocal view of interaction, SCCT posits a feedback loop between performance attainments and subsequent behavior. In a dynamic cycle, mastery experiences promote development of abilities and, in turn, self-efficacy and outcome expectations. As noted earlier, people develop their abilities, self-efficacy, outcome expectations, and goals within a sociocultural context that is substantially affected by such factors as the structure of opportunity (e.g., economic status, educational access, social supports), gender role socialization, and community and family norms.

It should also be emphasized that self-efficacy is seen as providing an important complement to (but not a substitute for) ability. Complex performances require adequate capabilities as well as self-efficacy, which helps people to organize and orchestrate their talents. Self-efficacy that is optimistic yet reasonably congruent with assessed competencies promotes effective performance behavior. Problems are likely to result, however, when individuals either do not possess sufficient ability to succeed at a given course of action or when they greatly misconstrue their efficacy. Underestimates of efficacy relative to documented ability diminish achievement

behavior; when people doubt their competence they may give up more easily, set lower goals, suffer from debilitating performance anxiety, and avoid challenges they are capable of meeting. On the other hand, serious overestimates of self-efficacy may embolden people to attempt tasks for which they are ill-prepared, increasing the likelihood of failure and discouragement.

SCCT's analysis of performance behavior has many implications for career and academic interventions. For example, efficacy-enhancing procedures may be most appropriate for clients exhibiting vocational performance problems who possess adequate skills but weak efficacy beliefs in a given performance domain. For such clients, Brown and Lent (1996) recommend reconsidering past performance experiences, providing new mastery experiences, and focusing on how clients are processing efficacy-relevant information.

Other practical implications may also be derived from SCCT's performance model. For instance, counseling for performance problems could entail focusing on the nature of clients' goals and outcome expectations. Regarding the former, social cognitive theory suggests that performance (e.g., study) goals that are specific, broken into subcomponents, and set proximally to actual behavior tend to be more influential than goals that are amorphous, global, or distal (Bandura, 1986). Finally, where performance problems seem to be linked both to deficient skills and to weak self-efficacy, extensive remedial skill-building efforts may be required, or clients might be helped to consider alternative career options that better correspond with their existing skills (Lent, Brown and Hackett, 1996).

2.5.4. Research Model: Effectiveness of the Career Development System of the Army Aviation Maintenance Personnel

In order to analyze the career development system of the Army Aviation Maintenance Personnel, a research model was developed using the concepts stated in the preceding headings. The indicators of an effective career development system stated by Schein (1987) were adapted to the Social Cognitive Theory developed by Bandura (1986) and then the research model which consists of three dependent variables was developed.

An effective career development system provides the necessary career development tools and the circumstances so that the individuals show *interest* to the career issues and make plans; *make choices* and implement their plans; and *increase their performance*; using the feedback loop in this system they can reorient their plans, choices and performances.

Using the independent variables, also, the *significant career-related factors* that affect the career development and the *individual needs, judgments and expectations* about the career development system are added to the model.

The sub concepts and factors affecting the concepts are shown in Figure 10.

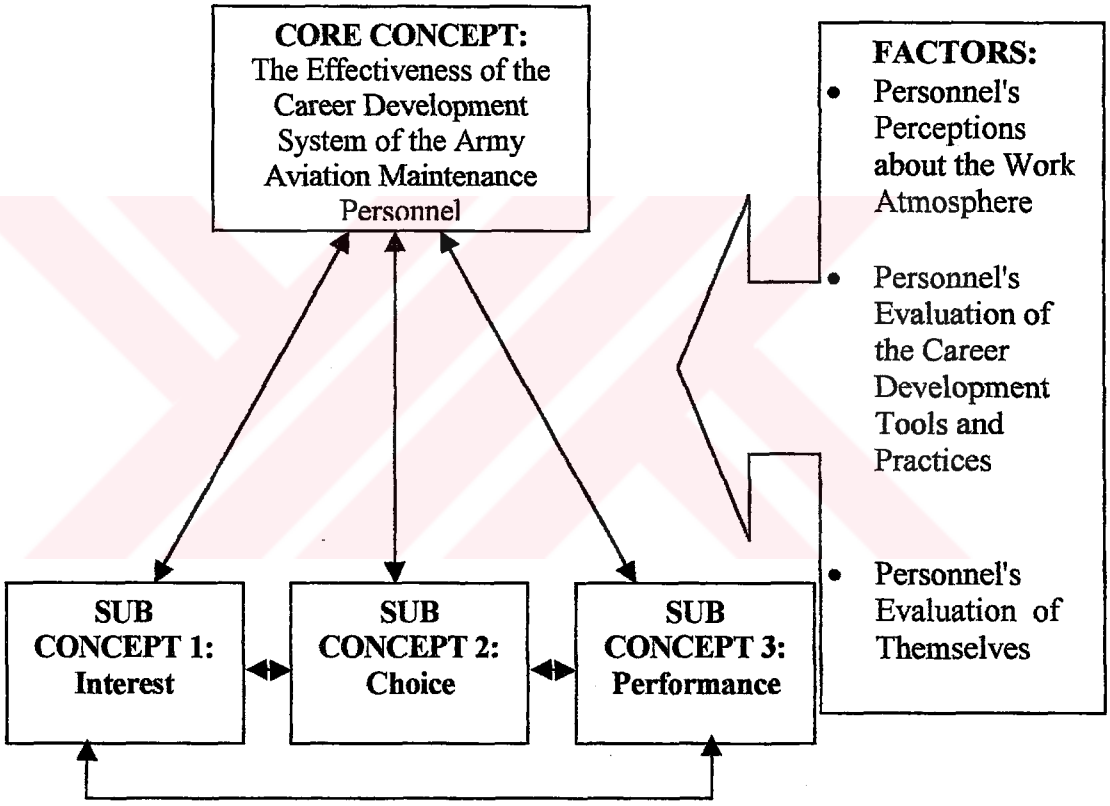

Figure 10. The Research Model: Effectiveness of the Career Development System of the Army Aviation Maintenance Personnel

2.5.4.1. Variables Used In the Research Model

The label and the definitions of the variables used in the research model can be given under two topics; dependent and independent variables.

2.5.4.2. Dependent Variable

In the research model, dependent variable is given as Core Concept, which consists of three sub-concepts.

- **Core-Concept (CC)—The Effectiveness of the Career Development System of the Army Aviation Maintenance Personnel**; is an expression of the sum of Interest, Choice and Performance sub-concepts.

- **Sub-Concept1 (SC1)—Interest**; is an expression of level of effort the individual spends on the career issues before making decisions.

- **Sub-Concept2 (SC2)—Choice;** is an expression of the degree in participation to the career development process and level of determining and then implementing own career plans and paths of the personnel.

- **Sub-Concept3 (SC3)— Performance**; is an expression of the level of success, satisfaction, absenteeism, and use of creativity of the personnel.

2.5.4.3. Independent Variables

In the research model, independent variables are determined as the perceptions and attitudes of the personnel about the work atmosphere, career development system and personnel themselves.

- **Personnel's Perceptions about the Work Atmosphere**

The work atmosphere, or climate in other words, has found to have great affects over the involvement of the personnel to the career issues. Organizational climate helps to set the tone of the organization and can work to facilitate or impair employee involvement (Shadur; Kienzle and Mark, 1999). Organizational climate refers to the "shared perceptions of organizational policies, practices, and procedures, both formal and informal" (Reichers and Scheider, 1990). In this research, the perceptions of the personnel about the work atmosphere were analyzed with regard to its level of *Competitiveness, Dynamism, Need for High Skill and Safety, Maintaining Necessary Authority, Initiative and Support for Career Development.*

- **Personnel's Evaluation of the Career Development Tools and Practices**

The perceptions of the personnel about the tools provided by the career development system have great influence over the involvement and the development of the personnel. These perceptions and evaluations will motivate and guide the personnel through their careers. However, the tools provided by the career development system will not be sufficient without the positive feelings and perceptions of the personnel about them. The organizations have to find better ways for their personnel to benefit from these tools equally and efficiently, so that, the needs of the organizations and the personnel are matched.

In this research, the perceptions and the evaluations of the personnel about the career development tools were analyzed with regard to its level of *Clarity of Career Plans and Paths, Clarity of Definitions of Tasks and Responsibilities, Feedback from Superiors and Career Counseling System, Effects of Promotion, Reward, Punishment and Assignment Systems, Maintaining Equal Benefit from Career Opportunities, Amount of Courses Taken in and outside Turkey.*

- **Personnel's Evaluation of Themselves**

The evaluations of personnel about themselves were found to have either linear or curvilinear impact over career interest, choice and performance (Lenox and Subich, 1994; Bandura, 1986). If personnel feel themselves ready and qualified when making decisions about their career they will be more determined about their demands, more ambitious to take risks and more realistic about their capacity.

In this research, the evaluation of the personnel themselves were analyzed with regard to perceived level of *Skill, Knowledge, Experience, Specialty, Self Confidence, and Self Esteem.*

2.5.4.4. Demographic Factors

Some demographic factors were also used in the research to investigate if there is any relation with the core concept. The demographic factors used in the research model are determined as follows;

- Current position in the organization
- Current Rank
- Age
- Years spent in the organization
- Level of education
- Net income (monthly)
- Marital status
- Number of children (if any)

CHAPTER 3

3. EVALUATION OF CAREER DEVELOPMENT SYSTEM OF ARMY AVIATION MAINTENANCE PERSONNEL

3.1. Non Commissioned Officers as Army Aviation Technicians

In order to analyze the effectiveness of the current career development system of Army Aviation Maintenance Personnel, the Non Commissioned Officers (NCOs) who work as Army Aviation Technicians were used in the research.

Some important issues regarding Non Commissioned Officers (NCO) can be expressed under the following topics.

Non Commissioned Officer education in Turkish Army has been given at different education centers like "Branch Schools," "Language Schools," "EDOK–Training and Doctrine Command," "Military or Civilian Factories" in Turkey and foreign countries.

Every Army branch has a separate Branch School located in different parts of Turkey. Almost every branch school has similar education programs, which differ from each other in branch-related lessons. The length of basic education which is given to the NCO candidates is nearly nine months. The length of other courses given after graduation varies from one week to six months according to its content.

The Army Aviation Branch School is located at Güvercinlik in Ankara. In this school basic NCO course is given periodically once in a year and other courses are planned and given when necessary.

To become an Army Aviation Technician, NCO candidates come from three different sources. First, from the military high schools which are specially organized for preparing NCO candidates; second, from civilian technical high schools; and third, from civilian two-year colleges.

The NCO candidates are not categorized according to different specialties when they graduate and they are assigned to their first units, which are located in eight cities in Turkey. Since they only have basic education and training, they are given additional courses by their units to meet the requirements of the unit. Thus new NCOs find themselves in a specialty by chance rather than intentionally defining their own interests.

The personnel assignment office at Turkish Land Forces Command (TLFC), has been performing later assignments according to some criteria like; year spent in that location, personnel needs in some locations, some health or other excuses and individual demands if possible to meet. Personnel are assigned to other units when they meet some of criteria stated above and they continue their career development according to the needs of the units they are assigned.

The assignment of the personnel occurs in a frequency of three to eight years according to the facilities–university, transportation etc– available in that location. During this period, they also may be assigned internally within that unit and because these internal assignments are not, sometimes, followed by the personnel assignment office at TLFC, the personnel may work at a position out of their specialties.

Most of the technical training necessary for the technicians is given through courses organized in Turkey. However, the rapid development in the equipment, devices and systems used in aviation, necessitates some courses organized in foreign countries. Most of the training given in Turkey is organized at the units where the personnel serve–called "on-duty training", while the others are organized at Army Aviation School and Depot Maintenance Center (Military Aviation Factory) in Ankara.

As the years pass, NCOs are promoted to the next rank easily when they complete their three-year rank-waiting period regardless of their performance. This promotion process, most of the time, is not directly related with the position of the personnel where they serve.

Also, after nine years of service NCOs have the right to become an officer after passing some exams and finishing Officers Basic Course, but this is a quite difficult process because the quota is so limited.

NCOs have to complete a fifteen-year compulsory service. At the end of the compulsory service period some of the NCOs are leaving the military service to work for civilian aviation if they got some special competencies valuable outside. On the other hand, some of them are waiting for their retirement opportunity, which they gain nearly at the age of 40.

NCOs have a high level of job security, most of them are completing their service and getting retirement opportunity unless a very abnormal situation occurs.

Some tasks performed by NCOs can be listed as;

- Helicopter / plane technician
- Technician in an AVUM (Aviation Unit Maintenance Level) unit
- Technician in an AVIM (Aviation Intermediate Maintenance Level) unit
- Technician in a DEPOT (Aviation Depot Maintenance Level) unit
- Production Control Specialist
- Quality Control Specialist
- Technical Inspector
- Section Commander
- Chief of technicians

Also, after nine years of service the NCOs who meet the language and other administrative standards can be assigned to the tasks in foreign countries for two years.

3.2. Measured Characteristics of the Sample

The sample, which the analyses were based on, randomly selected from three units at Aviation School to prevent a probable skewness in data set.

The sample consisted of the personnel at *positions* shown in Table 6. Among the respondents majority of them were Unit Level (AVUM) maintenance personnel, which nearly represented the real concentration in the Army Aviation Maintenance Work.

However, the sample did not cover all the other possible positions, so the percentage for the Intermediate Level Maintenance Personnel was found to be high while the others are nearly correct in percentage.

Table 6. Respondents' Distribution with Respect to Their Current Positions

Current Positions	Frequency	Proportion to the total sample
Unit Level Maintenance Technician	49	0.653
Intermediate Level Maintenance Technician	20	0.267
Avionics Technician	4	0.053
Section Commander	2	0.027
Total	75	1.000

The respondent's frequency distribution with respect to Their *Ranks* is shown in Table 7. Among the respondents the distribution of personnel with respect to their ranks was found to be almost equally distributed up to the rank of Command Sergeant which is a rank many of the NCOs leave Army if they can find a job outside army.

Table 7. Respondents' Distribution with Respect to Their Ranks

Current Ranks	Frequency	Proportion to the total sample
Sergeant (Astsubay Çavuş)	14	0.187
Staff Sergeant (Kıdemli Çavuş)	17	0.227
Sergeant First Class (Üst Çavuş)	14	0.187
Master Sergeant (Kıdemli Üst Çavuş)	9	0.120
First Sergeant (Başçavuş)	18	0.240
Command Sergeant (Kıdemli Başçavuş)	3	0.040
Total	75	1.000

The respondent's frequency distribution with respect to *Age* is shown in Table 8. The respondents' distribution with respect to *Age* show similar characteristics with the

rank distribution, but not the same, since some of the personnel had been promoted earlier because they have completed university level education.

Table 8. Respondents' Distribution with Respect to Age

Ages	Frequency	Proportion to the total sample
18 - 21	12	0.160
22 - 25	23	0.307
26 - 29	14	0.187
30 - 33	10	0.133
34 - 37	12	0.160
38 +	4	0.053
Total	75	1.000

The respondents' frequency distribution with respect to *Years of Service* is shown in Table 9. The respondents' distribution with respect to Years of Service show that half of them had less than 7 years of service. In current circumstances a technician works at one unit at least for three years, that is most of the technicians have been assigned to two units or less until now. Since the job rotation is quite important for experience in the maintenance work, years of service has great importance for Army Aviation maintenance branch.

Table 9. Respondents' Distribution with Respect to Years of Service

Years of Service	Frequency	Proportion to the total sample
1 - 3	20	0.267
4 - 6	17	0.227
7 - 9	9	0.120
10 - 12	10	0.133
13 - 15	9	0.120
16 +	10	0.133
Total	75	1.000

The respondent's frequency distribution with respect to their *Education Level* was as shown in Table 10. Majority of the respondents were high school graduates, which means that they had not continued their education after starting to serve as a Non Commissioned Officer. The number of university graduates are quite low but, the number of students in the universities are high respectively.

Table 10. Respondents' Distribution with Respect to Education Level

Education Level	Frequency	Proportion to the total sample
High School	53	0.707
Technical High School	2	0.027
Two-Year College	8	0.107
Still Student in a University	10	0.133
University Graduate	2	0.027
Total	75	1.000

The respondents' frequency distribution with respect to *Income Level* is shown in Table 11. The income level of the respondents are quite high with respect to other Army Branches because of the extra flight payment. Majority of them had a monthly income of less than 370 million TL.

Table 11. Respondents' Distribution with Respect to Income Level

Income Level (million TL.)	Frequency	Proportion to the total sample
310 - 329	25	0.333
330 - 349	11	0.147
350 - 369	22	0.293
370 - 389	8	0.107
390 - 409	6	0.080
410 +	3	0.040
Total	75	1.000

The respondents' frequency distribution with respect to *Marital Status* and *Number of Children are* shown in Table 12. More than half of the respondents were found to be married. Among the married respondents just 0,106 percent of them were found not to have a child and 0,04 percent of them were found to have 3 or more children.

Table 12. Respondents' Distribution with Respect to Marital Status and Number of Children

Marital Status	Frequency	Proportion to the total sample	Number of Children	Frequency	Proportion to the total sample
Unmarried	32	0.427	None	32	0.427
Married	43	0.573	None	8	0,106
			1 - 2	15	0,200
			2 - 3	17	0,227
			3 +	3	0,040
Total	75	1,000	Total	75	1.000

3.3. Data Collection Methods

In order to test the research model and collect data about the opinions of personnel about the current career development system a questionnaire consisting of 48 questions was prepared and applied on the sample (the questionnaire is presented in App. A.).

In the questionnaire, questions related with the dependent and independent variables are prepared and then placed randomly to prevent directing the respondents to any direction while answering. Among 48 questions, 15 of them were prepared as sub-concept (dependent variable) questions, 25 of them were prepared as factor (independent variable) questions and 8 of them were prepared as demographic questions.

In order to convince respondents to the genuineness of the inquiry made, the demographic questions were presented at the end of the questionnaire. Also, in order not to reveal the identity of the respondents, they were reminded to answer the question regarding *the current position* in a general manner like using the answer of *Section Commander* instead of using the answer of *1st Section Commander*.

In the questionnaire, mostly, close-ended questions were preferred. However, in questions numbered 10, 11 and demographic questions open-ended questions were used to cover all possible answers.

For each close-ended question, the Likert type scale was used, and six choices were given to force the respondent to make a precise decision. Then, the data collected from the close-ended questions were coded easily for analyses.

For open-ended questions, first of all, all answers given for them were listed and then, similar answers were categorized into groups. Finally, these answers were coded according to these groups.

The variables and their corresponding question numbers are given in Table 13. In this table the corresponding question numbers used in the questionnaire are given according to their variables used in the research model.

When applying the questionnaire, the randomly selected personnel took the questionnaire all together, at the same place and time. Thus, the percentage of the response to the questionnaire was 100 percent and the questionnaire application was completed in a very short period time. Any doubts that the respondents had regarding any question were clarified on the spot. By explaining the purpose and topic of the research, respondents were motivated to give their honest answers.

Table 13. The Variables and The Corresponding Questions

Variables		Question Numbers
Dependent Variables (SC)	**Sub Concept 1: *Interest***	1, 8, 24, 32
	Sub Concept 2: *Choice*	12, 16, 19, 22, 25
	Sub Concept 3: *Performance*	6, 14, 27, 30, 34, 38
Independent Variables (F)	**Personnel's Perceptions About The Work Atmosphere**	4, 9, 21, 28, 31
	Personnel's Evaluation of The Career Development Tools and Practices	2, 5, 10, 11, 13, 15, 17, 23, 26, 33, 36, 37, 39, 40
	Personnel's Evaluation of Themselves	3, 7, 18, 20, 29, 35
Demographic Factors (D)		41, 42, 43, 44, 45, 46, 47, 48

The purpose of randomly selecting the sample was to get highly generalizable findings to the whole population.

3.4. Analytical Procedure

All statistical analyses on the collected data were performed using SPSS package program on a PC.

The tests performed for data can be stated as; Factor Analyses for factor questions, Kaiser-Meyer-Olkin Test for sample adequacy, Bartlett Test for understanding the characteristics of the data provided from the sample population.

The factors then, were regrouped to decrease the number of factors, and the new groups were tested in Varimax Rotated Factor Matrix.

The reliability of the Core and Sub Concept questions, factor questions, were tested using Cronbach's Alpha value. After this test, unreliable factor questions were eliminated.

Then, Multiple Regression Analyses were applied on Core Concept and Factor questions. By using the Pearson Correlation Coefficient, the degree of the linear relation between them and, the Multi Colinearity of the factors were tested.

Continuing the Regression Analyses, the explaining powers of the factors were tested using Multiple R, R^2 and Corrected R^2 values. Then using the F test the relation were tested if it is significant or not.

Using the T Test, the coefficients of regression were tested if they are significant or not. Using the Durbin-Watson Test, the results were tested if they are really meaningful or not.

The Demographic Questions were tested using One-way Variation Analyses. Using the F test the relation with the Core Concept were tested if it is meaningful or not. Then, by the Levene Test the homogeneity of the Data, by Scheffe Test the significant differences between the Data Categories were tested.

3.5. Analyses of the Hypothesized Model and Results

The analyses of the research model is performed at two phases, Phase I and Phase II.

3.5.1. Phase I

At Phase I of the analyses, first of all the independent variables were tested through factor analyses to reduce the number of factors, then dependent and independent variables were tested through reliability analyses. Finally, insignificant and unreliable variables were eliminated from the analyses. The findings are given in App. B, Part One.

When performing factor analysis, at the beginning 8 factors were extracted, but since the last three factors consisted of single variable they were eliminated and the factor analysis was repeated without these variables, F2, F5 and F15 (Questions 31, 21 and 37).

After the first factor analysis, 7 factors were extracted, but since the last factor consisted of single variable it was eliminated and the factor analysis was repeated without this variable, F10 (Question 5).

After the second factor analysis, 6 factors were extracted, and passed to the reliability analysis. In the reliability analysis of the independent variables, first variable, F1 (Question 28) had a negative correlation value. Thus, this variable, too, was eliminated and the factor analysis was repeated without this variable, F1 from the beginning.

When the factor analysis was repeated without the variable F1, 6 factors were extracted, however, this time the last factor consisted of single variable. Then, this variable was eliminated and the analyses were repeated without this variable, F25 (Question 20) from the beginning.

When the factor analysis was repeated for the fifth time, 5 factors were extracted, and passed to the reliability analyses. In the reliability analyses of the independent variables, fourth factor, which consisted of the variables F18 and F19 (Questions 10 and 11) , had a Cronbach's Alpha value less than 0.70 that was unreliable to use in the analyses. Thus these two variables, F18 and F19 were also eliminated and the analyses were performed from the beginning for the last time.

As a result, before continuing to further analyses, 5 analyses were performed to get a reliable and significant data set. The variables F1, F2, F5, F10, F15, F18, F19 and F25 (Questions 28, 31, 21, 5, 37, 10, 11 and 20) were eliminated and not used in further analyses.

3.5.2. Phase II

After Phase I of the analyses, the data collected were tested through a series of analyses shown in App. B Part Two.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy was found to be 0.71446, which means "middling". At least a value of 0.50 is necessary to accept the factor analysis's results. Thus, factor analyses could be applied to reduce the number of variables and to understand the relationship between the variables.

The Significance Value of Bartlett Test was found to be 0.00000, which means the data collected from the sample were from a multivariate normal population since the significance value was less than 0.05. Thus, multivariate analysis could be used in the research.

3.5.2.1. Analysis of Factor and Data Characteristics

After the rotation of Correlation Matrix, the factor questions were reduced to 4 groups when the Eigenvalues were limited to 1.00. The characteristics of these four factors and their related variables were shown in Table 14. The labels assigned for these factors are *Conditions*, *Proficiency*, *Stimulus*, and *Clarity* respectively (App.B, Part Two, Heading 8).

The Cumulative Percent of these four factors was found to be 0.614, which should be at least 0.70 for better results in factor analysis. The Percent of Variance values represents the explanatory power of that factor. Thus, *Conditions* factor was found to have the biggest explanatory power, then *Proficiency*, *Stimulus*, and *Clarity* factors respectively. By analyzing the rotated factor matrix (App.B, Part Two, Heading 8);

For *Conditions* factor, F8–*Use of Initiative* was found to be the most effective variable, then F7, F16, F17, and F9 respectively. The distribution characteristics of this factor were found to be slightly skewed to the right for all variables; slightly peaked for F7, F8 and F17; slightly flat for F9 and F16. The means were below average. In other words, **respondents found the *Conditions* provided by career development system in the organization *weak*.**

For *Proficiency* factor, F22–*Perceived level of experience* was found to be the most effective variable, then F23, F21, F20, F24 respectively. The distribution characteristics of this factor were found to be slightly skewed to the right for F21 and F22; slightly skewed to the left for F20, F23 and F24; slightly peaked for F20; slightly flat for F21, F22 and F23; moderately flat for F24. In other words, **respondents found themselves having deficiencies in *knowledge* and *experience*, on the other hand highly *self-confident* and *skillful*. Their opinions about the *specialty* were found to be close to average that means the maintenance personnel feels the current career development system provides an average level of specialization on sub branches.**

Table 14. The Characteristics of Independent Variables

Factor	Variable	Mean	Variance	Standard Deviation	Skewness	Kurtosis*	Eigenvalue	Percent of Variance	Cumulative Percent
1 *Conditions*	F7 Authority maintained	2.78	1.81	1.35	0.50	-0.16	4.26	25.0	25.0
	F8 Use of Initiative	2.93	1.90	1.38	0.28	-0.51			
	F9 Feedback from superiors	2.56	1.82	1.35	1.23	1.34			
	F16 Appropriate work atmosphere for individual development	2.93	1.52	1.23	0.52	0.49			
	F17 Equal benefit from career opportunities	2.63	1.75	1.32	0.55	-0.32			
2 *Proficiency*	F20 Perceived level of skills and abilities	4.52	0.60	0.77	-0.16	-0.32	3.28	19.3	44.3
	F21 Perceived level of knowledge	3.97	0.51	0.71	0.94	1.80			
	F22 Perceived level of experience	3.99	0.88	0.94	0.13	1.08			
	F23 Perceived level of specialty	3.57	1.27	1.13	-0.13	0.37			
	F24 Self confidence	5.03	0.94	0.97	-1.14	2.48			
3 *Stimulus*	F4 Necessity for high skill level	5.07	1.06	1.03	-0.74	-0.68	1.75	10.3	54.6
	F12 Promotion	4.71	1.78	1.33	-1.19	1.20			
	F13 Rewards	4.63	1.86	1.36	-0.87	0.08			
	F14 Punishments	5.04	1.60	1.27	-1.39	1.13			
4 *Clarity*	F3 Clearly defined career paths and plans	2.86	2.09	1.44	0.37	-0.70	1.44	6.7	61.4
	F6 Clearly defined tasks and responsibilities	3.81	2.10	1.44	-0.02	-0.92			
	F11 Career counseling system	2.60	2.08	1.44	0.54	-0.44			

* For a normal distribution, the value of Kurtosis statistic is 0. For samples from a normal distribution, the Kurtosis values will fluctuate around 0. The positive Kurtosis values in the table indicate that the distribution is flat, and the negative Kurtosis values indicate that the distribution is peak compared to the normal distribution. Thus, the factors F9, F21, F22, F24, F12 and F14 were found to have nonnormal distribution while the others have nearly normal distribution.

For *Stimulus* factor, F13–*Rewards* was found to be the most effective variable, then F4, F14, F12 respectively. The distribution characteristics of this factor were found to be slightly skewed to the left for all variables; slightly peaked for F4; slightly flat for other variables. In other words, **respondents found that the *stimulus* provided by career development system had significant effects over themselves. The maintenance personnel feels that they are highly and positively affected when they get rewards and promotion on time. On the other hand they are quite sensitive against the punishments. Then, it can be concluded that for the maintenance personnel who serve for a highly technical branch like Army Aviation, the best way to motivate and encourage them in their career development is to persuade them to understand the necessity for high skill level and to use rewards instead of punishments.**

For *Clarity* factor, F6–*Clearly Defined tasks and responsibilities* was found to be the most effective variable, then F3 and F11 respectively. The distribution characteristics of this factor were found to be slightly skewed to the right for F3 and F11; slightly skewed to the left for F6; slightly peaked for all variables. In other words, **respondents found that the career development system had deficiencies in *defining career paths* and providing *career counseling,* on the other hand, had an average level in *having defined tasks and responsibilities.* The maintenance personnel are not sure about their future positions. They don't have enough information provided by Army to use in their career development process and when they have some information it is not certain that they will be able to implement their career development plans.**

After the Factor Analysis, the characteristics of the Sub-Concept variables were found by using Descriptive Statistics and shown in Table 15.

For *Interest* Sub-Concept, the distribution characteristics were found to be slightly skewed to the right for SC11; slightly skewed to the left for the other variables; slightly peaked for all variables. In other words, **respondents had a low level of *morale,* on the other hand they had above-the-average level of *motivation, defined goals* and *effort to achieve.***

For *Choice* Sub-Concept, the distribution characteristics were found to be slightly skewed to the right for SC25; slightly skewed to the left for other variables; slightly peaked for all variables. In other words, **respondents were found that they took *responsibility*, they made *plans to implement* and tried to *participate* in the career development process. However, they had difficulties of not having *clarified career paths* to follow, and directing their future according to their *choices and preferences*.**

For *Performance* Sub-Concept, the distribution characteristics were found to be slightly skewed to the left for SC32, SC33, SC34 and SC35; moderately skewed to the left for SC36; slightly skewed to the right for SC31; slightly peaked for SC31, SC33 and SC34; slightly flat for SC32 and SC35. The distribution characteristics of SC36 were found to be quite flat which is not good for a reliable assessment on this factor. It may be because the respondents might have had difficulty in answering the related question in the questionnaire because most of the time Army rules restricts and sometimes forces the personnel to decrease the absenteeism level, thus the personnel can not behave as they may like to do. In other words, **respondents found themselves quite *successful*, however they complained that the *organization did not perceive* them as successful as themselves did. They, also, found themselves quite *satisfied* with their work and quite *loyal* to the organization and its rules. They expressed that they have worked *with low level of absenteeism*. On the other hand they complained that they were using an average level of *creativity*.**

As a result, it can be said that the measures and items used in data collection were found to be satisfactory, since they did not have extremely skewed values and had a good spread over the scales.

Table 15. Characteristics of Dependent Variables

Sub-Concept	Variable	Mean	Variance	Standard Deviation	Skewness	Kurtosis*
SC1–*Interest*	SC11 Morale	3.13	1.69	1.30	0.28	-0.68
	SC12 Motivation	4.27	2.17	1.47	-0.45	-0.80
	SC13 Defined goals	4.54	1.90	1.38	-0.63	-0.42
	SC14 Effort to achieve	4.41	0.89	0.95	-0.04	-0.47
SC2–*Choice*	SC21 Individual responsibility	4.78	0.74	0.86	-0.10	-0.78
	SC22 Prepared and followed plans	4.37	1.70	1.30	-0.17	-0.88
	SC23 Clarified career paths to follow	3.87	1.66	1.29	-0.02	-0.56
	SC24 Individual participation	4.48	1.23	1.11	-0.19	-0.87
	SC25 Individual choices and preferences	3.30	2.13	1.46	0.22	-0.65
SC3–*Performance*	SC31 Individual's perception about his success	4.36	0.56	0.75	0.30	-0.07
	SC32 Organization's perception about the success of individual	3.85	1.42	1.19	-0.69	0.49
	SC33 Job satisfaction	4.08	1.62	1.27	-0.40	-0.08
	SC34 Using creativity	3.99	2.23	1.49	-0.43	-0.46
	SC35 Loyalty to the organization and its rules	4.62	1.26	1.12	-1.20	2.01
	SC36 Low level of absenteeism	5.41	1.06	1.03	-2.14	5.02

3.5.2.2. Reliability Analyses

Cronbach's Alpha method was used in the analysis of independent and independent variables. Cronbach's Alpha value should be, at least 0.70 for reliable results.

---

* For a normal distribution, the value of Kurtosis statistic is 0. For samples from a normal distribution, the Kurtosis values will fluctuate around 0. The positive Kurtosis values in the Table 15 indicate that the distribution is flat, and the negative Kurtosis values indicate that the distribution is peak compared to the normal distribution. Thus, the variables SC35 and SC36 were found to have nonnormal distribution while the others have nearly normal distribution.

In the reliability analysis, first of all the independent variables were tested, and an alpha value of 0.7952 was found for all variables, showing the results were reliable (App.B, Part Two, Heading 9).

Second, the independent variables in each factor were tested, and alpha values of 0.7865, 0.8097, 0.7127, and 0.7427 were found for Factor1, Factor2, Factor3, and Factor4, respectively, showing the results were reliable (App.B, Part Two, Heading 9).

Third, the dependent variables in the Sub-Concepts were tested and an alpha value of 0.7958 was found for the Core-Concept, showing the results were reliable (App.B, Part Two, Heading 9).

3.5.2.3. Multiple Regression Analyses

Multiple Regression Analysis was used to test the hypothesis that, four independent variables of *Conditions, Proficiency, Stimulus, and Clarity* will significantly explain the *effectiveness of the career development system.*

The Pearson Correlation Matrix is shown in Table 16.

Table 16. Pearson Correlation Matrix

	CC *Effectiveness of career development system*	FACTOR1 *Conditions*	FACTOR2 *Proficiency*	FACTOR3 *Stimulus*	FACTOR4 *Clarity*
CC *Effectiveness of career development system*	1.00 . 75	0.337 0.002 75	0.622 0.000 75	0.443 0.000 75	0.442 0.000 75
FACTOR1 *Conditions*	0.337 0.002 75	1.00 . 75	0.062 0.300 75	0.076 0.258 75	0.595 0.000 75
FACTOR2 *Proficiency*	0.622 0.000 75	0.062 0.300 75	1.00 . 75	0.304 0.004 75	0.140 0.115 75
FACTOR3 *Stimulus*	0.443 0.000 75	0.076 0.258 75	0.304 0.004 75	1.00 . 75	0.141 0.113 75
FACTOR4 *Clarity*	0.442 0.000 75	0.595 0.000 75	0.140 0.115 75	0.141 0.113 75	1.00 . 75

The Pearson Correlation Matrix was analyzed and the Linearity values— the correlation coefficient between dependent and independent variables, which should be at least 0.70 in absolute values to indicate a linear relationship between dependent and independent variables— were found to be 0.337, 0.622, 0.443 and 0.442 for Factor1, Factor2, Factor3, and Factor4 respectively. The prob values—the values in the second line in the correlation matrix— were found to be less than 0.05, which are necessary for the significance of the results. Thus, it can be said that there is a positive correlation between Core-Concept and Factors, but relationships are not linear enough. The factor, which had the most linear relationship, was found to be Factor 2—*Proficiency*. That means for establishing an effective career development system the perceptions of the personnel about themselves had the great impact, and among them the perceptions about the level of experience was the most effective.

The Multicolinearity values— the correlation coefficient between independent variables, which should be less than 0.70 in absolute values for the significance of the results— were found to be less than 0.70 for all independent variables. Thus, it can be said that the relationships between factors do not affect the results of the analysis.

The findings in the regression analysis are given in Table 17;

The Adjusted R Square value—which should be at least 0.50 for significant results— was found to be 0.55541, indicating that the Factors were explaining the 55% of the Core-Concept.

The Significant F value—which tests the Multiple R and should be less than 0.05— was found to be 0.0000, indicating that there was a meaningful relationship between Core-Concept and the Factors.

In the regression equation, the results of T Test indicated that, Factor 1— *Conditions* was an insignificant variable since it had a Sig T value bigger than 0.05. On the other hand, other Factors were found to be significant variables to be used in the regression equation.

Table 17. The Results of Regression Analysis

Multiple R	0.76121				
R Square	0.57944				
Adjusted R Square	0.55541				
Standard Error	6.41834				
Analysis of Variance					
	DF	Sum of Squares	Mean Square		
Regression	4	3973.08753	993.27188		
Residual	70	2883.65913	41.19513		
F = 24.11139	Signif F = 0.0000				
Variables in the Equation					
Variable	B	SE B	Beta	T	Sig T
FACTOR4	0.700806	0.266605	0.256581	2.629	0.0105
FACTOR2	1.401426	0.227678	0.503628	6.155	0.0000
FACTOR3	0.635751	0.213960	0.243089	2.971	0.0041
FACTOR1	0.265981	0.190529	0.134682	1.396	0.1671
(Constant)	11.407620	5.592255		2.040	0.0451

Among the variables, Factor 2—*Proficiency* was found to be the most effective variable over the Core-Concept by comparing the Beta values, then Factor 4—*Clarity*, Factor 3—*Stimulus*, and Factor 1—*Conditions* respectively.

Thus, eliminating Factor 1 the regression equation can be restated as follows;

$$Y = 11.4 + 1.4\,F2 + 0.64\,F3 + 0.70\,F4$$

In order to make it clear that the results of tests were accurate, Durbin-Watson Test was applied and test value was found to be 2.07806. Using the Durbin-Watson table, the boundaries for *no-auto-correlation* area were found to be 1.739 and 2.261, indicating that there was *no-auto-correlation*, since the test value was within the boundaries.

3.5.2.4. Analysis of Demographic Variables

One-Way Anova analysis was applied on demographic variables to test the hypothesis that the effectiveness of the personnel would vary according to their

demographic aspects. The test results and the demographic variables were given in Table 18. As a result, it was found that there was no significant relationship between demographic variables and Core-Concept.

Table 18. The Results of One-Way Anova

Variable	F Prob Value	Meaning of Test Value	Levene Test Value	Meaning of Test Value
D1 *Current Position*	0.3317	Insignificant	0.658	Homogenous
D2 *Rank*	0.3811	Insignificant	0.537	Homogenous
D3 *Age*	0.8073	Insignificant	0.560	Homogenous
D4 *Years of Service*	0.2364	Insignificant	0.442	Homogenous
D5 *Education Level*	0.1332	Insignificant	0.287	Homogenous
D6 *Income Level*	0.9790	Insignificant	0.689	Homogenous
D7 *Marital Status*	0.9085	Insignificant	0.858	Homogenous
D8 *Number of Children*	0.8155	Insignificant	0.135	Homogenous

CHAPTER 4

4. CONCLUSIONS

The importance of Career Development has been increasing for organizations day by day, since the organizations have to increase effectiveness and productivity in order to maintain their existence in a rapidly changing competitive environment. There are several methods found to increase the effectiveness and productivity of the organizations. Among them, the most effective one was found to be the development of the personnel. Especially, for larger organizations, well-prepared and applied career development plans and programs have gained more importance for the productivity of the organization.

The reasons for conducting this study was to attract some attention to this important issue, and to start a new study to bring new perspectives to the problems encountered in career development process while maintaining effectiveness of the personnel and the organization.

One of the purpose of this study was to find out the current situation of the career development system in the Army Aviation maintenance branch and the opinions of the personnel about it. The data collected from a sample of 75 personnel were found to be generalizable to the target population–NCOs who serve as Army Aviation maintenance personnel.

The opinions and perceptions of the personnel about the current career development system can be categorized into four groups found through the factor analyses;

4.1. Perceptions About The Conditions Factor

- Personnel feel themselves not equipped with the necessary level of authority for their work. This might be because of the highly hierarchic structure of Army, and

since Army gives more importance to ranks rather than merits of the personnel, NCOs as Army Aviation technicians face with this kind of problems frequently.

- Personnel express their use of initiative to be at quite low levels. This is also closely linked with the previous statement. Army tries to make its personnel, especially NCOs and other Enlisted Personnel behave in certain patterns.
- Personnel complains about the low level of feedback provided by their superiors for their performance. This is a quite big problem for Army, since the commanders believe that they have to maintain a certain distance between the subordinates, they find it easier not to communicate at all.
- Personnel find the work atmosphere not appropriate enough for individual development. Since Army gives more importance to Unit benefits rather than individual benefits, most of the measures taken for career development are for the organization first, then comes the individual.
- Personnel believes that they do not benefit from the career opportunities equally. This might be because of several reasons. First of all, not all the maintenance personnel are able to meet the requirements declared by Army, especially foreign language is an important criterion. Then, the location and the current position of the personnel, sometimes, make the personnel critical since they are alone at that time. Also, the location may have other effects like the difficulty in transportation and the delays in delivery of information

4.2. Perceptions About The Proficiency Factor

- Personnel find themselves skillful, and self-confident. This might be because of the close relations with foreign army personnel and also the courses taken outside of Turkey. In many years of experience, a common belief among foreign countries is formed that both Turkish Officers and Non Commissioned Officers are very successful, clever and hard working. And these positive feelings might have important influence over the personnel.
- Personnel find their level of knowledge and experience insufficient. In the last decade, Army Aviation branch has developed so fast and many new equipments and aircraft have been put into service in Turkish Army Aviation branch. However, when they entered into the service the trained and educated personnel side of the equation failed. In order to meet the personnel requirement, the number of the

personnel recruited was increased during the last 5 years. Since the education and training of an Army Aviation technician requires practice and practice many times, the quality of the education and training given in the Army Aviation School decreased due to these rapid changes. Since these new equipments and aircraft are highly sophisticated and are high technology products the knowledge and experience level of the personnel are now quite below the required level.

- Personnel feel their specialty to be at average level. Turkish Army does not have a satisfactory specialization policy of its maintenance personnel on specific tasks and technical sub branches. And this causes many problems when maintaining maintenance personnel for necessary positions.

4.3. Perceptions About The Stimulus Factor

- Personnel find that work necessitates a very high level of skills. That is, the maintenance personnel are quite conscious about the requirements of the tasks they perform.
- Personnel find that effects of promotions and rewards over their performance are above average. Army Aviation personnel are quite educated and sophisticated with respect to other Army branches. Thus, some special incentives different from the current ones in the reward system are necessary to increase their performance. These special incentives should be organized in a manner that the personnel should benefit from them according to their performance level. These incentives may be extra payments, sabbaticals, specially organized tours in and outside of Turkey, some high level courses given in and outside of Turkey. A well prepared reward and promotion system is so important in order to distinguish the successful ones among the other personnel.
- Personnel's performances are deeply and negatively affected by punishments. The type punishments used in Army are confinement and fines given to the personnel by their superiors or *Military Discipline Courts*. Using punishment will not increase the performance of the maintenance personnel, thus punishment system should not be used when trying to increase the performance of the personnel and to motivate them.

4.4. Perceptions About The Clarity Factor

- Personnel find that the organization does not provide clearly defined career paths and plans. Currently Army does not have specially prepared plans for individuals. Actually, most of the time tradition helps the decision makers to decide on one's career. In Turkish Army, the work atmosphere is deeply influenced and shaped by the traditions which may sometimes come before the laws and these traditions may vary from one unit to another. For example, a superior may plan and implement a career development program in a way that all his/her personnel will benefit from it in an order by seniority rather than by merit since the tradition in that unit requires such a decision. In the current system, the individual can not have an active role in planning and implementing them.
- Personnel feels that organization provides an average level of definition of tasks and responsibilities. Actually, this is expected to be at high levels. The problem here is the rapid development of the Army Aviation branch. Every day new tasks and duties occur and it seems it will take some more time to settle.
- Personnel find that current career counseling system is quite poor. The importance of the individual seems not to be understood enough in Army. Since the existence of 15-year compulsory service, Army does not show much interest for individual concerns. The individual is left alone with his/her career problems most of the time.

4.5. Other Findings of the Research

This study showed that personnel find themselves responsible for their career development, they have plans, and they try to participate in the career development process. However, they don't have clear career paths to follow and they have difficulty in directing their future according to their choices and preferences.

In this study, any significant relationship between demographic factors and core concept could not be found.

However, this study showed that there were relationships between core concept and the independent variables. Correlation coefficients among the independent variables and core concept are shown in Figure 11.

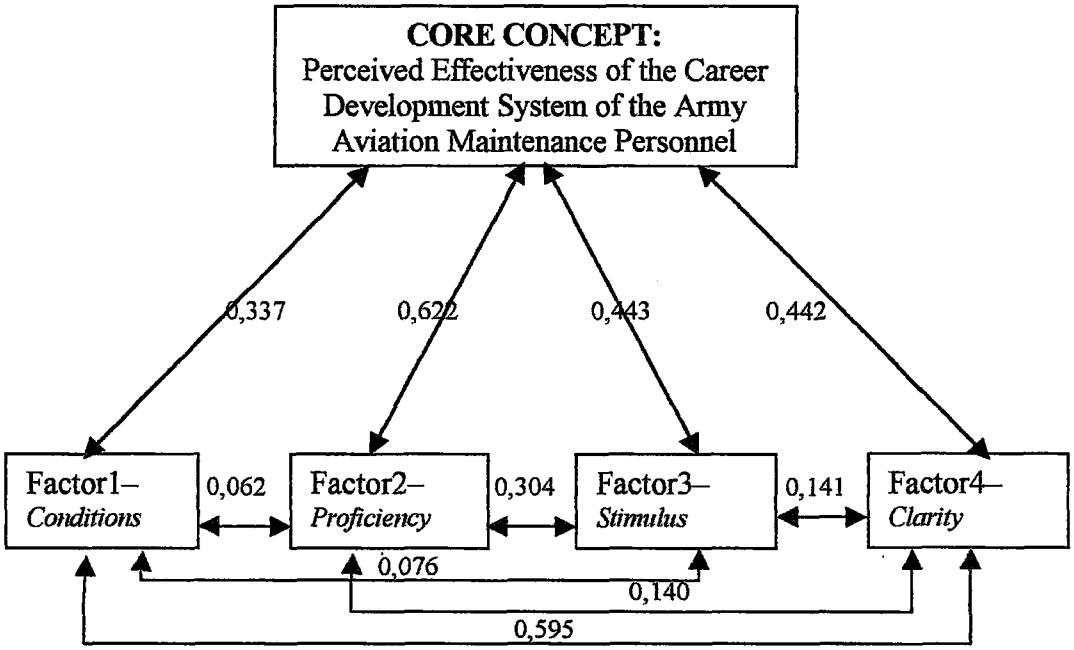

Figure 11. The Correlation Coefficients Between Variables

The correlation between CC– *Effectiveness of career development system* and Factor2–*Proficiency* was found to have the highest value, then Factor3, Factor4 and Factor1, respectively. The highest correlation among the factors was found to be 0,595 between Factor1–*Conditions* and Factor4–*Clarity* which should be less than 0,7 for reliable results indicating that all results were reliable. The reason of this high correlation may be because the variables forming the two factors are closely related with each other. For example a career counseling system can not be thought without a feedback mechanism, and a task or responsibility can not be thought without the necessary authority maintained.

After the multiple regression analyses conducted for the research model, it was found that the model was valid and the factors stated in the model covers 55 percent of all factors affecting the effectiveness of the career development system.

The equation found through the multiple regression analyses was as follows;

$$Y = 11.4 + 1.4\ F2 + 0.64\ F3 + 0.70\ F4$$

where 11.4 was constant value, F2 was factor labeled *Proficiency*, F3 was factor labeled *Stimulus*, and F4 was factor labeled *Clarity*.

As indicated in the equation, the most effective factor over the career development system was F2–*Proficiency,* which includes the perceptions of the personnel about their level of skills and abilities, knowledge, experience, specialty and self confidence. Also, the research has indicated that personnel found themselves having deficiencies in knowledge and experience, on the other hand highly self- confident and skillful. The perceptions about the level of specialty was close to average. Thus, it can be concluded that, the current career development system is not effectively functioning since the deficiencies were found in the knowledge and experience factors which are very effective over the effectiveness of the career development system.

If the results are interpreted it can be easily seen that, the main problem in the effectiveness of the personnel is because of the deficiencies in the career development system, not of the personnel themselves.

The results of the study indicated that the research model could explain 55 percent of the core concept, in other words 45 percent of it can be explained by other variables like;

- Information provided on career development opportunities and on different career paths by the organization
- Organization's image in the society which may great impact over the personnel's perceptions and decisions
- Career discussions and communications between employees and supervisors
- The variables excluded in the research because of the insignificant results obtained.

For further studies on career development systems these variables and possible other variables should be taken into consideration for better results. And, the variables used in this research should be re-tested by changing the way of asking questions.

As a result, it can be said that the current career development system of Army Aviation Maintenance Personnel is not effectively functioning. There is a great necessity for revising the current career development system to eliminate the deficiencies stated above in order to increase the effectiveness of the personnel and the organization.

4.6. Recommendations

Some recommendations can be listed as follows;

- The current personnel orientation programs should be revised in a way that when first entering the Army, the candidates should be informed about the facilities provided for them, difficulties they may face and expectations of Army about them.

- It is necessary that the new graduates should begin their first service at AVUM level and their specialization at specific sub-branches like *Avionics, Hydraulics*, etc. should begin after three years of trial period. At the end of this trial period the technician will be able to clarify his own interests and make career plans using the tools provided by career development system. And he will continue his career progress while increasing his experience, knowledge and skills step by step.

- Personnel's career development should be provided by well prepared and clearly defined career paths and plans, through which the personnel will increase their experience and knowledge step by step in the direction of their interests and choices.

- Current maintenance system used by Army Aviation branch has been categorized into three levels— Unit Level (AVUM), Intermediate Level (AVIM), and DEPOT Level. The responsibilities and authorities of each maintenance level have been defined and tools and equipments are delivered to these units according to their maintenance responsibilities. By establishing a well prepared job rotation program every personnel should increase their experience and knowledge.

- Unit commanders should take every measures to increase communication and feedback among themselves and their personnel.

- The Career Counseling system should immediately be established and begin to provide necessary help and guidance for the personnel.

- The reward system should be reviewed and given enough importance to motivate the maintenance personnel. Also current promotion system should be revised so that only the required amount and the merited personnel could promote.

- The authority demanded by the personnel should be given by job enrichment.

- Finally, Army should change its *personnel policy* in order to give more importance to individual concerns. The personnel policy should aim at matching the mutual needs of the organization and the individual not only meeting the needs of the organization. It should also aim at the happiness of the personnel while meeting the requirements of the organization. Family Support Centers should be established in order to take care of the family problems of the personnel which is especially important in case of a campaign or a war.

REFERENCES

1. Aldag, R.J., and A.P. Brief — *Task Design and Employee Motivation*, Scot-Foresman & Co., Glenview, III., 1979.
2. Alfred, Theodore M. — *Choice or Checkers in Manpower Management*, Harvard Business Review, January-February 1967, pp.157-168.
3. Aytaç, Serpil — *Çalışma Yaşamında Kariyer Yönetimi Planlaması, Geliştirilmesi, Sorunları*, Eplison Yayıncılık, Istanbul, 1997.
4. Bailyn, L. — *Involvement and Accommodation in Technical Careers: An Inquiry into the Relation to Work at Mid Career*, Wiley, New York, 1977.
5. Bailyn, L. and Edgar H. Schein — *Where Are They Now, How Are They Doing?*, Technology Review 74, 1972.
6. Balocki, James B. — *Active Engagement: Charting a Path*, Engineer, Dec95, Vol.24, Issue 4, p.31.
7. Bandura, A. — *Social Foundations of Thought and Action: A Social Cognitive Theory*, Prentice-Hall, Englewood Cliffs, NJ.,1986.
8. Bandura, A. — *Personal Communication*, March1, 1993.
9. Barak, A. — *Vocational Interests: A Cognitive View*, Journal of Vocational Behavior 19, 1981, pp.1-14.
10. Baysal, Ayşe Can — *Çalışma Yaşamında İnsan*, İşletme Fakültesi Yayın No.225, İstanbul, 1993
11. Berger, Lance A. — *A New Line for Training and Development: The Needs Analysis Survey*, Personnel Administrator, November 1976, pp. 51-55.
12. Betz, N.E. — *Implications of The Null Environment Hypothesis for Women's Career Development and for Counseling Psychology*, The Counseling Psychologist 17, 1989.
13. Bowen, Donald and Douglas T. Hall — *Career Planning for Employee Development: A Prime for Managers*, California Management Review, vol.20, no.2, Winter 1977, pp.23-35.
14. Bowen, Donald and E. Lawler — *The Empowerment of Service Workers*, Sloan Management Review 33(3), 1992, p.31.
15. Brown, S.D. and R.W. Lent — *A Social Cognitive Framework for Career Choice Counseling*, The Career Development Quarterly 44, 1996, pp.354-367.

16. Burack, Elmer — *Organization Analysis,* Hinsdale, IL: Dryden, 1975.

17. Burack, Elmer and Nicholas J. Mathys — *Career Management in Organizations: A Practical Human Resource Planning Approach,* Brace-Park Press, Lake Forest, IL, 1980.

18. Burack, Elmer and Nicholas J. Mathys — *Human Resource Planning: A Pragmatic Approach,* Brake-Park Press, Lake Forest, IL, 1987.

19. Burch, E. Earl — *Productivity: Its Meaning and Measurement, Atlanta Economic Review,* May-June 1974, pp.43-47.

20. Campbell, John P. and Robert D. Pritchard — *Motivation Theory in Industrial and Organizational Psychology,* Rand McNally, Chicago, 1976.

21. Can, Halil — *Organizasyon ve Yönetim,* Siyasal Kitabevi, Ankara, 1994.

22. Craig, Robert L. — *Training and Development Handbook,* McGraw-Hill, New York, 1976.

23. Crites, J.O. — *Vocational Psychology: The Study of Vocational Behavior and Development,* McGraw-Hill, New York, 1969.

24. Cummings, Larry L., and Donald P. Schwab — *Performance in Organizations: Determinants and Appraisal,* Scott-Foresman, Glenview, 1973.

25. Dale, E. — *Planning and Developing the Company Organization Structure,* American Management Association, New York, 1952.

26. Davies, Celia and Arthur French — *There is More to Performance than Profits and Growth,* Organizational Dynamics, 1975.

27. Davis, Louis E. and James C. Taylor — *Design of Jobs: Selected Readings,* Penguin Books, Baltimore, 1972.

28. Dereli, Toker — *"2000'li Yıllarda İşyeri Çalışma Düzeni ve İnsan Kaynakları Planlaması" Çalışma hayatında 21yy. Yeni Ufukları, Yeni Yönetim Teknikleri,* MESS, 1995, s.11

29. DeVoe, Deborah — *Plans are Key to Success,* InfoWorld, Aug98, Vol.20, Issue 31, p.75.

30. Dicle, Ülkü — *İşletmelerde Kariyer Yönetimi,* Ekonomik Forum Dergisi, TOBB yayınları, Ankara, Haz.-Tem.1999.

31. Dyer, Lee — *Careers in Organizations: Individual planning and Organizational Development*, New York School of Industrial Relations, 1976.

32. Eccles, T. — *The Deceptive allure of empowerment*, Long Range Planning 26(6), 1993, pp.13-21.

33. Elbing, Alvan O., Herman Gadon and R.M.Gordon — *Flexible Working Hours: It's About Time*, Harvard Business Review, July-August 1974.

34. Friedman, Isaac A. — *Teacher-Perceived Work Autonomy: The Concept and Its Measurement*, Educational & Psychological Measurement, Feb99, Vol.59, Issue 1, p.58.

35. Glaser, B.G. — *Organizational Careers: A Sourcebook for Theory*, Aldine, Chicago, 1968.

36. Goldstein, Irwin I. — *Training: Program Development and Evaluation*, Brooks-Cole, Monterey, Calif., 1974.

37. Greene, Charles N. — *The Satisfaction-Performance Controversy*, Business Horizons, vol.15, 1972.

38. Gutteridge, T.G. and Otte, F.L. — *Organizational Career Development: State of Practice*, Washington, D.C., 1983.

39. Hackman, J.Richard — *Is job Enrichment Just a Fad?*, Harvard Business Review, vol.53, September-October 1975.

40. Hackman, J.Richard — *Work Design*, Goodyear Publications, Santa Monica, Calif., 1977.

41. Hackman, J.Richard — *The Design of Work in 1980s*, Organizational Dynamics, Summer 1978, pp.3-17.

42. Hall ,Douglas T. — *Career Development in Organizations*, Jossey-Bass, San Francisco, 1987.

43. Hall, Douglas T. — *Careers in Organizations*, Goodyear Publications, Pacific Palisades, Calif., 1976.

44. Hamner, W.Clay — *Worker Motivation Programs: The Importance of Climate, Structure and Performance Consequences*, St.Clair, Chicago, 1977.

45. Hansen, J.C. — *The Measurement of Vocational Interests: Issues and Future Directions*, Handbook of Counseling Psychology, New York, 1984, pp.99-136.

46. Harley, David and Aaron Walter — *Commissioned Officer Development and Career Management*, Engineer, Jul98, Vol.28, Issue 3, p.22.

47. Hirsch, Wendy; Jo Wood — *Employee Steering*, People Management, March98, Vol.4 Issue 6, p.56.

48. Holland, J.L. — *Making Vocational Choices: A Theory of Vocational Personalities and Work Environments,* Prentice-Hall, Englewood Cliffs, N.J., 1985.

49. Isaacs, Nora — *Career Planning Guide,* InfoWorld, March99, Vol.21, Issue 10, p.89

50. Jennings, Eugene E. — *Routes to the Executive Suite,* McGraw-Hill, New York, 1971.

51. Kaynak, Tuğral; Zeki Andal; İsmail Ataay; Cavide Uyargil; Ömer Sadullah; Ahmet Cevat Acar; Oya Özçevik; Gönen Dündar and Reha Uluhan — *İnsan Kaynakları Yönetimi,* İ.Ü.İşletme Fakültesi, Yayın No:276, 1998

52. Kendrick, John W., and Daniel Creamer — *Measuring Company Productivity,* The Conference Board, New York, 1975.

53. Lanier, A. — *Selecting and Preparing Personnel for Overseas Transfers,* Personnel Journal, March 1979.

54. Lawler, E.E — *High-Involvement Management,* Jossey-Bass, 1991.

55. Lawler, E.E. — *From the Groundup,* Jossey-Bass, 1996.

56. Lenox, R.A. and L.M. Subich — *The Relationship between Self Efficacy Beliefs and Inventoried Vocational Interests,* The Career Development Quarterly 42, 1994.

57. Lent, R.W., K.C.Larkin and S.D. Brown — *Relation of Self Efficacy to Inventoried Vocational Interests,* Journal of Vocational Behavior 34, 1989, pp.279-288.

58. Lent, R.W., S.D. Brown and G. Hackett — *Toward a Unifying Social Cognitive Theory of Career and Academic Interest, Choice, and Performance,* Journal of Vocational Behavior 45, 1994, pp.45-122.

59. Lent, Robert W.; Steven D. Brown — *Social Cognitive Approach to Career Development,* Career Development Quarterly, Jun96, Vol.44, Issue 4, p.310.

60. Locke, Edwin A. — *The Nature and Causes of Job Satisfaction,* Rand Mcnally, Chicago, 1976.

61. Maanen, J.Van, L.Bailyn, and E.H. Schein — *The Shape of Things to Come: A New Look at Organizational Careers,* McGraw-Hill, New York, 1977.

62. Mager, Robert F. — *Performance Analysis: You Really Oughta Wanna,* Fearon Publishers, Belmont, Calif., 1970.

63. Mager, Robert F., and Peter Pipe — *Analyzing Performance Problems,* Fearon Publishers, Belmont, Calif., 1970.

64. McBeath, Gordon — *Productivity through People,* John Wiley & Sons, New York, 1974.

65. McGehee, William — *Training and Development Theory, Policies and Practices,* Bureau of National Affairs, Washington, 1977.

66. Nadler, David A., and E.E. Lawler — *Motivation: A Diagnostic Approach,* McGraw-Hill, New York, 1971.

67. Nişel, Rauf — *Research Methodology and Data Analyses,* Notes, Istanbul, 1999.

68. Nollen, Stanley D., and Virginia H.Martin — *Alternative Work Strategies,* Amacom, New York, 1978.

69. Odiorne, George S. — *Training by Objectives,* MacMillan & Co., New York, 1970.

70. Onay, İrfan — *Kalkınma, Kalite Yönetimi ve İnsan Kaynakları,* PER-YÖN, 1993, s.13

71. Pearson, A.E. — *Sales Power through Planned Careers,* Harvard Business Review, vol.44, no.1, January-February 1966, pp.105-116.

72. Rand, Mcnally — *Differentiation in Military HRM,* Rand's National Defense Research Institute, 1998, http: // www.rand.org/organization/nsrd/ndri.98AR.pdf)

73. Reichers, A.E. and B. Scheider — *Climate and Culture: An Evolution of Constructs,* Jossey-Bass, San Francisco, 1990, pp.5-39.

74. Reif, William E. — *The Application of Behavior Modification Technology to the Design of Jobs and Organizational Reward Systems,* a paper presented at the XXIII TIMS Meeting, Athens, Greece, 1977.

75. Reif, William E., and Robert M. Monczka — *Job Redesign: A Contingency Approach to Implementation,* Personnel, May-June 1974, pp.18-31.

76. Rimler, George W., and Guy J. DeGenaro — *Needs Assessment–The Vital Ingredient for Success in Bank Training,* Bank Administration, March 1978, pp.36-43.

77. Rummler, Geary A. — *Human Performance Problems and Their Solutions,* Human Resource Management, Winter 1972, pp.2-10.

78. Rush, Harold F.M. — *Job Design for Motivation,* The Conference Board, New York, 1971.

79. Savickas, Mark L. — *Measuring Career Development: Current Status and Future Directions,* Career Development Quarterly, Sep94, Vol.43 Issue 1, p.54.

80. Scanlon, B.K. — *Determinants of Job Satisfaction and Productivity,* Personnel Journal, vol.55, no.1, 1976, pp.12-14.

81. Schein, Edgar H — *The Art of Managing Human Resources,* Oxford University Press, New York,1987.

82. Schein, Edgar H. — *How Career Anchors Hold Executives to Their Career Paths,* Personnel, vol.52, May-June 1975, pp.11-24.

83. Schein, Edgar H. — *Career Dynamics: Matching Individual and Organizational Needs,* Addison-Wesley, Reading, Mass., 1978.

84. Schwab, Donald P., and Larry L. Cummings — *Theories of Performance and Satisfaction: A Review,* Industrial Relations, vol.9, October 1970, pp.408-430.

85. Scott, W. — *Organization Concepts and Analysis,* Dickenson Publishing Co., Belmont, Calif., 1969.

86. Sekaran, U. — *Research Methods for Business,* John Wiley & Sons, New York, 1994.

87. Shadur, M.A. — *Total Quality-Systems Survive, Cultures Change,* Long Range Planning 28, pp.115-125, 1995.

88. Shadur, M.A. — *The Relationship Between Organizational Climate and Employee Perceptions of Involvement,* Group & Organization Management, Dec.99, Vol.24, Issue 4, p.479.

89. Sheehy, G. — *Catch 30 and Other Predictable Crises of Growing Up Adult,* New York Magazine, Feb.1974, pp.30-44.

90. Sherman, H. — *It All Depends,* University of Alabama Press, University, 1967.

91. Steers, Richard and Lyman Porter — *Motivation and Work Behavior,* McGraw-Hill, New York, 1978.

92. Stephens, Gregory K.; Bernadette Szajna and Kirk M.Broome — *The Career Success Expectation Scale: An Exploratory and Confirmatory Factor Analysis,* Educational and Psychological Measurement, Feb.98, Vol.58, p.129.

93. Stoltz-Loike, Marian — *Adult Career Transitions,* Career Development Quarterly, Sep95, Vol.44 Issue 1, p.89.

94. Storey, Walter D. *Career Dimensions,* Crotonville-on Hudson, New York, 1976.

95. Strauss, G. *Organization Development,* Rand McNally, Chicago, 1976.

96. Studd, Dave *Book Reviews: Counseling for Career Development,* Guidance & Counseling, May93, Vol.8, Issue 5, p.63

97. Super, D.E. *The Psychology of Careers,* Harper and Row, New York, 1957.

98. Sutermeister, Robert A. *People and Productivity,* McGraw-Hill, New York, 1976.

99. Van Maanen, J. and Edgar H. Schein *Improving the Quality of Work Life:* Career Development, Goodyear, Los Angeles, 1977.

100. Van Maanen, J. and Edgar H. Schein *Improving the Quality of Work Life: Career Development,* U.S. Department of Labor, Monograph Series on Strategies for Improving the Quality of Worklife, Washington, 1975.

101. Vroom, Victor H. *Work and Motivation,* John Wiley & Sons, New York, 1964.

102. Walker, James W. *Personal and Career Development,* ASPA Handbook of Personnel and Industrial Relations, vol.5, Bureau of National Affairs, Washington, 1977, pp.57-64.

103. Walker, James W. *Human Resource Planning,* McGraw-Hill Publishing Company, New York, 1980.

104. Walker, James W., and Thomas G. Gutteridge *Career Planning Practices,* AMACOM, New York, 1979.

105. Walsh, W. Bruce and Colby Srsic *Annual Review: Vocational Behavior and Career Development,* Career Development Quarterly, Dec.95, Vol.44, Issue 2, p.98.

106. Woodman, Richard W. and John J. Sherwood *A Comprehensive Look at Job Design,* Personnel Journal, August 1977, pp. 384-418.

107. Wooten, Leland and Jim L.Tarter *The Productivity Audit: A Key Tool for Executives,* MSU Business Topics, Spring 1976, pp.31-41.

APPENDIX A The Questionnaire Used In Data Collection

ANKET

Anket Numarası: ..... (boş bırakınız.)

Sizlere uygulanacak olan bu anket, mesleki gelişim programlarının personel tarafından nasıl algılandığı ve değerlendirildiği konusunda yapılan bir çalışmanın parçası olarak hazırlanmıştır.

Ankette size yöneltilen çoktan seçmeli sorulara size göre en uygun olan seçeneği (X) şeklinde işaretleyerek belirtiniz. Diğer sorulara ise altlarındaki boşluğu kullanarak cevap veriniz.

Ankette sizleri yanıltmak veya zor duruma düşürmek amacıyla hazırlanmış herhangi bir soru yoktur. Unutmayınız ki sorular için önceden belirlenmiş doğru veya yanlış bir cevap yoktur. Size göre en uygun olan cevabı veriniz.

Kişisel cevaplarınız tamamıyla saklı tutulacaktır. Cevaplarınızı içtenlikle verdiğiniz için şimdiden teşekkür ederim.

Erdeniz UMAN

1. İşime gelirken kendimi huzurlu, neşeli hissederim.

( ) Hiçbir zaman böyle hissetmem	( ) Nadiren böyle hissederim	( ) Bazen böyle hissederim	( ) Oldukça sık böyle hissederim	( ) Çoğu zaman böyle hissederim	( ) Her zaman böyle hissederim

2. Amirlerim işi nasıl yaptığım konusunda düşüncelerini bildirirler.

( ) Hiçbir zaman bildirmezler	( ) Nadiren bildirirler	( ) Bazen bildirirler	( ) Oldukça sık bildirirler	( ) Çoğu zaman bildirirler	( ) Her zaman bildirirler

3. Kendinizi mesleğinizde bilgi açısından ne kadar yeterli buluyorsunuz?

( ) Hiç yeterli değilim	( ) Çok az yeterli buluyorum	( ) Az yeterli buluyorum	( ) Oldukça yeterli buluyorum	( ) Çok yeterli buluyorum	( ) Tamamen yeterli buluyorum

4. Mesleki yaşantımda kendimi yetiştirme ve geliştirme açısından uygun bir çalışma ortamı vardır.

( ) Tamamen karşıyım	( ) Çok az katılıyorum	( ) Az katılıyorum	( ) Oldukça katılıyorum	( ) Çok fazla katılıyorum	( ) Tamamen katılıyorum

5. Mesleğimde adil bir değerlendirme ve ödüllendirme sistemi vardır.

( ) Tamamen karşıyım	( ) Çok az katılıyorum	( ) Az katılıyorum	( ) Oldukça katılıyorum	( ) Çok fazla katılıyorum	( ) Tamamen katılıyorum

6. Meslek hayatımda yaptığım işlerden kişisel tatmin duyuyorum.

( ) Hiç duymam	( ) Çok az duyarım	( ) Az duyarım	( ) Oldukça fazla duyarım	( ) Çok fazla duyarım	( ) Yüksek derecede duyarım

7. Kendinizi mesleğinizde uzmanlaşma açısından ne kadar yeterli buluyorsunuz?

( ) Hiç yeterli değilim | ( ) Çok az yeterli buluyorum | ( ) Az yeterli buluyorum | ( ) Oldukça yeterli buluyorum | ( ) Çok yeterli buluyorum | ( ) Tamamen yeterli buluyorum

8. Kendimi mesleki açıdan geliştirmek, hedeflerime ulaşmak için çaba gösteriyorum.

( ) Hiç çaba göstermiyorum | ( ) Çok az çaba gösteriyorum | ( ) Az çaba gösteriyorum | ( ) Oldukça çaba gösteriyorum | ( ) Çok fazla çaba gösteriyorum | ( ) Yüksek derecede çaba gösteriyorum

9. Yapmış olduğum görev için gerekli yetkiler şahsıma sağlanmış durumdadır.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

10. Mesleğe başlamanızdan bugüne kadar görmüş olduğunuz yurt içi kurs sayısı nedir?

.....

11. Mesleğe başlamanızdan bugüne kadar görmüş olduğunuz yurt dışı kurs sayısı nedir?

.....

12. Mesleki gelişim sürecimde kişisel sorumluluk duyarım.

( ) Hiç duymam | ( ) Çok az duyarım | ( ) Az duyarım | ( ) Oldukça fazla duyarım | ( ) Çok fazla duyarım | ( ) Yüksek derecede duyarım

13. Yapmış olduğum görev için açıkça belirlenmiş iş ve sorumluluk tanımları vardır.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

14. Meslek hayatımda zaman konusunda oldukça hassas davranırım, konulmuş kurallara aynen uyarım.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

15. Mesleki gelişimim açısından mevcut imkanlardan herkes ile aynı oranda faydalanabiliyorum.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

16. Mesleki gelişim sürecimde hedeflerime ulaşmak için hazırlamış olduğum planlarım var.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

17. Görevimi yerine getirirken bana kişisel inisiyatif ve yargımı kullanma konusunda şans tanınır.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

18. Kendinizi mesleğinizde tecrübe açısından ne kadar yeterli buluyorsunuz?

( ) Hiç yeterli değilim | ( ) Çok az yeterli buluyorum | ( ) Az yeterli buluyorum | ( ) Oldukça yeterli buluyorum | ( ) Çok yeterli buluyorum | ( ) Tamamen yeterli buluyorum

19. Mesleki gelişim sürecimde takip etmem gereken yolları biliyorum ve ona göre hareket ediyorum.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

20. Görevimi yerine getirirken kendimi yaptığım işte önemli ve değerli görürüm.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

21. Yapmış olduğum görevde işin doğru yapılıp yapılmamasından bir çok kişi ciddi bir şekilde etkilenebilir.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

22. Mesleki gelişim sürecimde kişisel seçimlerim rol oynamaktadır.

( ) Hiç rol oynamamaktadır | ( ) Çok az rol oynamaktadır | ( ) Az rol oynamaktadır | ( ) Oldukça rol oynamaktadır | ( ) Çok fazla rol oynamaktadır | ( ) Tamamen rol oynamaktadır

23. Almış olduğum cezalar performansımı olumsuz yönde etkiliyor.

( ) Hiç etkilemiyor | ( ) Çok az etkiliyor | ( ) Az etkiliyor | ( ) Oldukça etkiliyor | ( ) Çok fazla etkiliyor | ( ) Yüksek derecede etkiliyor

24. Mesleğimde uzun vadede ulaşmak istediğim önemli hedeflerim, amaçlarım var.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

25. Mesleki gelişim sürecime kişisel katılımım ve katkım var.

( ) Hiç yok | ( ) Çok az var | ( ) Az var | ( ) Oldukça fazla var | ( ) Çok fazla var | ( ) Yüksek derecede var

26. Yapmış olduğum görev birtakım karmaşık ve yüksek düzeyde becerileri kullanmamı gerekli kılar.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

27. Kendi başarı durumunuz mevcut değerlendirme sistemine (sicil, terfi vs.) göre nasıldır?

( ) Başarısız | ( ) Çok az başarılı | ( ) Az başarılı | ( ) Oldukça başarılı | ( ) Çok başarılı | ( ) Üstün başarılı

28. Meslek yaşantımda rekabetçi bir iş ortamı vardır.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

29. Görevimi yerine getirirken kendime güvenim tamdır.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

30. Kendinizi mesleğinizde genel olarak ne derecede başarılı buluyorsunuz?

( ) Başarısız | ( ) Çok az başarılı | ( ) Az başarılı | ( ) Oldukça başarılı | ( ) Çok başarılı | ( ) Üstün başarılı

31. Meslek yaşantımda oldukça hareketli, değişim ve gelişim gösteren bir iş ortamı vardır.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

32. Mesleğimi severek ve isteyerek yapıyorum.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

33. Mesleki açıdan almış olduğum terfiler performansımı olumlu yönde etkiliyor.

( ) Hiç etkilemiyor | ( ) Çok az etkiliyor | ( ) Az etkiliyor | ( ) Oldukça etkiliyor | ( ) Çok fazla etkiliyor | ( ) Yüksek derecede etkiliyor

34. İşe gelmemek için mazeretler yaratmam, zorunlu olmadıkça günlük izin talebinde bulunmam.

( ) Tamamen karşıyım | ( ) Çok az katılıyorum | ( ) Az katılıyorum | ( ) Oldukça katılıyorum | ( ) Çok fazla katılıyorum | ( ) Tamamen katılıyorum

35. Kendinizi mesleğinizde yetenek ve kabiliyet açısından ne kadar yeterli buluyorsunuz?

( ) Hiç yeterli değilim	( ) Çok az yeterli buluyorum	( ) Az yeterli buluyorum	( ) Oldukça yeterli buluyorum	( ) Çok yeterli buluyorum	( ) Tamamen yeterli buluyorum

36. Çalıştığım birimde mesleki gelişimim için hazırlanmış açık ve belirli yollar ve planlar vardır.

( ) Tamamen karşıyım	( ) Çok az katılıyorum	( ) Az katılıyorum	( ) Oldukça katılıyorum	( ) Çok fazla katılıyorum	( ) Tamamen katılıyorum

37. Mesleki yaşantımda gördüğüm tayin ve atamalar performansımı olumsuz yönde etkiliyor.

( ) Hiç etkilemiyor	( ) Çok az etkiliyor	( ) Az etkiliyor	( ) Oldukça etkiliyor	( ) Çok fazla etkiliyor	( ) Yüksek derecede etkiliyor

38. Meslek hayatımda yaratıcılığımı ve diğer yeteneklerimi kullanıyorum.

( ) Hiç kullanmıyorum	( ) Çok az kullanıyorum	( ) Az kullanıyorum	( ) Oldukça fazla kullanıyorum	( ) Çok fazla kullanıyorum	( ) Yüksek derecede kullanıyorum

39. Mesleğimde gerektiğinde danışabileceğim bir mesleki danışmanlık sistemi vardır.

( ) Tamamen karşıyım	( ) Çok az katılıyorum	( ) Az katılıyorum	( ) Oldukça katılıyorum	( ) Çok fazla katılıyorum	( ) Tamamen katılıyorum

40. Almış olduğum ödüller performansımı olumlu yönde etkiliyor.

( ) Hiç etkilemiyor	( ) Çok az etkiliyor	( ) Az etkiliyor	( ) Oldukça etkiliyor	( ) Çok fazla etkiliyor	( ) Yüksek derecede etkiliyor

Aşağıdaki soruları yanlarında verilen boşlukları kullanarak cevaplayınız.

Göreviniz :..... (Kimliğinizi açıklamayacak şekilde genel bir cevap veriniz. 1nci Kısım Komutanı yerine Kısım Komutanı gibi.)

Rütbeniz :.....

Yaşınız :.....

Meslekteki yılınız :.....

Eğitim seviyeniz :.....

Aylık net geliriniz :.....

Medeni durumunuz :.....

Çocuk sayınız :.....

APPENDIX B SPSS Package Program Outputs

PART ONE–Initial Analysis

1. F A C T O R A N A L Y S I S (Included all variables)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = ,63245

Bartlett Test of Sphericity = 779,71463, Significance = ,00000

PC extracted 8 factors.

Rotated Factor Matrix:

	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Factor7	Factor8
F8	,85381	-,08841	-,06014	,22045	,09062	,09434	,05678	,01033
F7	,83581	,05444	,09071	-,05678	-,07604	,15873	-,00483	-,00785
F16	,64145	,24817	,15241	-,08475	,06327	-,35740	-,03130	,10318
F17	,63674	-,06293	-,00634	,16293	,22389	-,21361	-,02493	,35174
F10	,57746	,00318	-,17249	-,26597	,03554	,00485	-,43868	,04365
F11	,55127	-,03237	,05045	-,18843	,46864	,03635	,39398	,23522
F9	,46510	-,02987	,07036	-,10085	,31892	-,39104	,34134	-,10478
F23	,02503	,87744	,10337	-,04504	-,00087	,05301	,05032	-,07932
F22	-,23553	,72601	,08817	,22019	-,09686	-,01670	,19984	,04918
F24	,21303	,70002	,11135	-,00238	,07781	,00215	-,02692	,34986
F25	,14618	,61695	,19194	,00432	,18137	,37929	-,21611	,01775
F21	,04514	,58931	,00640	,48304	-,18104	-,14841	,21720	-,08232
F20	-,16659	,51520	,17698	,35506	-,09511	-,19609	,29131	,39001
F13	-,00875	,14213	,81627	,09245	,15625	,17109	,00369	,11582
F12	,24299	,31561	,70762	,07042	,04099	-,10798	-,15597	-,00614
F4	-,09672	,06218	,64791	,13431	,00019	,39469	,16674	,32023
F14	-,04399	-,01096	,62569	-,23129	-,29452	-,01534	,24671	-,22576
F18	-,03264	,01112	,27724	,76866	-,00307	,04763	-,12552	-,11792
F19	,06176	,16739	-,17431	,72867	-,07830	,14219	-,09706	,03381
F1	-,08089	-,18076	-,02957	-,04927	,72750	-,05347	,04308	-,14040
F3	,40808	,21457	,07921	,00409	,67286	-,13516	-,13332	,01790
F6	,33687	,30525	,01800	-,22269	,47925	,24943	,18011	,26365
F5	-,00288	,04115	,19815	,10484	-,07748	,78892	,19420	-,00001
F15	03844	,21926	,02893	-,22485	,03869	,23493	,72644	-,07876
F2	,17200	,09410	,06019	-,11886	-,07978	,04493	-,09102	,82429

2. F A C T O R A N A L Y S I S (Excluded F2, F5, F15)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = ,67520

Bartlett Test of Sphericity = 682,00440, Significance = ,00000

PC extracted 7 factors.

Rotated Factor Matrix:

	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Factor7
F8	,84998	-,11224	-,05852	,10396	,19777	-,03527	,00737
F7	,73971	-,06967	,10666	,17037	-,03488	-,21754	,21709
F17	,69967	-,05366	-,05594	,16216	,16406	,13001	,10566
F16	,66595	,28924	,07235	-,06045	-,16795	,09718	,33962
F11	,63715	-,09854	,07083	,39601	-,23063	,33575	-,19067
F9	,58688	,10667	,02218	-,16952	-,25905	,41399	-,01033
F22	-,20206	,80343	,09104	,10595	,07198	-,02003	-,01850
F21	,15363	,75905	-,01355	-,03648	,24718	-,13506	-,24048
F23	-,03335	,75409	,09048	,33582	-,12273	-,06941	,19002
F20	-,04734	,71791	,16932	,01256	,20842	,04841	-,05636
F24	,21026	,54871	,09030	,52538	,00008	-,08509	,12795
F13	-,00679	,10922	,82687	,19379	,11667	,12397	,05751
F4	-,02900	,07693	,69942	,30461	,10131	-,07700	-,32654
F12	,16929	,24779	,66720	,06132	,12766	,03148	,47416
F14	-,01947	,05556	,64668	-,22221	-,30722	-,19915	-,13672
F6	,32418	,06461	,05068	,71792	-,18465	,22586	-,03803
F25	,03417	,30187	,19613	,67080	,09631	-,11456	,14464
F18	,00275	,11105	,27089	-,10719	,77719	-,00983	-,09089
F19	,02861	,21363	-,15329	,01938	,76266	-,09861	,03427
F1	,00152	-,14566	-,04979	-,01437	-,07391	,78964	-,06215
F3	,35878	,05822	,03457	,31732	,08454	,57403	,44169
F10	,38886	-,21975	-,20082	,11920	-,09151	-,07546	,64637

3. F A C T O R A N A L Y S I S (Excluded F2, F5, F15, F10)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = ,68883

Bartlett Test of Sphericity = 633,43439, Significance = ,00000

PC extracted 6 factors.

Rotated Factor Matrix:

	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
F8	,82554	-,12956	-,05566	,10343	,20294	-,03256
F7	,76086	-,06911	,10546	,16873	-,04135	-,21560
F16	,73358	,29102	,05067	-,03277	-,17706	,10072
F17	,70492	-,06845	-,05936	,18489	,16353	,10656
F11	,58650	-,14330	,07060	,40579	-,22540	,29991
F9	,56097	,09081	,01650	-,16104	-,24520	,45306
F22	-,20242	,80802	,11169	,09574	,07018	-,00225
F23	,01621	,76244	,09903	,34289	-,13569	-,07960
F21	,10405	,74087	,00575	-,05892	,25221	-,11616
F20	-,05225	,71146	,18310	,00893	,20534	,05240
F24	,22566	,55197	,11385	,52047	-,00616	-,08790
F13	,01926	,10238	,82999	,17897	,09969	,10973
F4	-,12021	,06171	,74253	,23720	,10694	-,03818
F14	-,04851	,05150	,64870	-,27553	-,30997	-,14790
F12	,29926	,26032	,64089	,08898	,09362	-,01168
F6	,28650	,04975	,07971	,71580	-,17864	,21415
F25	,06383	,30807	,21856	,66415	,08423	-,13771
F18	-,00201	,10491	,27895	-,11757	,77288	-,01777
F19	,02037	,22955	-,12607	,01250	,76899	-,07617
F1	-,03560	-,14927	-,03964	,00161	-,05104	,82813
F3	,45946	,06210	,01515	,38387	,07223	,52470

4. R E L I A B I L I T Y A N A L Y S I S - S C A L E (ALPHA)
(Excluded F2, F5, F15, F10)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
F1	72,4800	125,0908	-,0025	,7901
F11	73,0533	111,6458	,4500	,7550
F12	70,9467	111,7268	,4946	,7524
F13	71,0267	113,6209	,4117	,7581
F14	70,6133	124,8350	,0355	,7825
F16	72,7200	112,7989	,5007	,7529
F17	73,0267	114,4858	,3959	,7594
F18	72,3733	120,5885	,1019	,7850
F19	74,2933	125,6695	,0882	,7746
F20	71,1333	122,1982	,2702	,7680
F21	71,6800	122,1395	,3028	,7671
F22	71,6667	121,8739	,2268	,7696
F23	72,0800	116,6151	,3918	,7604
F24	70,6267	115,2912	,5369	,7541
F25	71,4533	111,8998	,4302	,7565
F3	72,7867	110,4133	,4918	,7518
F4	70,5867	119,7593	,2935	,7663
F6	71,8400	111,1632	,4641	,7539
F7	72,8667	113,5766	,4192	,7577
F8	72,7200	112,9341	,4303	,7568
F9	73,0933	116,7885	,3034	,7658

Reliability Coefficients

N of Cases = 75,0 N of Items = 21

Alpha = ,7728

5. F A C T O R A N A L Y S I S (Excluded F2, F5, F15, F10, F1)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = ,69620

Bartlett Test of Sphericity = 611,01611, Significance = ,00000

PC extracted 6 factors.

Rotated Factor Matrix:

	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
F8	,84007	-,16234	-,07814	,07225	,24202	,19602
F7	,76010	-,08593	,08338	,02282	,01818	,24779
F16	,73120	,28445	,05356	,15180	-,14865	-,06828
F17	,58677	-,06425	-,00673	,48815	,15549	-,01556
F9	,57066	,07812	,02702	,24821	-,28369	-,25954
F11	,52860	-,14373	,09859	,48189	-,27131	,23755
F22	-,18286	,80791	,11852	-,02791	,07539	,10443
F23	,04614	,75986	,09005	,00361	-,11514	,38510
F20	-,11823	,72540	,23406	,20072	,19612	-,13994
F21	,17297	,71531	-,02167	-,21604	,30068	,10275
F24	,20792	,54538	,11904	,18138	,00454	,51310
F13	-,00571	,10195	,85281	,12962	,05904	,09790
F4	-,09930	,04778	,73265	-,06341	,08479	,29043
F12	,23233	,27026	,67958	,19838	,09100	-,04167
F14	,07540	,03027	,58340	-,49744	-,27707	-,04440
F3	,34313	,07279	,09213	,73245	-,01600	,05461
F6	,19923	,05737	,12127	,56308	-,23918	,51225
F18	,01915	,07162	,27504	-,11784	,77299	-,01358
F19	-,02551	,20931	-,10254	,08322	,77276	,01879
F25	,07943	,28882	,20111	,07626	,08442	,74578

6. F A C T O R A N A L Y S I S (Excluded F2, F5, F15, F10, F1, F25)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = ,70416

Bartlett Test of Sphericity = 559,99011, Significance = ,00000

PC extracted 5 factors.

Rotated Factor Matrix:

	Factor1	Factor2	Factor3	Factor4	Factor5
F8	,81747	-,11997	-,04591	,15029	,24938
F16	,75713	,25496	,02207	,06505	-,12226
F7	,73190	-,02219	,12448	,15157	,01990
F9	,60088	,00721	-,03026	,11107	-,24043
F17	,59195	-,07021	-,02689	,43911	,20447
F23	,04757	,82946	,11476	,09327	-,12654
F22	-,18671	,81805	,11373	-,03538	,07602
F21	,15103	,72414	-,00973	-,20581	,29166
F20	-,11362	,68351	,19150	,08474	,22843
F24	,21711	,63395	,15056	,28701	-,00157
F13	,00311	,11682	,84538	,13216	,06133
F4	-,13045	,12068	,77418	,08660	,06647
F12	,26524	,25149	,64649	,09696	,10636
F14	,07555	,02017	,58987	-,46953	-,31570
F6	,18294	,17390	,16018	,75621	-,21070
F3	,38146	,07459	,05445	,64803	,04118
F11	,51821	-,08740	,11044	,58708	-,23256
F19	-,03386	,20565	-,09919	,02020	,77741
F18	,01084	,06863	,28542	-,17208	,75832

7. R E L I A B I L I T Y A N A L Y S I S - S C A L E (ALPHA) (Excluded F2, F5, F15, F10, F1, F25)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
F19	3,2800	2,9881	,4131	.
F18	1,3600	,4497	,4131	.

N of Cases = 75,0 N of Items = 2

Alpha = ,4358

PART TWO–Subsequent Analysis

8. F A C T O R A N A L Y S I S (Excluded F1, F2, F5, F10, F15, F18, F19, F25)

Analysis number 1 Replacement of missing values with the mean

	Mean	Std Dev	Cases	Label
F11	2,60000	1,44260	75	
F12	4,70667	1,33329	75	
F13	4,62667	1,36336	75	
F14	5,04000	1,26747	75	
F16	2,93333	1,23391	75	
F17	2,62667	1,32311	75	
F20	4,52000	,77738	75	
F22	3,98667	,93712	75	
F23	3,57333	1,12914	75	
F24	5,02667	,97223	75	
F3	2,86667	1,44571	75	
F4	5,06667	1,03105	75	
F6	3,81333	1,44908	75	
F7	2,78667	1,34861	75	
F8	2,93333	1,37873	75	
F9	2,56000	1,34807	75	
F21	3,97333	,71610	75	

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = ,71446

Bartlett Test of Sphericity = 505,90960, Significance = ,00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
		*				
F11	1,00000	*	1	4,25599	25,0	25,0
F12	1,00000	*	2	3,27750	19,3	44,3
F13	1,00000	*	3	1,75470	10,3	54,6
F14	1,00000	*	4	1,14436	6,7	61,4
F16	1,00000	*	5	,94930	5,6	67,0
F17	1,00000	*	6	,94195	5,5	72,5
F20	1,00000	*	7	,84486	5,0	77,5
F22	1,00000	*	8	,67928	4,0	81,5
F23	1,00000	*	9	,62679	3,7	85,1
F24	1,00000	*	10	,49796	2,9	88,1
F3	1,00000	*	11	,42686	2,5	90,6
F4	1,00000	*	12	,35857	2,1	92,7
F6	1,00000	*	13	,32233	1,9	94,6
F7	1,00000	*	14	,31309	1,8	96,4
F8	1,00000	*	15	,23800	1,4	97,8
F9	1,00000	*	16	,19970	1,2	99,0
F21	1,00000	*	17	,16878	1,0	100,0

PC extracted 4 factors.

VARIMAX rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

VARIMAX converged in 6 iterations.

Rotated Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4
F8	,84541	-,06675	-,06560	,07816
F7	,75521	-,00120	,12562	,10871
F16	,73631	,22819	,03958	,09861
F17	,62409	-,02235	-,07310	,37033
F9	,55801	-,05607	-,00121	,19111
F22	-,19601	,81602	,10922	-,01772
F23	,02121	,79653	,10468	,15279
F21	,16494	,75974	,00401	-,25724
F20	-,09293	,73035	,15846	,04656
F24	,19969	,62963	,11001	,32897
F13	,01456	,14855	,82932	,16180
F4	-,13662	,14627	,74741	,14591
F14	,00405	-,06344	,67812	-,30051
F12	,27431	,29290	,61845	,11329
F6	,16858	,12708	,11307	,81624
F3	,38938	,08137	-,00742	,64533
F11	,51236	-,11725	,07655	,62166

Factor Transformation Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 1	,71411	,39800	,26735	,51006
Factor 2	-,45693	,76384	,42022	-,17657
Factor 3	-,06814	-,50477	,85969	,03866
Factor 4	,52595	,05782	,11346	-,84093

9. R E L I A B I L I T Y A N A L Y S I S - S C A L E (ALPHA)
(Excluded F1, F2, F5, F10, F15, F18, F19, F25)

ANALYSIS OF ALL INDEPENDENT VARIABLES

		Mean	Std Dev	Cases
1.	F11	2,6000	1,4426	75,0
2.	F12	4,7067	1,3333	75,0
3.	F13	4,6267	1,3634	75,0
4.	F14	5,0400	1,2675	75,0
5.	F16	2,9333	1,2339	75,0
6.	F17	2,6267	1,3231	75,0
7.	F20	4,5200	,7774	75,0
8.	F21	3,9733	,7161	75,0
9.	F22	3,9867	,9371	75,0
10.	F23	3,5733	1,1291	75,0
11.	F24	5,0267	,9722	75,0
12.	F3	2,8667	1,4457	75,0
13.	F4	5,0667	1,0310	75,0
14.	F6	3,8133	1,4491	75,0
15.	F7	2,7867	1,3486	75,0
16.	F8	2,9333	1,3787	75,0
17.	F9	2,5600	1,3481	75,0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	63,6400	101,7741	10,0883	17

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
F11	61,0400	86,0659	,5091	,7752
F12	58,9333	87,6306	,4954	,7767
F13	59,0133	90,0404	,3817	,7854
F14	58,6000	98,9730	,0474	,8081
F16	60,7067	87,6155	,5470	,7735
F17	61,0133	89,3377	,4272	,7819
F20	59,1200	97,1611	,2616	,7922
F21	59,6667	97,6306	,2566	,7925
F22	59,6533	97,3377	,1924	,7957
F23	60,0667	92,3333	,3763	,7856
F24	58,6133	91,4566	,5040	,7791
F3	60,7733	86,8804	,4751	,7780
F4	58,5733	95,5182	,2577	,7926
F6	59,8267	86,2804	,4975	,7761
F7	60,8533	87,7755	,4820	,7776
F8	60,7067	88,9939	,4182	,7826
F9	61,0800	91,1827	,3408	,7884

Reliability Coefficients

N of Cases = 75,0 N of Items = 17

Alpha = ,7952

ANALYSIS OF FACTOR1

		Mean	Std Dev	Cases
1.	F8	2,9333	1,3787	75,0
2.	F7	2,7867	1,3486	75,0
3.	F16	2,9333	1,2339	75,0
4.	F17	2,6267	1,3231	75,0
5.	F9	2,5600	1,3481	75,0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	13,8400	23,7578	4,8742	5

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
F8	10,9067	14,5452	,6953	,7000
F7	11,0533	15,8890	,5627	,7467
F16	10,9067	16,3020	,5955	,7373
F17	11,2133	16,1160	,5546	,7493
F9	11,2800	17,2314	,4208	,7922

Reliability Coefficients

N of Cases = 75,0 N of Items = 5

Alpha = ,7865

ANALYSIS OF FACTOR2

		Mean	Std Dev	Cases
1.	F22	3,9867	,9371	75,0
2.	F23	3,5733	1,1291	75,0
3.	F21	3,9733	,7161	75,0
4.	F20	4,5200	,7774	75,0
5.	F24	5,0267	,9722	75,0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	21,0800	11,9665	3,4593	5

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
F22	17,0933	7,5723	,6817	,7457
F23	17,5067	6,7668	,6681	,7539
F21	17,1067	8,9344	,5885	,7808
F20	16,5600	8,7092	,5782	,7805
F24	16,0533	8,1323	,5210	,7972

Reliability Coefficients

N of Cases = 75,0 N of Items = 5

Alpha = ,8097

ANALYSIS OF FACTOR3

		Mean	Std Dev	Cases
1.	F13	4,6267	1,3634	75,0
2.	F4	5,0667	1,0310	75,0
3.	F14	5,0400	1,2675	75,0
4.	F12	4,7067	1,3333	75,0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	19,4400	13,5470	3,6806	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
F13	14,8133	6,8295	,6818	,5232
F4	14,3733	9,2371	,5181	,6486
F14	14,4000	9,2162	,3540	,7351
F12	14,7333	8,1171	,4807	,6632

Reliability Coefficients

N of Cases = 75,0 N of Items = 4

Alpha = ,7127

ANALYSIS OF FACTOR4

		Mean	Std Dev	Cases
1.	F6	3,8133	1,4491	75,0
2.	F3	2,8667	1,4457	75,0
3.	F11	2,6000	1,4426	75,0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	9,2800	12,4205	3,5243	3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
F6	5,4667	6,1441	,5814	,6422
F3	6,4133	6,4890	,5215	,7114
F11	6,6800	6,0584	,6028	,6168

Reliability Coefficients

N of Cases = 75,0 N of Items = 3

Alpha = ,7427

ANALYSIS OF CORE-CONCEPT

		Mean	Std Dev	Cases
1.	SC1	16,3600	3,0696	75,0
2.	SC2	20,8133	4,2986	75,0
3.	SC3	26,3200	3,9495	75,0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	63,4933	92,6587	9,6259	3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
SC1	47,1333	53,1982	,6708	,7189
SC2	42,6800	41,1395	,5992	,7836
SC3	37,1733	41,8209	,6898	,6657

Reliability Coefficients

N of Cases = 75,0 N of Items = 3

Alpha = ,7958

10.M U L T I P L E R E G R E S S I O N A N A L Y S I S

Mean Substituted for Missing Data

	Mean	Std Dev	Cases	Label
CC	63,493	9,626	75	
FACTOR1	13,840	4,874	75	
FACTOR2	21,080	3,459	75	
FACTOR3	19,440	3,681	75	
FACTOR4	9,280	3,524	75	

N of Cases encountered = 75

Minimum Pairwise N of Cases = 75

Correlation, 1-tailed Sig, N of Cases:

	CC	FACTOR1	FACTOR2	FACTOR3	FACTOR4
CC	1,000	,337	,622	,443	,442
	,	,002	,000	,000	,000
	75	75	75	75	75
FACTOR1	,337	1,000	,062	,076	,595
	,002	,	,300	,258	,000
	75	75	75	75	75
FACTOR2	,622	,062	1,000	,304	,140
	,000	,300	,	,004	,115
	75	75	75	75	75
FACTOR3	,443	,076	,304	1,000	,141
	,000	,258	,004	,	,113
	75	75	75	75	75
FACTOR4	,442	,595	,140	,141	1,000
	,000	,000	,115	,113	,
	75	75	75	75	75

Multiple R	,76121
R Square	,57944
Adjusted R Square	,55541
Standard Error	6,41834

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	4	3973,08753	993,27188
Residual	70	2883,65913	41,19513

F = 24,11139 Signif F = ,0000

---------- Variables in the Equation ----------

Variable	B	SE B	Beta	T	Sig T
FACTOR4	,700806	,266605	,256581	2,629	,0105
FACTOR2	1,401426	,227678	,503628	6,155	,0000
FACTOR3	,635751	,213960	,243089	2,971	,0041
FACTOR1	,265981	,190529	,134682	1,396	,1671
(Constant)	11,407620	5,592255		2,040	,0451

Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	40,5060	81,0368	63,4933	7,3274	75
*RESID	-16,0828	17,3438	,0000	6,2425	75
*ZPRED	-3,1372	2,3942	,0000	1,0000	75
*ZRESID	-2,5058	2,7022	,0000	,9726	75

Total Cases = 75

Durbin-Watson Test = 2,07806

11.O N E - W A Y A N O V A

Variable CC By Variable D1

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	319,9875	106,6625	1,1585	,3317
Within Groups	71	6536,7592	92,0670		
Total	74	6856,7467			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	49	62,2041	9,8043	1,4006	59,3880 TO 65,0202
Grp 2	20	66,4000	8,4691	1,8938	62,4363 TO 70,3637
Grp 3	4	62,0000	10,2956	5,1478	45,6176 TO 78,3824
Grp 4	2	69,0000	15,5563	11,0000	-70,7682 TO 208,7682
Total	75	63,4933	9,6259	1,1115	61,2786 TO 65,7081

GROUP	MINIMUM	MAXIMUM
Grp 1	40,0000	88,0000
Grp 2	44,0000	85,0000
Grp 3	54,0000	77,0000
Grp 4	58,0000	80,0000
TOTAL	40,0000	88,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,5381	3	71	,658

Multiple Range Tests: Scheffe test with significance level ,05

The difference between two means is significant if

- No two groups are significantly different at the ,050 level

Variable CC By Variable D2

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	5	496,1449	99,2290	1,0764	,3811
Within Groups	69	6360,6018	92,1826		
Total	74	6856,7467			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	14	65,5714	10,9173	2,9178	59,2680 TO 71,8749
Grp 2	17	62,5882	11,2698	2,7333	56,7939 TO 68,3826
Grp 3	14	63,5000	8,9249	2,3853	58,3469 TO 68,6531
Grp 4	9	60,7778	6,4377	2,1459	55,8293 TO 65,7263
Grp 5	18	62,3333	8,8783	2,0926	57,9183 TO 66,7484
Grp 6	3	74,0000	6,0000	3,4641	59,0950 TO 88,9050
Total	75	63,4933	9,6259	1,1115	61,2786 TO 65,7081

GROUP	MINIMUM	MAXIMUM
Grp 1	40,0000	83,0000
Grp 2	44,0000	88,0000
Grp 3	48,0000	80,0000
Grp 4	49,0000	70,0000
Grp 5	48,0000	85,0000
Grp 6	68,0000	80,0000
TOTAL	40,0000	88,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,8244	5	69	,537

Multiple Range Tests: Scheffe test with significance level ,05

- No two groups are significantly different at the ,050 level

Variable CC By Variable D3

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	5	219,4931	43,8986	,4564	,8073
Within Groups	69	6637,2535	96,1921		
Total	74	6856,7467			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	12	63,1667	11,2963	3,2610	55,9894 TO 70,3440
Grp 2	23	63,2174	10,9169	2,2763	58,4966 TO 67,9382
Grp 3	14	64,2143	8,4415	2,2561	59,3403 TO 69,0882
Grp 4	10	60,6000	6,4498	2,0396	55,9861 TO 65,2139
Grp 5	12	64,0833	9,2388	2,6670	58,2133 TO 69,9534
Grp 6	4	69,0000	11,1355	5,5678	51,2811 TO 86,7189
Total	75	63,4933	9,6259	1,1115	61,2786 TO 65,7081

GROUP	MINIMUM	MAXIMUM
Grp 1	40,0000	83,0000
Grp 2	44,0000	88,0000
Grp 3	49,0000	80,0000
Grp 4	48,0000	70,0000
Grp 5	53,0000	85,0000
Grp 6	54,0000	80,0000
TOTAL	40,0000	88,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,7902	5	69	,560

Multiple Range Tests: Scheffe test with significance level ,05

- No two groups are significantly different at the ,050 level

Variable CC By Variable D4

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	5	630,2189	126,0438	1,3968	,2364
Within Groups	69	6226,5278	90,2395		
Total	74	6856,7467			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	20	66,9500	11,8964	2,6601	61,3823 TO 72,5177
Grp 2	17	61,0000	8,5294	2,0687	56,6146 TO 65,3854
Grp 3	9	61,7778	7,6938	2,5646	55,8638 TO 67,6917
Grp 4	10	59,1000	7,3098	2,3116	53,8709 TO 64,3291
Grp 5	9	64,4444	9,5670	3,1890	57,0906 TO 71,7983
Grp 6	10	65,9000	8,7363	2,7626	59,6505 TO 72,1495
Total	75	63,4933	9,6259	1,1115	61,2786 TO 65,7081

GROUP	MINIMUM	MAXIMUM
Grp 1	40,0000	88,0000
Grp 2	44,0000	80,0000
Grp 3	48,0000	74,0000
Grp 4	48,0000	70,0000
Grp 5	53,0000	85,0000
Grp 6	54,0000	80,0000
TOTAL	40,0000	88,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,9710	5	69	,442

Multiple Range Tests: Scheffe test with significance level ,05

- No two groups are significantly different at the ,050 level

Variable CC By Variable D5

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	648,3585	162,0896	1,8276	,1332
Within Groups	70	6208,3882	88,6913		
Total	74	6856,7467			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	53	63,1887	8,9680	1,2319	60,7168 TO 65,6606
Grp 2	2	77,5000	4,9497	3,5000	33,0283 TO 121,9717
Grp 3	8	67,1250	8,9193	3,1534	59,6683 TO 74,5817
Grp 4	10	60,4000	12,6509	4,0006	51,3501 TO 69,4499
Grp 5	2	58,5000	2,1213	1,5000	39,4407 TO 77,5593
Total	75	63,4933	9,6259	1,1115	61,2786 TO 65,7081

GROUP	MINIMUM	MAXIMUM
Grp 1	40,0000	88,0000
Grp 2	74,0000	81,0000
Grp 3	48,0000	77,0000
Grp 4	44,0000	85,0000
Grp 5	57,0000	60,0000
TOTAL	40,0000	88,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
1,2767	4	70	,287

Multiple Range Tests: Scheffe test with significance level ,05

- No two groups are significantly different at the ,050 level

Variable CC By Variable D6

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	5	74,3117	14,8623	,1512	,9790
Within Groups	69	6782,4350	98,2962		
Total	74	6856,7467			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	25	63,7600	10,5486	2,1097	59,4057 TO 68,1143
Grp 2	11	64,2727	10,6779	3,2195	57,0992 TO 71,4463
Grp 3	22	62,9091	8,3147	1,7727	59,2226 TO 66,5956
Grp 4	8	62,3750	12,3974	4,3832	52,0105 TO 72,7395
Grp 5	6	62,6667	8,3106	3,3928	53,9453 TO 71,3880
Grp 6	3	67,3333	7,0238	4,0552	49,8851 TO 84,7815
Total	75	63,4933	9,6259	1,1115	61,2786 TO 65,7081

GROUP	MINIMUM	MAXIMUM
Grp 1	40,0000	88,0000
Grp 2	44,0000	81,0000
Grp 3	48,0000	80,0000
Grp 4	48,0000	85,0000
Grp 5	53,0000	75,0000
Grp 6	60,0000	74,0000
TOTAL	40,0000	88,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,6151	5	69	,689

Multiple Range Tests: Scheffe test with significance level ,05

- No two groups are significantly different at the ,050 level

Variable CC By Variable D7

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	1,2488	1,2488	,0133	,9085
Within Groups	73	6855,4978	93,9109		
Total	74	6856,7467			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	32	63,3438	10,2315	1,8087	59,6549 TO 67,0326
Grp 2	43	63,6047	9,2714	1,4139	60,7513 TO 66,4580
Total	75	63,4933	9,6259	1,1115	61,2786 TO 65,7081

GROUP	MINIMUM	MAXIMUM
Grp 1	40,0000	88,0000
Grp 2	48,0000	85,0000
TOTAL	40,0000	88,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,0320	1	73	,858

No range tests performed with fewer than three non-empty groups.

Variable CC By Variable D8

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	89,6462	29,8821	,3135	,8155
Within Groups	71	6767,1005	95,3113		
Total	74	6856,7467			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	40	63,8250	10,7938	1,7067	60,3730 TO 67,2770
Grp 2	15	61,4000	6,1039	1,5760	58,0198 TO 64,7802
Grp 3	17	64,2353	10,0594	2,4398	59,0632 TO 69,4074
Grp 4	3	63,6047	6,4291	3,7118	49,3624 TO 81,3043
Total	75	63,3333	9,6259	1,1115	61,2786 TO 65,7081

GROUP	MINIMUM	MAXIMUM
Grp 1	40,0000	88,0000
Grp 2	49,0000	72,0000
Grp 3	48,0000	85,0000
Grp 4	58,0000	70,0000
TOTAL	40,0000	88,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
1,9171	3	71	,135

Multiple Range Tests: Scheffe test with significance level ,05

- No two groups are significantly different at the ,050 level