Gender differences in the relative influence of job rewards on job satisfaction and organizational commitment for agricultural technicians in Kenya

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Gender differences in the relative influence of job rewards on job satisfaction and organizational commitment for agricultural technicians in Kenya

by

Margaret Mary Munyae

A dissertation submitted to the graduate faculty in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY

Department: Sociology
Major: Sociology
Major Professors: Motoko Y. Lee and Charles W. Mulford

Iowa State University
Ames, Iowa
1996

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ABSTRACT

This study sought to apply exchange-based models of job satisfaction and organizational commitment developed for industrialized economies to a developing country by testing for differential effects of job rewards on satisfaction and commitment for male and female agricultural technicians in Kenya. Four categories of rewards, namely, intrinsic, organizational extrinsic, convenience extrinsic, and social extrinsic rewards, were analyzed. The analysis commenced with an assessment of gender differences in workplace experiences and in the levels of satisfaction and commitment. This was necessary because the basis for the differential effects of rewards is the existence of equal or higher levels of satisfaction and commitment for women, relative to men, in the presence of dissimilar workplace experiences (with women having inferior experiences).

Using t-tests, gender mean differences in job rewards and in satisfaction and commitment were examined. Women were found to have inferior workplace experiences and to be significantly lower in satisfaction than men. No differences were found for commitment. It was speculated that women’s lower level in satisfaction was due to women comparing themselves to men, the absence of legal legislation to protect women, and women’s inflated expectations due to the gains they have made in education. The lack of differences in commitment was viewed in terms of the limited chances for cross-sectoral mobility and the increasing numbers of women who are breadwinners.

Regression analysis was used to assess the differential effects of rewards and to construct separate models for males and females utilizing only rewards that were significant in the subsequent step. The results demonstrated that the exchange-based models of satisfaction and commitment can be applied successfully to a developing economy. Variables from the four categories of rewards had significant effects for both men and women. Overall, the rewards operated similarly to influence satisfaction for men and women. Their effects on
commitment, however, appeared to vary by gender. The separate models explained about 60.5% and 53.4% of the variance in satisfaction for males and females, respectively. For commitment, the explained variances were 59.7% for males and 65.7% for females.
CHAPTER I
INTRODUCTION

The concepts of job satisfaction and organizational commitment have been the subject of an extremely large number of studies that have appeared in the industrial psychology, organizational psychology, sociology of work/occupation, and organizational sociology literature over the past several decades. A closer look at this literature revealed the following:

First, most studies on job satisfaction and organizational commitment have been confined to the industrialized economies of the West. Thus, the satisfaction and commitment of employees in the less developed nations, often referred to as the Third World, remain under researched. Only two studies on commitment in general (see Alvi and Ahmed, 1987 and Putti, Aryee and Liang, 1989) and a more recent study focusing on job satisfaction and organizational attachment (see Mulinge, 1994) in developing countries were identified from the literature. None of these studies adopted a gender comparison approach. Second, virtually none of previous studies have simultaneously focused on gender differences in the determinants of job satisfaction and organizational commitment. Those few studies that have focused on the subject have mainly emphasized job satisfaction (see e.g. Agassi, 1982; Bokemeier and Lacy, 1986; Glenn, Taylor, and Weaver, 1977; Hodson, 1989; Lacy, Bokemeier and Shepard, 1983; Murray and Atkinson, 1981; Penley and Hawkins, 1980; Quinn, Staines and McCullough, 1974) while totally ignoring employee commitment in the work organization.

In addition, it was noted that previous gender comparison studies have not covered the subject comprehensively in terms of the various factors that have been shown to affect job satisfaction and organizational commitment. Rather, these have mostly emphasized demographic characteristics such as age, education and marital status at the expense of other important determinants of satisfaction and commitment (such as the structural conditions of
the workplace, human characteristics and environmental factors). Finally it was observed that virtually all previous gender comparison studies have simultaneously focused on workers in diverse work settings/occupations and labor market conditions that are characterized by considerable sex segregation.

The four observations enumerated above demonstrate the need for more studies that replicate knowledge developed in the industrialized West and especially, cross-culturally. There is not only a need for more studies about satisfaction and commitment in general in work settings in the developing countries, but also a need to extend such studies to include gender comparisons. This study is an effort in this direction. It is designed to address some of the shortcomings of the existing literature that are highlighted above. Its main purpose is to test for gender differences in the relative importance of workplace conditions and outcomes, herein to be referred to as intrinsic and extrinsic rewards (Mottaz, 1985), as determinants of job satisfaction and organizational commitment among technically trained agricultural workers in a developing economy, Kenya. The study will compare the relative influence of these rewards in explaining men's and women's job satisfaction and organizational commitment.

Specifically, the study aims to address the following four questions: First, do male and female workers in a developing economy have comparable workplace experiences. In other words, do men and women encounter similar workplace conditions and job outcomes? Second, do male and female agricultural technicians in Kenya differ significantly in their levels of job satisfaction and organizational commitment? That is, does what has come to be referred to as the paradox of the contented female worker (see e.g., Phelan, 1994) characterize female employees in Kenya? This question is important in light of the persistent finding by studies that have analyzed men and women in diverse occupations, labor markets, and/or work settings in developed economies that women are not any less satisfied with their jobs relative to men (see e.g. Agassi, 1982; Hodson, 1989; Lacy et al., 1983; Phelan, 1994; Veroff, Douvan, and Kulka, 1981) even though they tend to encounter poorer job conditions.
Whether the same could be true about men and women in a single occupation (agriculture) in a developing economy is the subject of this study. The third question to be addressed by this study is whether similar rewards determine job satisfaction and organizational commitment for both male and female employees and whether these determinants operate similarly to influence satisfaction and commitment for both sexes. Finally, the study will examine whether male and female employees value similar attributes in their jobs. This question derives from the "differential job values hypothesis" that has been advanced by certain scholars (see e.g., Mason, 1995; Phelan, 1994; Kanter, 1977) as one of several explanations of the paradox of the contented female worker. According to this view, relative to men, women may not be significantly lower in job satisfaction, even in situations where they experience poor workplace conditions than men, because they do not value the same attributes in their jobs as men do.

To achieve the above objective, this study employs the following strategy. I review the theoretical and empirical literature on job satisfaction and organizational commitment to establish those important factors that determine job satisfaction and organizational commitment, and also to clarify the theoretical origins of these factors. Those identified determinants of job satisfaction and organizational commitment will constitute the set of independent variables and it is the directions and magnitudes of their effects on the dependent variables that will be compared across the sexes. Also, I will test the argument from the values contingency perspectives that specific work attributes will significantly impact on satisfaction and commitment only when the employee values them. Secondary data collected in Kenya in 1991/1992 by Mulinge will be analyzed to test for the differential effects of the independent variables on the job satisfaction and organizational commitment of men and women. It should be noted in advance that this study takes a different orientation to the subject of job satisfaction and commitment from that taken by Mulinge (1994). While Mulinge's analysis focused on the structural conditions of work and their effects on employee
satisfaction and attachment (commitment and intent to stay), this study adopts a rewards approach that is grounded on exchange theory with an emphasis on gender differences.

**Justification for the Study**

The primary importance of this study is its contribution to the development of scientific knowledge in the study of Organizational and Industrial Psychology and/or Sociology, Labor Markets, and Sociology of Work and Occupations. This will occur in two ways. First, the study will increase the stock of available knowledge about gender differences in job satisfaction and organizational commitment in general and about the determinants of the same in particular. By focusing on a developing economy, the study will increase the body of cross-cultural knowledge. As pointed out earlier, cross-validational research that replicates or applies knowledge and tests hypotheses in diverse economic settings is rare. Overall, very little is known about the determinants of job satisfaction and organizational commitment in less developed nations. A review, for example, isolated no single satisfaction and/or commitment study focusing on gender comparisons in developing countries. The few (five) studies that were found either focused on job satisfaction (see Khaleque and Wudad, 1984; Khaleque and Rahman, 1987) or tried to explain organizational commitment (see Alvi and Ahmed, 1987; Putti, Aryee, and Liang, 1989) in general in Asian countries. A more recent study (see Mulinge, 1994) applied the Lincoln-Kalleberg (1985; 1990) corporatist argument to Kenya (Africa). There is need, therefore, for more cross-validational studies in which knowledge developed in industrial nations is applied to developing countries. Through this study, I hope to make some contribution toward filling this vacuum.

In addition, the study will present a more exhaustive analysis of the factors that have been shown to affect employee job satisfaction and organizational commitment. Previous studies focusing on gender differences in satisfaction and commitment (see e.g., Hodson, 1989; Mason, 1995; Mottaz, 1981; 1985; Phelan, 1994) have relied on models that I consider
to be underspecified. That is, these studies have not examined the gender gap in satisfaction and/or commitment with "all things equal." This is suggested by the low explained variance realized by these studies. Such low explained variances suggest that either there are a lot of other variables that have not been included or there are a few very important ones that have been omitted from the specification in previous research that are related to both gender and satisfaction and/or commitment.

Although initiated primarily for explanation rather than policy purposes, this study will also generate ideas (or information) that could become quite useful in personnel management and for the formulation and the effective implementation of future agricultural policies in Kenya, in particular, and in the developing countries in general. With regard to personnel management, both job satisfaction and organizational commitment have been linked to important employee behaviors such as performance and productivity (see e.g., Jauch, Glueck, and Osborn, 1978; Larson and Fukami, 1984; Petty, McGee and Cavender, 1984; Wiener and Vardi, 1980; Steers, 1977), absenteeism and turnover (see e.g., Angle and Perry, 1981; Arnold and Feldman, 1982; Bluedorn, 1982; Brooke, 1986; Cotton and Tuttle, 1986; Dalessio, Silverman and Schuck, 1986; Larson and Fukami, 1984; Mathieu and Zajac, 1990; Michaels and Spector, 1982; Parasuraman, 1982; Price and Mueller, 1986a; Spencer, Steers, and Mowday, 1983; Staw 1984; Steel and Ovalle, 1984; Stumpf and Hartman, 1984; Thompson and Terpening, 1983). In addition job satisfaction has been linked to other behaviors such as transferring (Campion and Mitchell, 1986; Todor, 1980), intending to quit (Hom, Griffith, and Sellaro, 1984; Mowday, Koberg, and McArthur, 1984), and lateness (Adler and Golan, 1981; Farrell and Robb, 1980). Research has also shown that job satisfaction can affect employee levels of organizational commitment (Angle and Perry, 1981; Aranya, Kushnir and Valency, 1986; Ferris and Aranya, 1983; Lincoln and Kalleberg 1990; Mulinge, 1994; Price and Mueller, 1986a; Sorenson, 1985; Wakefield, 1982; Wallace, 1995). That is, a high level of job satisfaction improves worker commitment to the organization.
Committed employees, on the other hand, are also thought to be more innovative (or creative) and thus capable of sustaining an organization’s competitiveness (Katz and Kahn, 1978).

Based on the above, it is important for employers (management) to understand what produces satisfaction and commitment among their employees. Managers can, after determining the factors that produce satisfaction and commitment, initiate changes that may increase employee satisfaction and commitment and as a result decrease some of the negative behaviors cited above such as absenteeism, tardiness, and turnover while at the same time strengthening positive behaviors such as increased productivity and innovativeness. By examining gender differences in the determinants of job satisfaction and organizational commitment, I hope to identify those conditions of the workplace for which change might be expected to improve worker satisfaction and commitment and, which in turn, might induce more effective delivery of services.

Concerning the study's contribution to development policy, the study focuses on agricultural technicians who are the backbone of the leading economic sector (agriculture) in Kenya (Republic of Kenya, 1989:103; Sharpley, 1986; Lecaillon, Morrison, Schneider, and Thorbecke, 1987) and of the economies of most developing countries. A poor performance by the sector affects the whole economy (Sharpley, 1986). This is clearly evident from the continued investment of considerable resources toward the training of qualified agricultural manpower, the intensification of agricultural research, and toward the development of favorable agricultural policies by governments in the developing nations. Such efforts have led to considerable gains but have fallen short of enabling the agricultural sector to effectively serve the role of a leading economic sector. Consistent with Mulinge (1994), I argue that the job satisfaction and organizational commitment of the agricultural technicians, which have been overlooked totally by past efforts aimed at improving the performance of the agricultural sector, is one of several possible key missing links. As the backbone of the agricultural sector, the agricultural technicians are responsible for the development and dissemination of
technological know-how and advances. They are either engaged in agricultural research or in educating farmers about better farming techniques (commonly referred to as extension services). The job satisfaction and commitment of these technicians, therefore, may be equally as important as other factors such as the existence of arable land, suitable policies, favorable climatic conditions, the availability of technological choices, and the availability of professionally trained manpower if agricultural policies and research are to bear tangible fruits. Understanding what produces satisfaction and commitment among them could lead to improved agricultural productivity. After all, both satisfaction and commitment have, at least in the developed countries, been linked to important worker characteristics that I consider crucial for agricultural technicians in the developing countries to formulate and effectively implement suitable agricultural policies. However, it should be noted that this study does not claim that job satisfaction and commitment offer the sole remaining breakthrough in agricultural development.

A final importance of the study lies in the subject of gender inequalities in Kenya. More than ever before, Kenyan women, in general, are increasingly becoming more concerned about their position within the various social, economic, and political institutions. Within the economic institution, women's position can be viewed in terms of their level of participation in the labor market and the way they are treated as a group once they enter the labor market. In this regard, a central concern for women has been their position and experiences in the labor market. Studying the job satisfaction and organizational commitment among female and male employees in Kenya is, thus, important because these are considered to be a reflection of differential experiences in workplace conditions and outcomes for males and females.
CHAPTER II
LITERATURE REVIEW

Before I embark on an extensive review of the theoretical and empirical literature on job satisfaction and organizational commitment, I will first define and discuss these concepts as they are used in the literature. The concepts, although related, are distinct (Brooke, Russell and Price, 1988; Locke, 1976; Mowday, Steers and Porter, 1979; Price and Mueller, 1986a; Steers, 1977).

Job Satisfaction

Broadly, job satisfaction has been defined as the degree to which an employee likes his/ her job (Smith, Kendall and Hulin, 1969; Price and Mueller, 1986a). Traditionally, this concept has been viewed as a global (Brayfield and Rothe, 1951; Quinn and Staines, 1979) or as a dimensional (Smith et al., 1969) concept. For the purpose of this study the global approach that addresses the overall degree to which employees like their jobs rather than the degree to which they like different facets of their job such as pay, supervision, and promotion will be adopted. The global approach is preferred because the study considers the different facets to be organizational variables which may influence employees' overall job satisfaction.

Organizational Commitment

Overall, there appears to be less agreement regarding the meaning of the concept of organizational commitment than there is about job satisfaction. Some recent reviews have even pointed to the existence of up to ten definitions of this concept (see Mowday et al., 1982; Reichers, 1985). However, for the purpose of this study, the definition that is most frequently found in the organizational psychology literature will be adopted. This definition views organizational commitment as the employee's identification with, and involvement in, a particular organization (Allen and Meyer, 1990; Lincoln and Kalleberg, 1985, 1990; Mowday
et al., 1982). It represents what most scholars (see, e.g., Buchanan, 1974; Mottaz, 1987; Mowday, Steers and Porter, 1979; Mowday et al., 1982; Porter et al., 1976; Porter, Steers, Mowday and Boulian, 1974) term "attitudinal commitment" and has been termed "affective commitment" by Allen and Meyer (1990). It depicts an active relationship with the organization such that individuals are willing to give something of themselves in order to contribute to the organization's well-being (Mowday et al., 1982). Conceptually, it is characterized by "a) a strong belief in, and acceptance of the organizational goals and values; b) a willingness to exert considerable effort on behalf of the organization; and c) a strong desire to maintain membership in the organization (Mowday et al., 1982:27)."

**Theoretical Framework: Social Exchange Theory**

Job satisfaction and organizational commitment studies have mainly utilized one or a combination of three broad theoretical approaches: the social psychological (exchange) and the economic approaches as well as a more sociological approach. It is, however, the social psychologists' perspective, characterized by the equity, expectancy, investment, and values contingency theories, that seems to dominate the literature. Generally speaking, exchange theory argues that individuals enter social relations in anticipation of rewards or benefits in exchange for their inputs/investments in the relationship. The rewards could be both intrinsic and extrinsic factors while inputs/investments include factors such as effort, status, skill, education, experience, seniority and productivity. Economic theory, on the other hand, does not directly examine satisfaction and commitment, but argues that an employee's decision to leave or stay with an organization is the result of a rational cost-benefit assessment. This assessment is made in terms of wage gain and skill utilization with the job market as a conditioning factor. Finally the "sociological" approach views job satisfaction and organizational commitment as a function of the existence of structural conditions that are often manipulated by those in control. It is the exchange perspective that constitutes the
major theoretical framework adopted by this study. The theoretical literature presented below, thus, concentrates on arguments presented by this approach in general and as it is applied to job satisfaction and organizational commitment.

Applying exchange-based arguments developed in industrialized nations to Kenya is liable to the charge of cultural indifference. This is especially so considering that differences in cultural values and beliefs have been associated with variations in work-related attitudes and behaviors. Nakame (1970) and Vogel (1963, 1975), for example, argue that the commitment and productivity of Japanese workforce could be viewed in terms of Japanese traditional values that stress groupism and loyalty, facilitate the creation of an enterprise community, and motivate employees to subordinate their personal or class interests to those of the firm. Consistent with Mulinge (1994), I do not consider this to be true for Kenya for several reasons. First, as Mulinge argues, the colonization of Kenya coupled with the introduction of Western values, especially through Western formal education, considerably weakened and transformed the African cultural beliefs and values in general. During the early colonial days, for example, African cultural values and beliefs ran counter to the notion of paid labor and the British had to rely on coercive mechanisms such as compulsory taxation payable in cash only to force Africans to enter paid labor. However, the spread of Western education and a monetary economy transformed all such cultural barriers to paid labor. The current trend in Japan whereby traditional cultural influences on work values and attitudes are said to be changing due to exposure to Western values among the young generation (see Odaka, 1975; Sengoku, 1985) is supportive of this view. In addition, this study focuses on agricultural technicians whose socialization into work roles occurs in academic institutions modeled after those in the industrialized nations. Because Kenya's education system is at base a replica of the British school system, I do not anticipate these technicians to differ significantly from those in the West in terms of job expectations and values, and work
attitudes and behaviors. Finally, the organizations that are the units of analysis for this study have been structured along those in the West and are thus similar in bureaucratic structure.

Exchange theory utilizes a market place analogy to deal with systems of social relationships in complex organizations (Rambo, 1982). The theory has its origin in the works of George Homans (1958, 1961) who applied what is now termed exchange theory to social relationships existing within small groups. He argued that interactions between persons are analogous to an exchange of goods that carry with them some value. That is, human beings strive to satisfy their needs by entering into negotiations with other humans in a manner that resembles a marketplace barter. Individuals exchange aspects of their mutually exclusive benefits between one another so that each derives some measure of that which he/she seeks, while at the same time each is instrumental in the other achieving some measure of his/her interest. This, in the words of Mangham (1982), translates social life into a mutuality of satisfaction deriving from negotiations around individual needs.

The social exchange theory rests on two basic assumptions. First, it assumes that people seek that which is rewarding in their lives and that they seek to avoid that which is punishing (Mangham, 1982). At the root of the theory is thus the argument that "behavior is the product of conditioning and working out of basic psycho-social needs" (Mangham, 1982:176). Second, the theory assumes that actors have needs and goals, that they (actors) know what the goals are and that at the onset of an encounter, the initiation of a relationship, each actor will attempt to structure his/her own behavior and that of others present so as to achieve his/her own ends. According to the exchange theory, a fundamental consideration governing interpersonal and intergroup relations is found in the anticipation of rewards or benefits. Individuals entering a social exchange will thus draw on the behaviors they calculate will yield the highest return (Rambo, 1982). The sought rewards vary from those found in the consequences of the action to those that are an integral part of an activity that is engaged in for its own sake. According to Rambo (1982), however, not everything in the exchange is a
gain. Attaining rewards often requires that a cost be incurred by those parties involved in the interchange. Individuals will thus enter into social relations in anticipation of costs, and behaviors emerging from such situations manifest an attempt to achieve the greatest level of reward commensurate with the costs surrounding such activity. That is, behavioral compliance on the part of the individual is exchanged for something which is perceived to be contingent in the individual behavior (Pfeffer, 1982).

It was Blau (1964) who extended the exchange theory model in order to deal with the social activities observable in complex organizations. He proposes a supply and demand model that extends Homans' theory to include the broader social structure in the formation of reference standards by individuals. Blau contends that social behaviors found in both simple and complex groups follow the same general principles as those presented by Homans. However, he views the two as distinctive because social behavior for small groups (or microstructures) involves the existence of relationships between individuals while for complex organizations (or macrostructures) the most important units that determine the structure of these systems are themselves social groups. In addition, for complex organizations it is in the dynamics of intergroup relations that the most important dimensions of organizational behavior are to be found. Here group consensus and shared ideas are important factors in directing the exchanges that take place among the groups that constitute the organizations. Such standards frequently concern values that enter into the assessment of the gains and losses that result when one group interacts with another.

As applied to work organizations exchange theory argues that individuals perform for, or make contributions to, an organization in exchange for certain rewards or inducements (Scholl, 1981). Prospective members to an organization, it is argued, bring needs and goals and agree to supply their skills and energies in exchange for organizational resources (such as values, rewards or payments from the organization) capable of satisfying those needs and goals (Angle and Perry, 1983; Becker, 1964; Farrell and Rusbult, 1981; Hrebinjak and Alutto,
At the heart of the exchange is an implicit agreement that Kotter (1973) has referred to as the "psychological contract." This contract, unlike legal contracts which are normally characterized by explicit sets of rights and obligations, is a rather vague arrangement in which many obligations remain unspecified. Nevertheless, specific expectations do exist on the part of both parties and, to the extent that there is a favorable balance or match between what the organization provides and the members' expectations (or between inducements and contributions) the members' satisfaction appears to be maximized (Kotter, 1973) and performance is maintained (Scholl, 1981).

From the viewpoint of exchange theory, commitment to the organization is the result of benefits (or rewards) and advantages which accrue to the worker for his/her membership to the organization relative to costs (Stevens, Beyer and Trice, 1978). Individuals, it is argued, attach themselves to an organization in return for certain values, rewards or payments (Angle and Perry, 1983; Becker, 1964; Farrell and Rusbult, 1981; Hrebiniak and Alutto, 1972; March and Simon, 1958; Mottaz, 1981; Mowday et al., 1982). The rewards/payments could be intrinsic or extrinsic benefits that the workers receive from their job (Herzberg, 1966; Kalleberg, 1977).

Also termed task rewards (see Katz and Van Maanen, 1977), intrinsic rewards are directly associated with doing the job (Greenberg, 1980; Herzberg, 1966; Kalleberg, 1977; Mottaz, 1985). They fulfill human goals related to the individual workers' internal sense of fulfillment. Although no commonly agreed upon list of such rewards exists, they include the freedom to plan work (or self-direction and responsibility), the chance to learn new skills and abilities, opportunities to use one's skills and abilities (challenging work), being informed about the job, job variety, creativity, the ability to do the job well, sufficient feedback regarding the effectiveness of one's effort, being fairly rewarded for work accomplished, the chance to see the results of work done, and the chance for self expression through work
Extrinsic rewards, in contrast, are not directly received through performing the work itself but as a by-product of the work (Greenberg, 1980; Kalleberg, 1977). They include those tangible rewards provided by the organization for the sake of motivating the workers to perform their tasks and maintain membership in the organization such as pay, fringe benefits, promotion, job security, and good working conditions (Kalleberg, 1977; Mottaz, 1985; Price and Mueller, 1986a; Tausky, 1984; Voydanoff, 1978). These have been termed organizational extrinsic rewards. Extrinsic rewards also include social rewards derived from interacting with others on the job. These are based on the quality of interpersonal relationships and include friendly, helpful, and supportive co-workers and supervisors (Greenberg, 1980; Kalleberg, 1977; Mottaz, 1985; Price and Mueller, 1986a; Rothman, 1987; Tausky, 1984; Voydanoff, 1978) and a cohesive work group (Price and Mueller, 1986b; Randall and Cote, 1991). A final category of extrinsic rewards are the side-bets (Becker, 1960) that workers have acquired over time such as seniority rights, pension (or retirement) programs, accumulated benefits and established friendship between a worker and co-workers and management. Because these have forfeiture implications if the worker quits, they induce workers to retain their membership in the organization. In Chapter 3, there will be further discussion on specific intrinsic and extrinsic rewards. Empirical studies will be reviewed with regard to these rewards and other concepts that will be included in the study.

Exchange-Based Models of Satisfaction and Commitment

Exchange theory as it is applied to job satisfaction and organizational commitment is dominated by the two popular process models of equity theory and expectancy theory. Studies have also relied on two additional models namely, the investment and values contingency models. While the former uses "investment" to explain employee decisions to
retain membership in an organization (Scholl, 1981), the latter argues that rewards are important to the degree that the employee values them (see e.g. Kalleberg, 1977; Mottaz, 1985). All four models explain membership and performance in organizations through an exchange process by arguing that commitment is developed through a positive exchange relationship that exists between employees and the organization (Scholl, 1981). They rely on rewards, costs and/or investments to explain membership and performance in an organization. But they differ in terms of how these are used. In equity theory, for example, the employee compares rewards to inputs relative to those of a comparison other to determine the fairness of the exchange (see e.g., Adams, 1965; Anderson, 1976; Berger, Zelditch, Anderson, and Cohen, 1972; Blau, 1964; Jasso, 1978; 1980; 1983a; 1983b; Markovsky, 1985; Walster, Berscheid, and Walster, 1973). Expectancy theory, on the other hand, uses rewards as expectations that employees bring to the work environment (see Galbraith, 1977; Lawler, 1973; Mowday et al., 1982; Mowday, Porter and Stone, 1978; Steers and Mowday, 1990; Steers, 1977; Porter and Lawler 1968; Vroom, 1964). Little attention is paid to the distribution of these among fellow employees. For the investment model, (see Rusbult, 1980; Farrell and Rusbult, 1981; Rusbult and Farrell, 1983; Rusbult, Farrell, Rogers and Mainous, 1988), investments have forfeiture implications and this makes them costs to the employee who contemplates leaving. In all cases however, the rewards and/or investments have to be valued by the employee (Kalleberg, 1977; Locke, 1976; Mottaz, 1985) and hence the values contingency model.

The Equity Model

Equity theory (see Adams, 1965; Anderson, 1976; Walster, Berscheid, and Walster, 1973), also termed justice theory (see e.g. Berger, Zelditch, Anderson and Cohen, 1972; Blau, 1964; Jasso, 1978; 1980; 1983a; 1983b; Markovsky, 1985), like expectancy theory and investment theory, offers more specific formulations based on the inducement/contribution
notion advanced by the exchange perspective. The original formulation of the theory is traceable to Adams (1963; 1965) who stressed equity and inequity as the criteria when rewarding or punishing employees. At the core of Adams' concept of equity is the process of social exchanges in which individuals give and take. Such exchanges involve reciprocity and social comparison processes in which people expect to receive something in return for effort or a favor given. Individuals compare their inputs (contributions) and outcomes (inducements) to those of comparable others. An employee who works hard, for example, expects the employer to recognize this and reward him/her accordingly. Adams, however, points out that no attempts are made by employees to objectively assess how much effort they are putting into their job and how much they receive in return in terms of rewards. What is important is thus how the exchange is perceived by both the employer and the employee. In a majority of cases employees determine the fairness of the exchange through a social comparison process (Adams, 1963; Blau, 1964; Carrel and Dittrich, 1978; Homans, 1961). They compare their inputs/investments - such as status, seniority, skills, experience, task performance, education and effort - and rewards/outcomes with those of comparison persons or groups of persons within or outside the same work environment to determine what their equitable return should be. The rewards are usually valued goods that are obtainable in a social context (Markovsky, 1985) and may include material goods such as pay and related monetary benefits, social goods and social opportunities like promotion opportunities in a work organization, or other working conditions such as autonomy and job variety.

Equity theory is grounded on three basic assumptions: First, the theory assumes that individuals are guided by a moral system in which fair distribution of rewards is a fundamental tenet (Vroom, 1964). Second, it is assumed that employees expect a fair, just or equitable return for what they contribute to their job (Carrell and Dittrich, 1978). Finally, the theory assumes that employees who perceive themselves as being in an inequitable situation will seek to reduce the inequity (Carrell and Dittrich, 1978). The primary proposition of equity theory is
that individuals review their inputs and outcomes of themselves and others and in situations of inequity experience greater distress (or a feeling of injustice) than individuals in equitable situations (Adams, 1963, 1965; Blau, 1964; Carrell and Dilrich, 1978; Homans, 1961). According to Adams (1965), the distribution rules governing the determination of fairness which he terms "equity" require that the ratio of investments to outcomes for a person equals that for all comparison others. Inequity, or discrepancy between inputs and outcomes compared to those of others, thus exists if the individual perceives that the ratio of his/her outcomes to inputs is unequal to that of the comparison person(s). The opposite is true of equity. Such a situation, however, will only obtain when the individual and the comparison other are in a direct exchange relation and, when both are in an exchange relationship with a third party and the individual compares himself/herself with the comparison other.

Equity theory posits that membership and performance in the organization will continue when a balanced ratio between inputs and outcomes compared to those of others exists (Scholl, 1981). Perceived inequity usually creates tension in the affected individual. According to Adams (1965) the amount of tension created is proportional to the magnitude of the inequity. The created tension motivates the individual to reduce the inequity by engaging in the following six justice restoring behaviors: 1) The individual may alter his/her inputs. For example, he/she may increase/decrease production or increase time off from the job. But since the threshold for perceived inequity is higher for over-reward than for under-reward the likelihood that perceived under-reward will lead to decreased input is greater than the likelihood that perceived over-reward will lead to increased input (Adams, 1965). 2) The individual may try to improve outcomes as compared to the reference person(s). This applies especially to situations in which inequity results from underpayment for the focal person and could involve the workers negotiation with management for higher pay. 3) The individual may distort his/her inputs and/or outcomes cognitively or he/she may alter the importance and relevance of inputs or outcomes. 4) An individual may act on the object of comparison by
altering or cognitively distorting the comparison other's inputs or outcomes. A group of workers may, for example, try to induce a "rate buster" to decrease output or may pressure fellow workers to speed up if they are considered to be slackers. 5) The individual may change the object of comparison to bring about a more realistic comparison. Where an actor and the comparison other are in an exchange relation with a third party and the actor experiences inequity, he/she may select a different comparison other. 6) Finally, the individual may leave the field/organization. This could take the form of quitting, transferring to a different work unit, tardiness or absenteeism. According to Adams, the probability of using this mechanism (leave the organization) to restore equity increases with the magnitude of inequity and decreases with the availability of other means to reduce inequity. Equity theory, however, predicts that the reaction to a feeling of inequity/injustice will be proportional to the magnitude of the inequity experienced (Adams, 1965:281).

Several limitations have been identified with equity theory as formulated by Adams. First, the theory has been accused of making the assumption that individuals only make local comparisons without regard to the larger social structure. Second, equity theory does not deal with the possibility that both parties in an exchange relationship may be unjustly rewarded. Third, concepts are usually not defined explicitly. This makes it "difficult to specify a priori, for example, the relevant rewards and investments in a given situation" (Markovsky, 1985:823). Fourth, the theory does not fully deal with the impact of the broader social norms that govern justice judgement (Berger et al., 1972). Fifth, justice/equity theory fails to address fully the differential impact of under-reward vis-a-vis over-reward (Berger et al. 1972; Jasso, 1978; 1980; Markovsky, 1985). Finally, the theory deals only with quantifiable goods that can be transferred between individuals and does not attend to "quality" goods (Berger et al., 1972; Jasso, 1980).

Attempts have been made to both extend and refine Adams' theory. Notable among these are the works of Jasso (1978, 1980, 1983a) and Markovsky (1985). Jasso combines
aspects of equity theory and status value theory (see Berger et al., 1972, for a review of status value theory) in trying to develop a new justice theory. Her theory stresses underreward as opposed to overreward. She argues that justice will be perceived by an actor if the amount of reward the actor perceives himself/herself to have, termed the "actual share" in the theory, and the amount of reward the actor believes to be fair, termed the "just share" in the theory, are equal. If the actual and just shares differ, injustice will be perceived. According to Jasso, justice evaluations may be made for any social good. She outlines three dimensions of goods that in her thinking are valuable in society: Primary vs. secondary goods, social vs. natural goods, and quality vs. quantity goods. Whereas primary goods are those that are valued by everyone in society, secondary goods are those that are not valued by everyone. Social goods, on the other hand, are those that are controlled by society and include income, power, and status among others while natural goods are not under societal control and attributes intrinsic to individuals such as beauty and intelligence. Finally, quality goods are nonadditive and nontransferable goods such as beauty and social honor whereas quantity goods are additive and transferrable. Wealth and income are good examples of quantity goods. Implicit in Jasso's theory is the notion that some goods may be more important than others to the individuals, and that the importance of certain goods may vary over time.

To facilitate testing of her theory, Jasso makes two simplifying assumptions: First, she assumes that all members of a social group value the same good. Second, within social aggregates, the just term of a good is the arithmetic mean of the distribution of the good (Jasso 1980). The scope of her theory, however, excludes the determination of the just share and the determination of which goods are valued. The theory also does not specify the unit of comparison. Jasso's theory claims that behavior can be predicted on the basis of the justice evaluation as long as the research can determine two things: which goods are valued by the actor, and what the individual believes to be the just share of the valued good. Markovsky (1985), on the other hand, extends status value theory by relaxing the restriction that only
generalized others are considered when making justice evaluations. His theory combines ideas from equity theory, status value theory and Jasso's formulation of justice theory. Specifically, he incorporates local comparisons to concrete actors. According to Markovsky, "issues of distributive justice or equity arise when money, praise, or pieces of pie do not seem to have been meted properly (Markovsky, 1985:822)." However, he posits that "...justice is in the eye of the beholder." But what the beholder's eye sees is determined by the larger social context. Actors, he argues, compare rewards and investments to those of a reference standard in order to decide what level of reward is fair. The reference standard can be a generalized other, a specific person, or a specific group. It is, however, the importance that an actor attaches to justice in given situations or comparisons that will affect the justice evaluation. Hence, if an actor is indifferent to justice, no or only a minor sense of injustice will ensue and justice restoring behavior may not be forthcoming. But if justice itself is highly valued, the actor is not likely to be indifferent and any justice restoring behavior is likely to be especially vigorous.

To sum up, equity theory posits that individuals act to alleviate tension by decreasing the inequity they feel exists in a given exchange relationship. In other words, people seek to be treated fairly or seek justice in an exchange relations. The theory is primarily concerned with the relation between an individual's own input (investment/outcome (reward) ratio and that of a person with whom he/she compares himself/herself. Inputs are investments or contributions the employee feels that he/she is making to the job while rewards/outcomes are the benefits in terms of valued goods reaped from the job. The theory's main proposition has received considerable support from both laboratory experiment studies (see e.g., Folger, Rosenfield, Grove and Cockran, 1979; Folger, Rosenfield, Hayes, and Grove, 1978; Greenberg, 1987; 1988; Greenberg and Ornstein; 1983; Griffeth, Vecchio and Logan, 1989; Larwood, Levine, Shaw, and Hurtwiz, 1979; Markovsky, 1985) and from field studies (see e.g., Carrell and Dittrich, 1978; Dittrich and Carrell, 1979; Duchon and Jago, 1981; Lawler, 1968; Lord and Hohenfield, 1979; Mowday, 1983, Walster, Walster, and Berscheid, 1978).
Studies by Greenberg (1988), Griffeth et al. (1989), and Lawler (1968), for example, found equity to have a significant effect on job satisfaction. The Greenberg (1988) study also supported the position by equity theory that reaction to inequity will be proportional to the magnitude of the inequity experienced.

The Expectancy Model

Expectancy theory (see Graen, 1969; Lawler, 1973; Porter and Lawler 1968; Vroom, 1964) is another process theory that utilizes exchange concepts in explaining individual decision processes of membership and performance in an organization. Like equity theory, the theory provides an understanding as to why people choose a particular behavioral pattern to accomplish goals (Ivancevich et al., 1977). Expectancy theory was first developed as a motivation theory and is based on a definition of motivation as a process governing choices among forms of voluntary activity (Galbraith, 1977). Over time the theory has, however, been extended to explain other behaviors in work organizations such as job satisfaction, occupational preference, organizational commitment and employee turnover. The theory is based upon three assumptions: 1) that people do not just respond to events after they occur; they anticipate (or expect) that things will occur and that certain behaviors in response to those behaviors will probably produce predictable consequences. In short, human behavior is determined by how the world is perceived (see Owens, 1991); 2) that humans usually confront possible alternative behaviors (and their probable consequences) in rational ways (Owens, 1991); and 3) that through experience, individuals learn to anticipate the likely consequences of alternative ways of dealing with events and, through this learning, modify their responses (Owens, 1991).

The first explicit theoretical formulation of expectancy theory was developed by Vroom (1964) building on some earlier work of Georgeopoulous, Machoney and Jones (1957). The theory is based on the idea that "the strength of a tendency to act in a certain
way depends on the strength of an expectancy that the act will be followed by a given consequence (or outcome) and on the value (or the attractiveness) of that consequence (or outcomes) to the actor” (Lawler, 1973:45). In other words, people undertake actions according to the probability that these actions will lead to some instrumentally valued outcomes (Mitchell and Biglan, 1971; Starke, 1980; Vroom, 1964). Individuals will choose the behavior they perceive as most directly leading to things they want. The force exerted to achieve the outcome is, however, a function of the valence of the outcome for that person; that is, how badly the person wants the outcome (Dubrin, 1978). Thus, an individual will, for example, be motivated to increase productivity if he/she perceives that his/her efforts will result in a successful performance that will result in desired outcomes (Vroom, 1964). The desired outcomes can be of two types: Intrinsic rewards that relate directly to the work itself, and extrinsic rewards that do not directly relate to the nature of the work.

As applied to job satisfaction and organizational commitment, expectancy theory argues that employees enter the employment relationship with certain needs, desires, skills and expectations and values which they look to the work environment for realization (see Steers, 1977; Mowday et. al., 1982). Expectations may involve beliefs about the job or the rewards for a satisfactory performance, the availability of interpersonal contacts, and so forth, or, generally speaking, beliefs about the nature of the employment and the structural conditions of the workplace (Steers, 1977; Steers and Mowday, 1990).

Employees differ in their expectations depending on their values and needs at the time of entry. The expectations each individual has are shaped by individual characteristics such as occupation, age, tenure, family responsibility, family income level, personal work ethic, previous work experience and personality (see Federico, Federico and Lundquist, 1976; Hines, 1973; Mangione, 1973; Mobley, Horner and Hollingworth, 1978; Mowday, Porter and Stone, 1978; Porter and Steers, 1973); available information about the job; and organization and alternative job opportunities. Based on these factors "people determine consciously or
unconsciously what they expect from a job: What they feel they must have, what they would like to have and what they can do without" (Steers and Mowday, 1990:258). Where individuals are provided with more complete and more accurate information about prospective jobs, for example, they are likely to make more informed choices and thus are more likely to develop more realistic job expectations that are more easily met by organizations (Steers and Mowday, 1990).

Where rewards/outcomes (such as pay, promotions, and fringe benefits) match or are near the expected level, satisfaction and commitment are expected to result. On the other hand, dissatisfaction and lower commitment can result if rewards fall far below those anticipated by the worker. Hence, an organization that facilitates its workers to realize their expectations, meet their demands and to properly utilize their skills is not only said to have a satisfied workforce but also a committed one with reduced intent to quit (Steers, 1977).

According to Galbraith (1977) dissatisfied workers will exhibit a search behavior such as the search for an alternative job outside the organization. The opposite will be true of satisfied workers.

The basic propositions of expectancy theory have been supported though empirical work (see e.g., Arnold and Feldman, 1982; Buchanan, 1974; Glenn and Weaver, 1982; Hodson, 1989; 1985; Kalleberg, 1977; Lee and Mowday, 1987; Mortimer and Lorence, 1979; Mowday and McDade, 1980; Muchinsky and Turtle, 1979; Porter and Steers, 1973; Premack and Wanous, 1985; Steers, 1977; Wanous, 1980, for a review). Lee and Mowday (1987), for example, found met expectation to be significantly related to both job satisfaction and organizational commitment.

The Investment Model

The investment model, championed mainly by Rusbult and Farrell, (see Rusbult, 1980; Farrell and Rusbult, 1981; Rusbult and Farrell, 1983; Rusbult, Farrell Rogers and Mainous,
1988), is the third model that is shaped along the general tradition of exchange theory. Unlike equity and expectancy theories, it was specifically developed to explain satisfaction and commitment. The theory is regarded as an integrative theory of job commitment and turnover (Farrell and Rusbult, 1981) that offers an alternative explanation for behavior stability in the employment relationship that transcends equity and expectancy theoretical postulates (Scholl, 1981). Evidence from studies by Chinoy (1952) and Hearn and Stoll (1975) suggests that in some cases workers maintain their membership in an organization even when expectations are not met. Both studies found that auto workers and cocktail waitresses respectively entered their work with a pattern of high expectations. But although most of these expectations were not met, many of them nevertheless continued working with the organization.

Generally speaking investments "refer to the participation in an organization to an extent that possible participation in another organization is decreased" (Sheldon, 1971:144) and may develop with or without the person's awareness. More specifically, they are the resources that an employee has put into a job that have become intrinsic to the position the employee holds such as the number of years in the job, job tenure, nonportable training, familiarity with the organization and supervisor, and noninvested retirement funds and resources that were originally extraneous but have become connected to the job e.g. convenient housing/home ownership and travel arrangement, spousal employment, community ties and friends at work (Becker, 1960; Ritzer and Trice, 1969; Rubin and Brockner, 1975; Rusbult and Farrell, 1983).

The investment model is distinct from the equity and expectancy models because the exchange relationship in terms of inducements/contributions for the investment model involves a time lag (Scholl, 1981). Individuals make a contribution today in expectation of future inducements. The model argues that individual investments into a particular organization act as stabilizing or maintenance mechanisms. More specifically, future gains/inducements that
are the outcome of investments into the organizations are said to tie the individual to the organization even when the individual becomes dissatisfied with the exchange.

The investment model is grounded on Becker's (1960) "side-bets" theory. According to Angle and Perry (1981) Becker's theory is prototypical of what they term as the "member-based" (as opposed to the organization-based) model of organizational commitment. In this model, commitment is treated as a structural or accrual phenomenon, one in which a series of investments or "side-bets" come to commit one to one's role (Hrebiniak and Alutto, 1972). According to Becker (1960), over time workers acquire "side-bets" or investments such as seniority rights, pension/retirement programs, accumulated benefits and established friendship between a worker and co-workers and management that have forfeiture implications if the worker was to leave. The side-bets may be "placed" by the focal person, or they may be placed for the person by the system in the form of "impersonal bureaucratic arrangements" (Becker, 1960:36). What is important, however, is that certain penalty-producing arrangements have been entered into and because of the costs or forfeiture implications involved they have placed restraints on the employee's options (Stebbins, 1970). The nature of the side-bets could vary rather widely. They could include several varieties of incremental side-bets such as gradual adaptation to one's organizational role, investment of one's time and energies in the organization over a span of time, and even such defaults as the failure to improve one's education (which, presumably, would have increased one's extraorganizational opportunities). Side bets could also include personal ascribed characteristics such as age, and sex. Grunsky (1966) and Hrebiniak and Alutto (1972) treat age and sex as side-bets in view of their ostensibly constraining influence on alternative employment.

The most explicit specification of the investment model has been formulated by Rusbult and Farrell (see Rusbult, 1980; Farrell and Rusbult, 1981; Rusbult and Farrell, 1983; Rusbult, Farrell, Rogers and Mainous, 1988). Their model states that "job satisfaction, or positivity of affect toward one's job, is primarily a simple function of the rewards and costs
associated with the job" while job commitment is "a function of rewards, costs, investment and alternatives" (Farrell and Rusbult, 1981:80). That is, job satisfaction equals rewards minus costs while commitment equals the difference between cost and rewards plus investments plus opportunity. Rusbult and Farrell, however, seem to stress the commitment aspect of the investment model. They define commitment after Kiesler as "the binding of the individual to behavioral acts" (Kiesler and Sakumura, 1966:349). Job commitment, they argue is related to the probability that an employee will leave a job. It involves feelings of psychological attachment, independent of affect, and reflects the behavioral intention, primarily (but not solely) the degree of intention to stay with a job (Farrell and Rusbult, 1981). Commitment thus exists to the extent that the employee perceives that he/she is "connected" to the job.

As alluded to above, Farrell and Rusbult's investment model links job satisfaction and commitment to several factors: the rewards and costs derived from the job, the quality of the individual's job alternatives, and the magnitude of the individual's investment in the job. Whereas job rewards refer to aspects of the job such as high pay, autonomy, job variety and fringe benefits, among others, job costs refer to the absence of certain job rewards. Good examples of job costs include unexpected variation in workload, inadequate resources, unfair promotion practices, lack of promotional opportunities, low pay, low fringe benefits, routinization and lack of autonomy (Rusbult and Farrell, 1983), among others. Job alternatives (or alternative quality), on the other hand, stands for an alternative job or not working at all. Rusbult and Farrell's use of labels as rewards and costs seems to suggest a continuum of the two rather than being distinct concepts. High pay, for example, is classified as a reward while low pay is a cost. But the dividing line between the two is never clarified.

The investment model predicts that increases in job rewards and decreases in job costs lead to strong job commitment. It also posits that job alternatives have an (additive) effect on commitment; if an individual's job alternatives are poor (either because of oversupply of
similarly qualified workers or due to other factors) commitment to the current job is boosted (Farrell and Rusult, 1981; Rusbolt and Farrell, 1983). Finally the model specifies investment size to be an important determinant of commitment. Investments in this case refer to the resources that have been "put into" an association in most cases with the intent to improve the long term value of the relationship e.g. length of service, acquisition of nonportable skills and retirement programs. These serve to increase commitment by increasing the costs of leaving the association/organization. Such invested resources may be material or psychological, intrinsic or extrinsic and fit with what Becker (1960) refers to as "side-bets" (see earlier discussion). As the magnitude of the individual's investment increase so does commitment to the job (Farrell and Rusult, 1981; Rusbolt and Farrell, 1983). For these costs and rewards to have effect on job satisfaction and commitment, however, employees must value them. That is, costs and rewards are a multiplicative effect of what is perceived to exist and what is valued by the employees.

In summary, the investment model as developed by Farrell and Rusbolt asserts that job satisfaction should be greater to the extent that the job offers high rewards and low costs while commitment, which is a more complex, multidetermined phenomenon, increases with increases in job rewards, decreases in costs, increases in investment size and decreases in alternative opportunites. The model has been highly supported through empirical research. The side-bets notion of the theory has, for example, been supported by a number of studies (see Alutto, Hrebinjak and Alonso, 1973; Brief and Aldag, 1980; Farrell and Rusbolt, 1981; Grunsky, 1966; Hrebinjak and Alutto, 1972; Rusbolt and Farrell 1983; Rusbolt, Farrell, Rogers, and Mainous, 1988; Sheldon 1971; Shoemaker, Snizek, and Bryant, 1977; Steers, 1977; Stevens, Beyer, and Trice, 1978). Such studies have found a positive relationship between investments and the propensity to remain. Farrell and Rusbolt (1981), for example, in a study of turnover found commitment to be associated with the magnitude of investments in addition to satisfaction with rewards and the quality of alternative opportunities. In the
same study they found job satisfaction to be best predicted by a combination of both reward and cost values. These findings are consistent with those realized by other researchers such as Buchanan (1974), Dubin, Champoux, and Porter (1975), Hrebiniaiak and Alutto (1972), and Pfeffer and Lawler (1980). Job alternatives have also been demonstrated to be negatively related to intent to remain in one's position (see Farrell and Rusbult, 1981; Pfeffer and Lawler, 1980; Rusbult and Farrell 1983; Rusbult et al., 1988, for example). Other works like those of March and Simon (1958), Marsh and Mannari (1977) and Price (1977) offer indirect support for this prediction.

The Values Contingency Model

The values contingency approach is clearly related to the exchange based equity and expectancy traditions. The approach has its initial origins in the work of Morse (1953) and thereafter in the writings of scholars such as Goldthorpe, Lockwood, Bochhofer and Platt (1968), Beynon and Blackburn (1972) and Russell (1975). According to these scholars job satisfaction could not be analyzed thoroughly without a knowledge of the meanings workers impute to their work activity. The approach seems to have been a response to the inability of the "differences in the nature of jobs people perform" explanation of variations in job satisfaction experienced by people with the same job characteristics. According to the values contingency argument such differences arise not only because people differentially evaluate similar "objective" job characteristics but also because of differences in what people seek to gain from their work (Kalleberg, 1977).

Work values refer to what the employee wants, desires or seeks to attain from the job (Kalleberg, 1977; Locke, 1976; Mottaz, 1985). They are the standards against which the individuals assess or judge the job situation and reflect the individual's awareness of the conditions he/she seeks from the work environment (Kalleberg, 1977). Values are distinct
from expectations (or one's beliefs about what will occur in future). What is expected may not correspond to what is wanted.

The best summation of the values contingency approach is presented by Kalleberg (1977) and Mottaz (1985) through their interactionist model of job satisfaction. The main argument presented by this model is that job satisfaction is a positive orientation towards work that is traceable to a congruency between the worker's perception of the work situation (along a variety of work dimensions) and his/her work values regarding those same dimensions (see Kalleberg, 1977; Katzell, 1979; Locke, 1969; Mottaz, 1985; Smith, Kendall, and Hulin, 1969). In other words, job satisfaction is a function of the interaction between perceived work characteristics and work values. To put it in Mottaz's (1985) language, "satisfaction represents a person-environment "fit" (p.366)." The values represent the importance that the individuals attach to the perceived work characteristics.

According to the values contingency approach, employees entering an organization bring to the job different goals, needs and values that they seek to satisfy through employment (Mowday et al., 1982; Steers, 1977). These influence the level of employee job satisfaction and commitment to the organization. That is, to the extent that a job permits the achievement of an employee's most valued job goals, his/her job satisfaction and commitment will be improved. According to Locke (1969:316), job satisfaction and dissatisfaction "are a function of the perceived relationship between what one wants from one's job and what one perceives it as offering." The smaller the discrepancy between wants and outcomes, the higher the level of job satisfaction. Based on the values contingency theory, however, employees differ considerably in what they seek to obtain from work (Kalleberg, 1977; Mottaz, 1985). That is, work may have a variety of meanings for individual employees. While some workers may value/assign greater importance to the intrinsic dimensions of work such as autonomy, task significance and job variety, others may value the extrinsic dimensions such as pay, fringe benefits, promotions, and co-worker and supervisory support (Kalleberg, 1977; Mottaz,
1985). Such differentially valued dimensions of work constitute potential sources of rewards for the workers. To understand the variation in job satisfaction among workers therefore, we need to consider both the values that the individuals have towards work and also the types of rewards that are available. The basic argument is that the effects of job rewards on satisfaction is contingent upon the levels of valuation of the reward. Highly valued rewards are likely to have greater effects on job satisfaction than rewards that are unimportant (Kalleberg, 1977; Mottaz, 1985).

Although the values approach keys on the interaction of structural features of the job and values in explaining job satisfaction, scholars of this approach, and especially Kalleberg (1977), acknowledge that rewards and values have independent and additive effects on satisfaction. While rewards have empirically been shown to be positively highly correlated with job satisfaction (that is, the greater the perceived rewards the greater the employee's job satisfaction), values have been shown to have a a negative (but weaker) correlation with job satisfaction (see e.g., Kalleberg, 1977; Lee and Mowday, 1987; Mottaz, 1988). Concerning values in particular, the above findings can be interpreted to mean that those who place high premium on rewards are likely to consider what is provided to be deficient and thus the negative effect of such rewards on job satisfaction.

The values contingency approach, it should be noted, partly comes from equity and expectancy theories. The approach is implicit in equity theory and explicit in expectancy theory. Both Jasso and Markovsky in their discussion of justice theory make reference to values. Specifically Jasso points to the need for goods to be valued by the individual if they are to have an effect in justice evaluation. Implicit in her theory is the notion that some goods may be more important and that the importance of certain goods may vary over time. For Jasso, behavior can be predicted on the basis of the justice evaluation as long as research can determine which goods are valued by the actor and what the individual believes to be the just share of the valued good. Markovsky, on the other hand, argues that the degree to which
justice is valued is important. Hence, actors who are indifferent to justice are likely to experience no or only a minor sense of injustice relative to those (actors) who highly value justice.

The importance of values, as indicated above, is explicit in expectancy theory. According to the theory both expectations and values are important in understanding the employee's job satisfaction and commitment. The theory is based on the idea that the strength of a tendency to act in a certain way depends on the strength of an expectancy that the act will lead to a given outcome and on the value (or attractiveness) of that outcome to the actor (see Lawler, 1973). In other words, people will undertake actions on the basis of the probability of achieving an instrumentally valued outcome or outcomes. Indeed according to Bray, Campbell, and Grant (1974), job values and expectations, through conceptually different, are highly related in practice. It is possible that employees develop higher expectations about those aspects of the job they most highly value.

A Comparison of the Four Exchange-Based Models

The four exchange based models of job satisfaction and organizational commitment reviewed above have certain similarities and differences that we need to highlight here. The equity, expectancy, and values contingency models, for example, view job satisfaction and commitment to be largely a function of job rewards and the meanings the employee attaches to these rewards. Equity theory posits that the important meaning for employees is the degree to which the distribution of the rewards is fair. Expectancy theory, on the other hand, holds that the important meaning of rewards for employees is the degree to which they meet their expectations. Finally, the values contingency approach views the important meaning of rewards to employees to be the degree to which they are valued. Running through the three models are, however, concepts that are similar. The equitable balance of inputs against outputs, the positive outcomes (or met expectations) and the valued outcomes that are at the
core of the equity, expectancy and values contingency theories, respectively, all take the form of extrinsic and intrinsic job rewards such as pay, fringe benefits promotional opportunities, a stress free job, social support, work group cohesion and job growth as the major extrinsic rewards and autonomy, job variety, tasks involvement and task significance as the main intrinsic job rewards and values.

As noted earlier, the values contingency approach partly comes from both the equity and expectancy approaches. Whereas the approach is implicit in equity theory, it is explicit in expectancy theory. Versions of equity/justice theory (e.g., Jasso, 1980, 1983a; Markovsky, 1985) do make reference to values in one form or another. Jasso argues that goods have to be valued by the individual for them to have an effect on justice evaluation. According to her, behavior can be predicted on the basis of justice evaluation if research can determine the valued goods and what the individual believes to be the just share of the valued goods. Markovsky, on the other hand, views the degree to which the individual values justice to be important in justice valuation. Job values are central in expectancy theory. The theory stressed both expectations and values to be important in producing job satisfaction and organizational commitment. According to the theory, it is both the strength of an expectancy for a certain outcome and the values (or alternativeness) of the outcome that are important. The theory, in practice, uses job values and expectations as highly related concepts.

It is the investment model that is different from the equity, expectancy, and the values contingency models. Instead of explaining satisfaction and commitment with meanings given to rewards, it combines rewards and costs that are associated with leaving the organization as the main determinants of staying or leaving. The costs derive from the magnitude of investments that the employee has put in the organization. Thus, although the concepts of pay, fringe benefits, and work group cohesion that form a part of the rewards characteristic of equity and expectancy theories are also the focus of the investment model, the investment model employs these in a different sense; they constitute investments that have cost (forfeiture
implications) should the employee leave. As a result, it is cumulative pay increases, fringe benefits such as pension schemes and health insurance seniority (promotional) chances and friendship with co-workers and management, rather than the equitable distribution of these that will tie the worker to a particular organization.

The most significant similarity between the four models presented above is that they all present arguments about the process by which job satisfaction and organizational commitment are produced without pointing to any specific variables. We can, however, argue that any conditions that these models view as rewards, costs or investments are potential variables that affect job satisfaction and organizational commitment. It is these that are considered independent variables for analysis by this study.

**Gender Differences in Satisfaction and Commitment**

None of the theoretical models reviewed above addresses the subject of gender differences in job satisfaction and organizational commitment in general or in their determinants. Also, out of the large number of empirical studies of employee job satisfaction and organizational commitment that have appeared in the literature, very few of them have focused on gender differences in the determinants of job satisfaction and organizational commitment. As pointed out earlier, the few studies that have focused on the subject have been conducted in the developed economies of the West and have mainly emphasized job satisfaction (see e.g. Agassi, 1982; Bokemeier and Lacy, 1986; Glenn, Taylor, and Weaver, 1977; Hodson, 1989; Lacy, Bokemeier and Shepard, 1983; Mason, 1995; Murray and Atkinson, 1981; Penley and Hawkins, 1980; Phelan, 1994; Quinn, Staines and McCullough, 1974) while totally ignoring employee commitment in the employing organization. In addition, such studies have not presented an exhaustive analysis (coverage) of the various factors that have been shown to affect job satisfaction and organizational commitment.
The extant data from recent investigations generally reveals that women have made considerable gains in the labor market (Blau and Ferber, 1985; Mason, 1995). In Kenya in particular, although women continue to be underrepresented in formal employment, the percentage of women entering the paid labor force has continued to grow since independence. By 1964, for example, African women comprised about 12.7% of Africans employed in the formal sector in Kenya (Ray, 1967). The representation of women in the paid labor force had increased slightly to 14.8% by 1972 (Republic of Kenya, 1972). By 1987 women in Kenya comprised about 22% of the wage labor force (Republic of Kenya, 1988).

Despite the inroads that women have made into the labor market, existing evidence reveals gender equality in the workplace continues to elude them. Women's jobs have, for example, been found to be characterized by substantially less earnings (Hodson, 1989; U.S. Bureau of the Census, 1987). In the United States, in particular, women are estimated to earn about 70 percent of what men earn in hourly wages (U.S. Bureau of the Census, 1987) net of human capital factors such as education, training, and experience (Duncan and Corcoran, 1984; England and McCleary, 1987; Madden, 1985; Triemann and Hartmann, 1981). In addition, women, on the average, have been found to hold jobs that are inferior in many other respects to those held by men (See e.g., Berch, 1982; Featherman and Hauser, 1976; Kreps, 1971). Women workers, for example, have been found to be less likely than their male counterparts to attain positions of authority in their jobs; to occupy jobs that are characterized by less autonomy, closer supervision, less occupational prestige, and more limited promotional opportunities (Hodson, 1989; Wolf and Flingstein, 1979); and to remain underrepresented in top-level management positions (Hymowitz and Schellhardt, 1986; Triemann and Hartmann, 1981). This situation for Kenyan women is not very different. Although the existence of seniority pay based systems have reduced pay differences especially between men and women in entry level positions and for those with equivalent qualifications (Anker and Hein, 1986; Hughes, 1986; Hughes and Mwiria, 1989; Ruigu, 1985), women still earn less than their male
counterparts. In manufacturing, for example, women's wages averaged 62% and 74% of what men earned for 1980 and 1990, respectively (United Nations, 1995). In addition, even with seniority based promotion systems, women are promoted less frequently than men are (Njenga, 1986) and are either underrepresented in or totally absent from high level managerial (or administrative) positions (Central Bureau of Statistics and UNICEF, 1984; Hughes and Mwiria, 1989).

Based on the differences enumerated above, one would expect women to be less satisfied with their jobs and also less committed to the employing firm. However, studies done in the industrialized countries have shown women to have a more favorable attitude towards their jobs than men (see e.g., Glenn et al., 1977; Hodson, 1989; Penley and Hawkins, 1980; Phelan, 1994; Quinnet al., 1974). Specifically, women have been found to be slightly more satisfied with their jobs than men. This has led to what has come to be referred to as the "paradox of the contented female worker" (see, e.g., Crosby, 1982; Phelan, 1994). This is the observation that despite experiencing inferior work conditions and labor market outcomes relative to men, women employees are neither any less satisfied with their jobs (see e.g, Bokemeier and Lacy, 1986; Crosby, Golding, and Resnick, 1983; Fry and Greenfeld, 1980; Hodson, 1989; Mannheim, 1983; Phelan and Phelan, 1983; Phelan, 1994) nor any less committed to their work organization (Mottaz, 1988) relative to male employees.

The "paradox of the contented female worker" has attracted attention from organizational and sociology of work researchers for some time now. Researchers have become more preoccupied than ever before with trying to identify and articulate its causes. Out of this research has emerged the following competing explanations/hypotheses.

**Differential Job Inputs Hypothesis**

The basis for the differential job inputs hypothesis is equity theory (Adams, 1965; Walster, Berscheid, and Walster, 1973) which argues that equity exists when an individual's
ratio of outcomes to inputs equals that of another person or group with whom one compares oneself. Based on this hypothesis, women are not any less satisfied with their jobs relative to men, even when inferior work conditions exist for them, because they have lower inputs relative to men. That is, women employees have lower education, lower job tenure and invest less effort in their jobs. Where women’s lower rewards (such as lower pay, less autonomy, and less promotional opportunities, to mention a few) are matched by proportionately lower levels of job inputs, the lower rewards would be perceived as equitable and job satisfaction and organizational commitment would not be affected negatively. Phelan (1994: 96), uses the term "an equitable inequality" to represent the above situation. A study by Phelan (1994), however, failed to support the differential job inputs hypothesis.

Family Responsibility Hypothesis

An alternative explanation traces the higher job satisfaction among women to the fact that women focus on their roles as homemakers rather than on their roles as workers (Veroff, Douvan and Kulka, 1981; Hodson, 1989). In such circumstances, the family constitutes an alternative source of satisfaction for women. Consequently, they will, evaluate work-related concerns in a softer light (Hodson, 1989).

Tests of the family responsibility hypothesis have, however, produced mixed results (see e.g., Crosby 1982; Hodson, 1989; Quinn et al., 1974). Hodson (1989) and Quinn et al. (1974), for example, found that working women with children under six years of age to evidence greater job dissatisfaction than those without young children. Crosby (1982), on the other hand, found single workers and married women without children to be less satisfied with their jobs relative to married women with children. She considered this to be an indication that the problems and joys associated with children shift attention away from work concerns and toward the family.
The Differential Expectation Hypothesis

Also termed the differential entitlement hypothesis (Phelan, 1994), this hypothesis argues that male and female employees bring different personal expectations to the workplace (Hodson, 1985; Glenn and Weaver, 1982). Women, it is argued, expect and consider fair a smaller job reward for the same job input relative to men. Female employees, for instance, are said to have lower pay expectations (see Major and Konar, 1984; Major, McFarlin and Gagnon, 1984) even when their job inputs are not lower than those of male employees. Because of this, male and female employees are likely to evaluate their jobs differently. Thus, the paradox of the contented female worker is a product of the fact that women expect and consider fair a lower return (rewards) for their inputs than do men (Phelan, 1994).

The “Own-gender Referents” Hypothesis

Also termed “differential comparison group hypothesis” (Hodson, 1989), this hypothesis states that men and women use different comparison groups in evaluating their jobs (Crosby, 1982; Glenn et al., 1977; Kessler and McRae, 1982). Specifically, the hypothesis presents women as comparing themselves to someone of the same sex rather than to male workers. Because other women are also underrewarded/experience poor work conditions, women are said to accept their situation as just. Hence, the slightly more favorable work attitude of women, relative to men.

Among the meaningful referents for female employees is the employment situation of the women's mother when they were growing up. Under these circumstances, women whose mothers were not gainfully employed outside of the home when they were growing up will utilize homemakers for a reference group. This may make paid employment outside the home appear relatively desirable regardless of its limitations (Glenn and Weaver, 1982; Hodson, 1989). On the other hand, women whose mothers worked outside the home when they were growing up are likely to utilize paid employees as reference groups. Work expectations are
likely to be higher for such women (Hodson, 1989). Other comparison groups for women could include sisters and female friends.

The basis for the own-gender referent hypothesis is the extensive gender segregation in the workplace (Baron and Bielby, 1985; Crosby, 1982; Hodson, 1989) that characterizes especially the industrialized economies. According to Crosby (1982), occupational sex segregation decreases the opportunity for women to compare their jobs with those of males and this contributes to their relative job satisfaction. This view is supported by Hodson (1989). According to Hodson, women in female type jobs "may not have full information, or at least daily reminders of, the extent to which they are underrewarded (1989:387)" and may not make the kind of comparison that would evoke dissatisfaction with their job. The existence of extreme gender segregation in the workplace makes own-gender referents both more available and more salient. However, based on Andrisani (1978), women in highly segregated jobs who are married and have working husbands may use them as reference points. Nevertheless, the existence of relatively high job satisfaction among such women leads to the conclusion that such comparison is typically not occurring (Hodson, 1989). For this study, occupational sex segregation should not be a major factor because I focus on employees in a similar occupation operating in a relatively integrated labor market.

The own-gender referent hypothesis is also supported by reference-group (Merton and Kitt, 1950) and status value (Berger et al., 1972) theories. These theories suggest that same gender comparisons should be viewed both as more appropriate and more relevant relative to cross-gender comparison. Consistent with the own-gender referent hypothesis, research by Zanna, Crosby, and Lowenstein (1987) found female employees who compared themselves with male co-workers to be less satisfied with their jobs than those who compared themselves with other women. Such findings may have implications for the Kenyan study. Considering that the study analyzes a relatively integrated field in terms of gender composition of the labor
force, it is possible that female agricultural technicians in Kenya will compare themselves to their male counterparts thereby making them to be less satisfied with their jobs.

The Differential Job Values Hypothesis

This approach to gender differences in job satisfaction has also been referred to as the structural or situational view (Mason, 1995). It argues that observed differences in job satisfaction are not due to gender. Rather, they are attributable to other variables that systematically co-vary with gender especially due to the prevalent segregation by gender of jobs in organizations (Gutek, 1988; Kanter, 1982). While men are thought to mainly occupy "enriched" opportunity structures that offer them the potential to experience satisfaction of agentic values, women are said to generally occupy "impoverished " opportunity structures which offer them communal outcomes (Mason, 1995). The differential opportunity structures experienced by male and female employees leads to the emergence of differences in the valued characteristics of the job for men and women. Men typically develop agentic values while for women it becomes more realistic to value communal outcomes such a pleasant peer relationship.

Differences in the valued characteristics of the job, it is argued, may produce different evaluations of jobs for men and women (Kanter, 1977). Where systematic differences exist in the job-related values of women and men, similar job outcomes are expected to result in different levels of job satisfaction (Mason, 1995). Conditions such as limited access to positions of authority and low salaries for women do not reduce their job satisfaction levels because female employees do not value these as much as do male employees. That is, women are just as satisfied as men because they do not allow these organizational extrinsic rewards to determine their satisfaction levels.

Results from tests of the extent to which men and women weighted differently different aspects of their work have been for the most part mixed. However, the bulk of these
studies (Bokemeier and Lacy, 1986; Brenner, Blazini, and Greenhaus, 1988; Bridges, 1989; Hodson, 1989; Jencks, Perman, and Rainwater, 1988; Lacey et al., 1983; Loscocco, 1990; Mason, 1995; Neil and Snizek, 1988; Northcott and Lowe, 1987; Phelan, 1994) show more support for gender similarities, rather than differences, in valued job characteristics and therefore fail to support the job values hypothesis. Only a few studies (see Beutell and Brenner, 1986; Crosby, 1982; Major and Konar, 1984; Mason, 1995; Murray and Atkinson, 1981) have found evidence, although relatively small, for the view that job characteristics differentially affected the work attitudes of men and women. These, for example, have found that while women weigh relations with co-workers more heavily, men weigh pay and advancement more heavily.

The Subjective Rewards Hypothesis

The subjective rewards hypothesis argues that the employee attitudes of job satisfaction and organizational commitment are determined more by subjective worker characteristics such as perceived autonomy, social support, variety, and job stress than by objective features such as salary and promotional opportunities. According to this hypothesis, because men and women differ less in these subjective factors (Catanzarite and Schwartz, 1989; Phelan, Bromet, Schwartz, Dew, and Curtis, 1993; Quinn and Shepard, 1973), their levels of job satisfaction will not differ much. Phelan (1994) found support for this hypothesis.

The Socialization Hypothesis

The socialization perspective to women's job satisfaction presents the view that women are socialized into values, attitudes and behaviors that are communal in nature (Bakan, 1966; Eagly, 1987). Such an orientation makes women more concerned with others, selfless, and gives them a desire to be at one with others. Jobs in which women can interact with
others in supportive and cooperative ways are, therefore, likely to be satisfying even when these (jobs) are minimally demanding and challenging (Mason, 1995). On the other hand, men are socialized into agentic values and behaviors characterized by self-assertion, self-expression, and the urge to master (Bakan, 1966; Eagly, 1987). Mason (1995), found no support for the socialization hypothesis as stated above.

A variation of this hypothesis presents women as socialized to be more passive than men (Glenn and Feldberg, 1977). This, it is argued, makes them to be less likely than men to express their discontent with work, regardless of the extent to which it is experienced. Phelan (1994), found no support for this hypothesis.

Other Explanation

An alternative to the above hypotheses could be found in the social psychological theory of cognitive dissonance. Virtually no study has relied on cognitive dissonance theory to explain job satisfaction and organization commitment. I argue that cognitive dissonance theory could be an additional social psychological theory in the study of satisfaction and commitment. Cognitive dissonance theory falls under the purview of social psychological theories often referred to as consistency theories (Fiske and Taylor, 1984). Generically stated, cognitive consistency refers to the notion that people's mental representations of what they believe, the attitudes they hold and subsequent behavior tend to exist in harmony with one another. Should disharmony arise within their cognitive set up, the individual is motivated to seek change in order to restore harmony (Eagly and Chaiken, 1993). Cognitive consistency theories view people as consistency seekers motivated by perceived discrepancies among their cognitions (Festinger, 1957; Heider, 1958). When inconsistency is perceived, a person is presumed to feel an uncomfortable negative drive state and, subsequently, to be motivated to reduce the inconsistency (Fiske and Taylor, 1984). Motivation and cognition are the two central concepts to consistency theories.
As proposed by Festinger (1957), cognitive dissonance theory is an account of how beliefs and behavior change attitude. It focuses on the effects of inconsistency among cognitions (Fiske and Taylor, 1984). Following the theory's argument, any knowledge that a person has about himself/herself or the environment constitutes a cognition or a cognitive element (Wicklund, 1978). Cognitive elements may be specific bits of information or general concepts and relations. They may be irrelevant (have nothing to do with each other), consonant (consistent) with each other or dissonant (inconsistent) with each other. Festinger (1957) proposed that cognitive elements develop or are basically determined by reality. He argued that, when two cognitions are in a dissonant state, the person with these cognitions experiences a state of arousal known as dissonance. This is an aversive emotional state that motivates the individual to attempt to reduce, if not, eliminate dissonance (Wicklund, 1978). The pressure to reduce dissonance varies with the magnitude of dissonance. That is, with small amounts of dissonance, there may be little or no motivational pressure to change and vice versa (Wicklund, 1978). The magnitude of dissonance experienced is a function of two factors: the relative proportion of consonant and dissonant elements and the importance of the elements involved (Wicklund, 1978).

Festinger (1957) outlined three major ways in which dissonance can be created: When making a choice between alternatives (decision making), during inducement of behavior that would normally be avoided (forced compliance), and upon exposure to information (Wicklund, 1978). In the first instance, dissonance is created when an alternative is chosen to the extent that the alternatives are about equal in attractiveness and/or involve different sets of consequences. In a choice situation, negative aspects of the chosen alternative and the positive aspects of the rejected alternative are dissonant with the cognition of choice. The resulting dissonance can be reduced by enhancing the consonant and minimizing the dissonant cognitions. It may, therefore, be expected that the perceived attractiveness of the chosen
alternative may increase whereas the perceived attractiveness of the rejected alternative may decrease (Wicklund, 1978).

Forced compliance, or the inducement of behavior that would normally be avoided, arouses dissonance in that, a person's prior (negative) evaluation of the behavior is dissonant with the knowledge that he/she will engage in it. The amount of dissonance experienced will depend on the amount of incentive offered to the person. Any incentive offered for performing the dissonant behavior is consonant (consistent) with engaging in the action. Therefore, someone who performs such a behavior with a large incentive will experience relatively little dissonance. However, dissonance is purported to increase with increasing incentive, but only up to the point at which compliance occurs, then increasing incentive produces decreasing dissonance. In addition, the predicted dissonance effects only occur when the person feels they had a choice about whether to comply or not (see Linder, Cooper, and Johnes, 1967).

With regard to exposure to information, dissonance is said to arise when a person is exposed to information that does not support his/her current beliefs. Dissonance theory argues that there is a predisposition, especially for persons already experiencing dissonance to avoid exposure to non supportive information (O'Keefe, 1990). Cognitive dissonance may also be produced in a person if the said person knows that another person, for example, a close friend holds an opinion contrary to his/her own. In such a situation the magnitude of dissonance due to such perceived lack of social support is a function of six factors: The extent to which objective, nonsocial cognitive elements consonant with the person's opinion exists; the number of people known to the person sharing the same opinion; the importance of the elements; the relevance of the person/group to the held opinion; the attractiveness of the disagreeing person/group; and the extent of the disagreement (O'Keefe, 1990).

Following Festinger (1957) dissonance can be reduced in several ways: dissonance cognitions can be eliminated or their importance reduced; consonant cognitions can be added;
or the importance of preexisting consonant cognitions can be increased. In the case of post
decision dissonance, for example, the decision may be revoked or the attractiveness of the
alternative may be diminished. Dissonance ensuing from forced compliance may be reduced
by changing one's private opinion to fit one's behavior or, alternately, by magnifying the
reward or punishment. To reduce dissonance arising from exposure to involuntary
information, the affected person may adopt various defense mechanisms that would prevent
the cognition from becoming firmly established as part of their cognitive system. Finally,
dissonance arising out of lack of social support may be reduced by changing one's own
opinion by influencing those who disagree to change their opinion or by not comparing oneself
to those who disagree (O'Keefe, 1990).

Though cognitive dissonance theory has produced a great deal of empirical research, it
has also had a fair amount of criticisms. One of its main criticisms is that it does not clearly
state the conditions under which dissonance occurs. According to Tedeschi, Schlenker, and
Bonomo (1971), it is a theory more suitable for postdiction rather than prediction. Moreover,
the mechanism by which the organism is aroused to action in order to reduce dissonance
remains unexplained by either Festinger or his followers (Tedeschi et al., 1971). Although
Tedeschi, et al. credit Festinger's assumption of a tension state as the motivational basis of
dissonance phenomena, they find the origins of such tension unclear (Wicklund, 1978). Other
scholars have found inadequacies in the definitions of terms such as elements, inconsistency,
relations, and relevance. These definitions have been considered rather broad and imprecise.
Not to mention the fact that there is also no specification of the conditions under which the
varied dissonance reduction methods will or will not be employed (Wicklund, 1978).

With regard to the applicability of cognitive dissonance theory to job satisfaction and
organizational commitment, I concur with Tedeschi et al. (1971) that it is indeed a theory
more suitable for postdiction rather than prediction. The most suitable place for this theory in
the study of satisfaction and commitment, it appears, would be in explaining why in certain
circumstances workers have been found to experience high levels of satisfaction and commitment even in the absence of the factors/conditions stipulated under exchange theories. The "paradox of the contended female worker" would be a good example. Dissonance theory could be utilized to explain why women have a more favorable attitude toward their jobs and employing firms despite experiencing inferior work conditions relative to men. Drawing from the theory, it can be argued that once employees enter a particular work relationship they are likely to modify their beliefs/expectations to match the realities they are confronted with. This could involve a rationalization of the situation which in turn will affect the behavioral outcome of being satisfied and committed. This is consistent with the argument presented by dissonance theory that people's mental representations of what they believe, the attitudes they hold and subsequent behavior tend to exist in harmony with one another. Should disharmony arise within their cognitive set up, the individual is motivated to seek change in order to restore harmony (Eagly and Chaiken, 1993).

With specific reference to female employees, the behavior that could be used to reduce dissonance would be turnover. However, the fact that women have been found to be neither less satisfied nor less committed relative to men most probably demonstrates that they do not experience significant levels of dissonance or, if they do, they adjust their attitudes thereby reducing the dissonance. This could, most likely, be explained by the fact that women are often faced with limited employment alternatives in the labor market. In tune with this, cognitive dissonance theory does argue that one only suffers dissonance where a choice is available. Hence, it should not be surprising that women are no less dissatisfied with their jobs and/or less committed to their organizations even when they experience poorer working conditions relative to men.
Hypotheses

Based on both the theoretical and empirical literature reviewed, the following hypotheses are derived:

• **H1.** Relative to male employees, female agricultural technicians perceive their jobs to have inferior rewards.

• **H2.** Relative to male employees, female agricultural technicians are neither less satisfied with their jobs nor less committed to their work organization.

In the following hypotheses H3a through H6b, the effects of gender and gender-reward interactions will also be examined jointly.

• **H3a.** The greater the intrinsic rewards (autonomy, participation in decision making, upward communication, task significance, distributive justice, and job variety), the higher the job satisfaction.

• **H3b.** The greater the intrinsic rewards (autonomy, participation in decision making, upward communication, task significance, distributive justice, and job variety), the higher the organizational commitment.

• **H4a.** The greater the organizational extrinsic rewards (pay, fringe benefits, job security, promotional opportunities, and career growth), the greater the job satisfaction.

• **H4b.** The greater the organizational extrinsic rewards (pay, fringe benefits, job security, promotional opportunities, and career growth), the greater the organizational commitment.

• **H5a.** The higher the (in)convenience extrinsic rewards (role overload, role ambiguity, and role conflict), the lower the job satisfaction.

• **H5b.** The higher the (in)convenience extrinsic rewards (role overload, role ambiguity, and role conflict), the lower the organizational commitment.

Rationale: (in)convenience extrinsic rewards are regarded as negative rewards.

• **H6a.** The greater the social extrinsic rewards (supervisory support, co-worker support and work group cohesion), the greater the job satisfaction.

• **H6b.** The greater the social extrinsic rewards (supervisory support, co-worker support and work group cohesion), the greater the organizational commitment.
H7a. Relative to others, the more the employee perceives over-reward, the more intense will be his/her job satisfaction.

H7b. Relative to others, the more the employee perceives over-reward, the more intense will be his/her commitment to the employing organization.

H8. The greater the absolute value of the perceived injustice, the greater the justice restoring behaviors. Specifically, the less the perceived injustice in the distribution of rewards the higher the worker satisfaction with the job and the greater the worker's organizational commitment.

H9. The more employee's experiences in the organization are congruent with his/her expectations, the greater the propensity that the employee would be satisfied with the job and committed to the employing organization.

H10. The greater the number of valued rewards offered by an organization to the employee, the higher the employees job satisfaction and organizational commitment.

H11. The higher the rewards received by the employee relative to what was expected, the higher the job satisfaction and commitment to the organization.

H12. Women with low job inputs (education and tenure) are no less satisfied with their jobs nor less committed to their work organization than men with high job inputs.

Rationale: Female employees are neither less satisfied with their jobs nor less committed to their work organization because they perceive their experiences of lower job rewards to be matched by proportionately lower levels of job inputs (i.e., lower education, lower job tenure, and less effort in the job).

H13. Female employees who are married and have young children are likely to be higher in job satisfaction and organizational commitment.

H14. For women employees, the lower the reward expectations relative to men, the more likely that they will display levels of job satisfaction and organizational commitment that are either equal to or higher than that of their male counterparts.

H15. The more female employees compare themselves to female rather than male coworkers, the greater the likelihood that they will not display significant differences in job satisfaction and organizational commitment relative to males even when they (females) perceive inferior job rewards.

H16a. Female employees value intrinsic rewards (i.e., autonomy, participation in decision making, upward communication, task significance, distributive justice, and job variety) less than their male counterparts do.
• **H16b.** Female employees value organizational extrinsic rewards (i.e., pay, fringe benefits, promotional opportunity, job security, and career growth) less than their male counterparts do.

• **H16c.** Female employees value social extrinsic rewards (i.e., friendly supervisors and co-workers, and a cohesive work group) more than their male counterparts do.

Rationale: Based on the differential values hypothesis, men and women value different attributes of their jobs. Such differential job values will lead to equal levels in job satisfaction and organizational commitment for male and female employees.

**H17.** For women, relative to men, the lack of alternatives to their current employment lowers dissonance experiences and thus increases job satisfaction and organizational commitment.

As stated earlier, the major purpose of reviewing the theoretical literature presented above was to establish those important rewards that are the determinants of job satisfaction and organizational commitment, and also to clarify the theoretical origins of these rewards rather than to test the theories themselves. In view of this, coupled with the fact that this study utilizes secondary data, only those bulleted hypotheses will be tested by the study. Specifically, I will test hypotheses numbers H1 through H6 b and H16a through H16c. Based on hypotheses testing, path models will be constructed for each gender in the results chapter.
CHAPTER III
DELINEATION OF STUDY VARIABLES

The main purpose of this chapter is to describe in detail the exogenous and endogenous variables in this study. The specific variables in each of these two categories are identified and discussed. The exogenous variables are classified into two major groups namely, rewards and nonreward variables. The rewards, both intrinsic and extrinsic, blend a variety of job characteristics that are thought to differentially affect the job satisfaction and organizational commitment of male and female employees. These will constitute the study's substantive variables. The nonreward variables, on the other hand, are those other variables that have been consistently featured in the empirical literature as additional major determinants of satisfaction and commitment. Because these variables have been found to affect satisfaction and commitment in previous studies, they must be controlled for by this study to properly specify the equations estimated in the study and to arrive at unbiased estimates of the substantive variables of interest. The hypothesized effects of both the rewards and nonreward variables that will be found to be significant in the results chapter will be used to construct path models for each gender group. In addition, two variables -- job satisfaction and organizational commitment -- are featured as endogenous (dependent) variables. The exogenous variables will be regressed on job satisfaction and, jointly with job satisfaction, on organizational commitment. A descriptive discussion of all exogenous and endogenous variables is presented below. Table 1 summarizes the definitions of the variables.

Exogenous Variables

As indicated above, the exogenous variables in this study include both reward and nonreward factors that have been shown to affect both satisfaction and organizational commitment. The rewards are associated with the theoretical literature just reviewed. This
Table 1. Definitions of Study Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endogenous Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Organizational commitment</td>
<td>is the degree to which an employee is emotionally attached to, identifies with and is involved in the organization (Allen and Meyer, 1990).</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>is the degree to which an employee likes his/her job (Price and Mueller, 1986a).</td>
</tr>
<tr>
<td><strong>Exogenous Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Intrinsic Rewards</td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>is the degree to which employees are afforded substantial freedom, independence, and discretion by their job in scheduling the work and in determining the procedures to be used in carrying out the job (Hackman and Oldham, 1975).</td>
</tr>
<tr>
<td>Participation in decision making</td>
<td>is the extent of the employee involvement in the adoption of major policy decisions that affect the organization and its employees (Mulinge, 1994).</td>
</tr>
<tr>
<td>Upward communication</td>
<td>is the degree to which an employee is able to transmit information up the organization's hierarchy (Mulinge, 1994).</td>
</tr>
<tr>
<td>Task significance</td>
<td>is the degree to which an individual's role contributes significantly to the overall organizational work process (Hackman and Oldham, 1980).</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>is the degree to which rewards and punishments are related to performance inputs (Homans, 1961).</td>
</tr>
<tr>
<td>Job variety</td>
<td>is the degree to which an employee's job performance is not repetitive (Hackman and Oldham, 1975).</td>
</tr>
<tr>
<td>Organizational Extrinsic Rewards</td>
<td></td>
</tr>
<tr>
<td>Pay</td>
<td>is the (monthly) wages and salaries which employees receive for their services to the organization.</td>
</tr>
<tr>
<td>Fringe benefits</td>
<td>are the discretionary nonmonetary and monetary payments other than direct wages or salaries that workers get from their jobs (Ivancevich et al., 1977).</td>
</tr>
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</table>
Table 1. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>Promotional opportunity</td>
<td>is the chance for vertical occupational mobility within the organizational hierarchy (Price and Mueller, 1986a).</td>
</tr>
<tr>
<td>Job security</td>
<td>is the degree to which an employee is guaranteed his/her job (Leonard, 1977).</td>
</tr>
<tr>
<td>Career growth</td>
<td>is the extent to which an organization provides the employee with the opportunity to increase work-related skills and knowledge (Mangelsdorff, 1989).</td>
</tr>
</tbody>
</table>

(In)convenience Extrinsic Rewards

| Role overload             | the degree to which role expectations are in excess of available time and resources (Miles and Perrault, 1976).                                |
| Role ambiguity            | is the degree to which there is a discrepancy between the amount of information a person receives and the amount necessary to perform the role adequately (Kahn, Wolfe, and Schoek, 1964). |
| Role conflict             | is the degree to which incompatible demands are made upon and individual by two or more persons whose jobs are functionally interdependent with that of the individual (Kahn et al., 1964). |

Social Extrinsic Rewards

| Supervisory support       | is the degree to which supervisors are, friendly, helpful, and supportive in job related matters (Michaels and Spector, 1982; Mottaz, 1985).         |
| Co-worker support         | is the degree to which co-workers are friendly, helpful, and supportive in job related matters (Mottaz, 1985).                                |
| Work group cohesion       | is the degree to which an employee has close friends in the immediate work groups (Price and Mueller, 1986a).                                    |

Nonreward Variables

<p>| Firm-specific training    | is the degree to which the occupational socialization of an employee equips him/her with the ability to increase only the productivity of the firm providing it (Becker, 1962). |
| Work motivation           | is the degree to which employees are in general willing to work (Robinson, et al., 1969).                                                  |</p>
<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Positive affectivity</td>
<td>is the degree to which one feels enthusiastic across time and situation (Watson, Pennebaker, and Folger, 1987).</td>
</tr>
<tr>
<td>Negative affectivity</td>
<td>is the degree to which one feels dissatisfaction across time and situation (Watson and Clark, 1984).</td>
</tr>
<tr>
<td>Financial security</td>
<td>is the degree to which the employee has access to income(s) other than that derived from the job that can adequately finance his/her needs plus those of his/her dependents</td>
</tr>
<tr>
<td>External opportunities</td>
<td>is the likelihood of obtaining jobs in the labor market which are as good as or better than the job currently filled by an employee (Price and Mueller, 1986b).</td>
</tr>
<tr>
<td>Kinship responsibility</td>
<td>is the extent of obligations to nearby individuals with whom one is related (Price and Mueller, 1986a) or to relatives in general to whom one has financial responsibility over.</td>
</tr>
<tr>
<td>Education</td>
<td>is the highest level of formal schooling or training an individual has had.</td>
</tr>
<tr>
<td>Gender</td>
<td>refers to the sex of the individual.</td>
</tr>
<tr>
<td>Tenure</td>
<td>refers to the individual's length of service in the organization.</td>
</tr>
<tr>
<td>Work Sector</td>
<td>represents the type of organization one works for: public or parastatal.</td>
</tr>
</tbody>
</table>

literature, however, only argues that rewards affect satisfaction and commitment in terms of the meaning the employee attaches to them, -- e.g., the degree to which they are fair (see equity theory), or the degree to which they are expected (see expectancy theory), or the degree to which they are valued (see values contingency approach) -- without identifying the specific rewards which are important. To derive these, therefore, I must turn to the bulk of the empirical literature that examines the direct relationship between the employee's perceived level of the reward and job satisfaction and commitment. The rewards are grouped into
intrinsic and extrinsic categories. As noted earlier, this (comparative) study of male and female agricultural technicians in Kenya utilizes secondary data initially collected by Munyae Mulinge. The conceptual and operational definitions of constructs are thus drawn from Mulinge’s (1994) study.

Intrinsic Rewards

As stated earlier (see literature review) intrinsic rewards are a product of work in and of itself (Greenberg, 1980; Herzberg, 1966; Kalleberg, 1977). They fulfill human goals related to the individual workers' internal sense of fulfillment. In this study the following job characteristics that are inherent in performing work will be considered intrinsic rewards: autonomy, participation in decision making, upward communication, task significance, distributive justice, and job variety. These are discussed below with supportive empirical evidence presented for each.

Autonomy, as noted by Mulinge (1994), is sometimes termed control (see Halaby, 1986; Halaby and Weakliem, 1989; Lincoln and Kalleberg, 1985, 1990). It refers to the degree to which employees are offered the freedom, independence and discretion to make decisions pertaining to their work such as scheduling and determining the procedure to be used in executing the task (Hackman and Oldham, 1975). It represents the choice and discretion workers exercise over the substantive and procedural aspects of their job. The highest degree of autonomy exists when the employee has total freedom to make such decisions while the lowest degree exists when the individual has to depend on others in the immediate work environment for such decisions. The importance of this variable is best demonstrated by Kohn and Schooler who observe that "the central fact of occupational life today...is the opportunity to use initiative, thought and independent judgement in one's work - to direct one's own occupational activities" (1973:116). Autonomy has been empirically supported to have a positive effect on affective orientations (DeCotiis and Summers, 1987;

*Participation in decision making* refers to the degree of the employee's involvement in the adoption of major policy decisions that affect the organization and its employees (Mulinge, 1994). Employees, for example, are involved in choosing between alternatives (Gortner, 1977) in new production or service delivery techniques, promotional procedures, staff promotions, terms of service for workers, and the hiring and firing of core personnel. Participation in decision making by the employee gives him/her more control over processes and outcomes in the workplace (Ganster and Fusilier, 1989; Lincoln and Kalleberg, 1990). Although employee participation in decision making is the least studied organizational process (DeCotiis and Summers, 1987), this variable has been positively associated with job satisfaction (Caplan, Cobb, French, Harrison, and Pinneau, 1975; Locke and Schweiger, 1979; Schweiger and Leana, 1986; Spector, 1987) and organizational commitment (Alvi and Ahmed, 1987; DeCotiis and Summers, 1987; Stumpf and Hartman, 1984). Leonard (1977:118) found that allowing lower level extension staff in the Ministry of Agriculture in Kenya to participate in decisions about work was likely to increase commitment. In this study participation in decision making is expected to increase the job satisfaction and organizational commitment of both male and female agricultural technicians.

*Upward communication* is the degree to which employees can transmit with ease their ideas, feelings, and feedback from their jobs to higher level administrators and/or managers (Mulinge, 1994). Such a variable is stressed in the study of magnate hospitals (American
Academy of Nursing, 1983). As Mulinge (1994) argues, it is important to incorporate this variable in this study because the study focuses on bureaucratically organized work organizations and also because the sample studied is composed of employees operating within a hierarchy of job settings ranging from sublocational to national (headquarter) levels. A communication process which keeps the employee informed with respect to valued aspects of the organization has been associated with felt responsibility and role involvement and, therefore, commitment (Salancik, 1977b). This has been supported by DeCotiis and Summers (1987) who found a positive correlation between communication and commitment. In addition, Mulinge (1994), found upward communication to have a positive effect on job satisfaction. This study hypothesizes upward communication to positively impact on job satisfaction and organizational commitment of both male and female agricultural technicians.

Task significance is the degree to which an individual's role contributes significantly to the overall organizational process (Hackman and Oldham 1980; Mulinge, 1994). Previous research has shown this variable to be strongly related to work attitudes (Hackman and Lawler, 1971; Hackman and Oldham, 1975, 1980; Kirsch and Lengermann, 1971; Sims, Szilagyi, and Keller, 1976). A few studies have demonstrated a positive relationship between task significance and the affective orientations of job satisfaction (Mottaz, 1981, 1985, 1988; Hackman and Oldham, 1980; Mueller and Price, 1990; Mulinge, 1994) and organizational commitment (Bateman and Strasser, 1984; DeCotiis and Summers, 1987; Mulinge, 1994; Salancik 1977a). Salancik (1977a), for example, found employees who described themselves as feeling personally important to the organization to be highly committed. In this study I hypothesize that the level of task significance in a job will positively impact on the job satisfaction and organizational commitment of male and female employees.

Distributive justice is the degree to which rewards, and punishments are related to performance inputs (Homans, 1961; Mulinge, 1994). Rewards and punishments (outcomes) refer to the fairness of the treatment of the employee compared to others as indicated by pay,
fringe benefits, and promotion, to mention a few. Performance inputs, on the other hand, refers to factors such as effort, training and experience which employees contribute to the job. Based on Adams (1963), employees compare their inputs and outcomes to those of a reference group to establish the fairness of the system. High distributive justice exists when an employee, comparing his/her inputs and outcomes with those of other employees, perceives them to be fair. Strong empirical evidence exists linking high levels of distributive justice to increased job satisfaction (Agho, 1989; Bluedorn, 1982; Curry, Wakefield, Price, Mueller, and McCloskey, 1985; Curry, Wakefield, Price, and Mueller, 1986; Martin, 1979; Price and Bluedorn, 1980; Price and Mueller, 1986a; Williams and Hazer, 1986; Vroom, 1964) and organizational commitment (DeCotiis and Summers, 1987). In this study I hypothesize that high levels of distributive justice will increase job satisfaction and organizational commitment among male and female agricultural technicians in Kenya.

*Job variety* is defined after Hackman and Oldham (1975) and Perrow (1967) as the degree to which job tasks are not repetitive. A job characterized by task high variety is one which allows the employees to use their skills, experience or knowledge. The opposite would be true of a job whose tasks are highly repetitive (routinized). Empirically, routinization has been demonstrated to negatively impact on affective orientations (Eicher and Thompson, 1986; Hackman and Lawler, 1971; Hackman, et. al., 1978; Katz and Kahn, 1978; Kohn and Schooler, 1973; Locke, 1976; Mulinge, 1994; Porter and Steers, 1973). I hypothesize a positive impact of job variety on both job satisfaction and organizational commitment among male and female agricultural technicians in Kenya.

**Extrinsic Rewards**

Unlike intrinsic rewards, extrinsic rewards are not directly received through performing the work itself. Rather, they are by-products of the work (Greenberg, 1980; Kalleberg, 1977) provided by employers with the objective to motivate employees to perform...
their tasks and to maintain membership in the organization. Three categories of extrinsic rewards are analyzed in this study. These are organizational extrinsic rewards, (in)convenience extrinsic rewards, and social extrinsic rewards. While organizational extrinsic rewards represent work outcomes that traditionally have been referred to as instrumental rewards (Kalleberg, 1977), (in)convenience extrinsic rewards are organizational constraints that undermine the employee's ability to perform his/her tasks efficiently. Social extrinsic rewards, on the other hand, are workplace conditions that satisfy the social needs of the employee (Kalleberg, 1977).

Organizational Extrinsic Rewards

The following variables are considered to be organizational extrinsic rewards: pay, fringe benefits, promotional opportunity, job security, and career growth. A detailed discussion of all five variables is presented below.

Pay has been defined as the monetary rewards received by employees for the services they render including wages, salaries and fringe benefits (Kalleberg (1977). However, for the purpose of this study the definition employed by Mulinge (1994) will be adopted. He defined pay as the wages and salaries received by employees for services rendered. Consistent with Mulinge, I prefer to define pay in a manner that excludes fringe benefits (which could be both monetary and nonmonetary) so that I can treat fringe benefits as a distinctive variable from pay. Studies by Bluedorn (1982), Lawler (1973), and Lawler and Hall (1970) have demonstrated a positive relationship between pay and affective orientations such as satisfaction and commitment. For the developing countries existing scattered evidence shows that high pay increases job satisfaction (Ozgediz, 1986; Harrison, R.K. and D.W. Kidd cited in Leonard, 1977:111) and thus helps retain employees and reduces absenteeism (see Ozgediz, 1986). Low pay, on the other hand lowers morale and increases loss of able personnel to more rewarding jobs (Dodge, 1977:278). This probably explains why both Dodge (1977)
and La-Anyane (1985) stress the significance of a well paid workforce in the success of an (agricultural) extension program.

Fringe benefits refers to the discretionary payments other than direct wages or salaries that workers get from their jobs (Ivancevich et al., 1977; Mulinge, 1994). Examples would be paid vacation time, paid maternity leave (for women), paid lunches, life insurance premiums, health insurance coverage, pension programs, company car and driver, housing, medical care and education for the employees and/or for the employees' children. As pointed out earlier, this study differentiates fringe benefits from pay because in developing countries such as Kenya such benefits include nonpecuniary components that are offered especially to senior personnel to keep them motivated and therefore committed to their employing firm (Mulinge, 1994; Ozgediz, 1986; Warwick, 1978; Gray, 1979). In this study I am hypothesizing a positive relationship between fringe benefits and the job satisfaction and organizational commitment of male and female agricultural technicians.

Promotional opportunity has been defined as the degree of potential vertical mobility within the organization (Price and Mueller, 1986a). Strong empirical evidence exists showing that this construct has a direct positive effect on job satisfaction (Curry et al., 1985; Iverson, 1987; Lincoln and Kalleberg, 1990; Mulinge, 1994; Price and Mueller, 1981, 1986a; Smith et al., 1969; Thompson and Terpening, 1983). R. K. Harrison, and D. W. Kidd (cited in Leonard, 1977: 111) also identified (pay and) promotions to be dominant issues in the degree of job satisfaction of Nigerian extension workers.

Job security has been defined by Leonard (1977) as the extent to which an employee is guaranteed his/her job as long as he/she is conscientious and performs at a minimal level of competence. He argues that the more predictable the vital aspects of a job are, the more satisfying it is likely to be. Leonard (1977) found out that the "desirability of employment with the Ministry of Agriculture" for junior extension workers in Kenya was that the job was secure; that is, the "employees enjoyed the remarkable advantage of being certain not to be
"dismissed" as long as they performed at a minimal level of competence. A study in Ghana (Africa) also found that 74% of the civil servants liked government employment because of job security (Price, 1974). Such findings have also been supported by Gupta (1982) who studied industrial workers in India and found security of tenure to be a major factor in worker commitment to the job. In addition, Mulinge (1994), found job security to have a significant positive effect on job satisfaction among technically trained agricultural employees in Kenya. In this study, job security is hypothesized to increase job satisfaction and organizational commitment among male and female employees in Kenya.

_Career growth_ has been defined by Mangelsdorff (1989) as the opportunity afforded by the organization for the employee to increase work-related skills and knowledge. This variable has hardly been emphasized in the study of job satisfaction and commitment - - only Mangelsdorff (1989) examines it in his study of psychologists in the U.S. Army. More recently, Mulinge (1994) found the variable to have a positive effect on job satisfaction. This study hypothesizes that career growth opportunities will increase job satisfaction and organizational commitment for male and female agricultural technicians in Kenya.

**Convenience Extrinsic Rewards**

Convenience extrinsic rewards include those job characteristics that provide what Kalleberg (1977 :128) refers to as "creative comfort, i.e., a "soft" job" such as convenient travel to and from work, good hours, freedom from ambiguous roles, pleasant surroundings, freedom from role overload (enough time to complete tasks), and freedom from conflicting job demands. These are work conditions that have also been referred to as "stressors" (see, for example, Ganster, et. al., 1986; Hammel and Bracken, 1986; Mulinge, 1994). Since convenience extrinsic rewards capture the cost end of the reward continuum, they will be referred to in this research as (in)convenience extrinsic rewards. The presence of role overload, role ambiguity, and role conflict in the work environment brings pressure to bear on
the employee thereby undermining his/her abilities to cope with the job requirements (House, 1980, 1981). Although these variables do not refer "ultimately" to what workers want from their jobs, they are important because workers need to perform adequately in their jobs to obtain other rewards such as pay, benefits, advancement etc. A successful role performance can only occur if the employee is free from the organizational constraints listed above. In this study the following variables are considered to be (in)convenience extrinsic rewards: role overload, role ambiguity, and role conflict. These are discussed in detail below.

*Role overload* has been defined the degree to which role expectations are in excess of available time and resources (Miles and Perrault, 1976; Mulinge, 1994). The effect of this variable on affective orientations has been demonstrated (Bateman, 1980; Beehr, Walsh and Taber, 1976; Buck, 1972; Burke, 1970, 1976; Curry et al., 1986; Kahn and French, 1970; Leonard 1977; Price and Mueller, 1986a; Sales, 1970). Based on Price and Mueller (1986a), an acceptable workload, as opposed to too little or too much work, will increase both job satisfaction and commitment.

*Role ambiguity* has been defined by Kahn, Wolfe, and Schoek (1964) as the degree to which there is a discrepancy between the amount of information a person receives and the amount necessary to perform the role adequately. A worker experiences role ambiguity during those times when certain aspects of a work role are not clearly defined. In these instances, the worker is uncertain about what is expected. The negative effect of role ambiguity on affective orientations has been demonstrated empirically (see e.g., Brooke, 1986; DeCotiis and Summers, 1987; Greene and Organ, 1973; Hammer and Tosi, 1974; Hrebiniai and Alutto, 1972; Mulinge, 1994; Price and Mueller, 1986a; Schuler, 1975; Stevens, Beyer and Trice, 1978 ). As a source of role confusion, role ambiguity may, for example, decrease commitment by reducing or clouding the perceived linkage between the member's role and the attainment of organizational goals (DeCotiis and Summers, 1987).

*Role conflict* has been defined as the degree to which incompatible demands are made
upon an individual by two or more persons whose jobs are functionally interdependent with that of the individual (Kahn et al., 1964). It may occur when two or more sets of role expectations occur simultaneously such that compliance with one makes compliance with the other more difficult or impossible (Kahn and French, 1970). Existing evidence suggests that role conflict negatively impacts on job satisfaction and commitment (see House and Rizzo, 1972; Kahn et al., 1964; Mulinge, 1994; Rizzo et al., 1970).

Social Extrinsic Rewards

Three variables are incorporated in this study as social extrinsic rewards. These are supervisory support, co-worker support, and work group cohesion. A discussion of all three is undertaken below.

Supervisory support has been defined as the degree to which supervisors are friendly, helpful and supportive to their subordinates (Mottaz, 1985; Michaels and Spector, 1982). It could be viewed through two dimensions: a human relations dimension and a dimension of initiating structure. The human relations dimension is characterized by trust, respect, friendship, and a considerable concern for subordinates' needs on the part of supervisors. The dimension of initiating structure, on the other hand, is defined in terms of the supervisor's task oriented behavior, where both the roles of the supervisor and the subordinate are clearly defined (Fleishman and Harris, 1962). Here supervisors organize and assign to subordinates specific tasks and procedures with the objective of achieving production and organizational goals. There is considerable empirical support for the direct positive effect of supervisory support on job satisfaction (Burke and Wilcox, 1969; Dodge, 1977; Downey, Sheridan, and Slocum, 1975; Gruenfeld and Kassum, 1973; Jago, 1982; Martin and Hunt, 1980; Michaels and Spector, 1982; Mottaz, 1985, 1988; Neumann, 1973; Perry, 1978; Szilagyi and Sims, 1974; Williams and Hazer, 1986). In addition, supervisory support has been found to increase employee commitment (Cotton and Tuttle, 1986; DeCotiis and Summers, 1987; Lee,
1971; Martin and Hunt, 1980; Michaels and Spector, 1982; Mobley, 1982; Mulinge, 1994; Williams and Hazer, 1986). In this study I hypothesize that increases in supervisory support increase job satisfaction and organizational commitment.

Co-worker support was defined by Mottaz (1985) as the degree to which co-workers are friendly, helpful and supportive. In a discussion about co-worker support, Price (1975) distinguishes between primary and secondary relationships. He terms primary those relationships that are based on ascribed criteria and are diffuse and emotionally involved. A family relationship is a good illustration of a primary relationship. Secondary relationships, on the other hand, are relationships based on achieved criteria, are specific and emotionally neutral. A lawyer-client relationship would be a good example of a secondary relationship. The existing evidence shows that co-worker support is positively related to job satisfaction (House, 1981; LaRocco, House, and French, 1980; Iverson and Price, 1990; Martin and Hunt, 1980; Mulinge, 1994; Price and Mueller, 1986a). In addition, research has shown that the more the social involvement an individual has with other members of an organization, the higher the individual's commitment to the organization (Alvi and Ahmed, 1987; Buchanan, 1974; DeCotiis and Summers, 1987; Lodahl, 1964).

Work group cohesion has been defined by Price and Mueller (1986b) as the extent to which employees of an organization have close friends in the immediate work units. This type of relationship may manifest itself through employee joint participation in social activities inside and outside of the work environment. Group cohesiveness is generally associated with a high degree of interaction and felt responsibility among members of the group (Cartwright, 1968) which, in turn, lead to greater social involvement in the organization. Theoretically, social involvement has been linked to commitment, (Brooke, Russell and Price 1988; Kanter, 1986; Salancik, 1977b). According to Mowday et al., (1982) the social bonds arising from group cohesiveness constitute an important environmental influence on organizational commitment. Leaving the organization would mean leaving significant others.
involved individuals are therefore likely to choose to remain in the organization. The literature shows work group cohesion to have positive effects on affective orientations (DeCotiis and Summers, 1987; Lietter and Maslach, 1988; Lincoln and Kalleberg, 1990; Martin and Hunt, 1980; Morris and Sherman, 1981; Mueller and Price, 1990; Price and Mueller, 1986a). Lincoln and Kalleberg (1990), for example, emphasize the importance of work group cohesion in employee job satisfaction and organizational commitment.

Nonreward Variables

The nonreward variables to be analyzed in this study will include employee characteristics, environmental constraints, and demographic variables. These have also been documented by the empirical literature to be determinants of job satisfaction and organizational commitment. While employee characteristics represent employee qualities (such as training) and relatively stable employee value orientations (such as work motivation), environmental constraints are those nonwork factors that can affect the worker's satisfaction with the job and commitment to the organization.

Employee Characteristics

Five employee characteristics -- firm-specific training, work motivation, positive affectivity, negative affectivity, and financial security will be featured in this study as control variables. These are characteristics of employees that are expected to vary across individuals even when rewards are the same. The variable firm-specific training comes from both the investment theory (which argues that employees with non-portable skills will incur costs if they leave the organization) and the human capital tradition in economics which views non-portable skills as limiting the employee's chance for alternative employment because the costs of leaving for such an employee outweigh the benefits. While work motivation, positive affectivity, and negative affectivity are rather stable personality traits that are expected to
impact on satisfaction and commitment, financial security may be considered to be a stable fiscal characteristic of the employee. Specifically, positive and negative affectivity are viewed as distinctive (Agho, 1989; Cyphert, 1990; Watson, Clark, and Tellegen, 1984) stable personality concepts representing the affirmative and nonaffirmative moods of the individual, respectively. They are considered to be dispositions that may inflate considerably the relationship between job characteristics and job satisfaction (Watson and Clark 1984). The literature shows that positive and negative affectivity may act as nuisance variables in job attitude research (see Brief, Burke, Atieh, Robinson and Webster, 1988; Staw and Ross, 1985; Staw, Bell and Clausen, 1986). Brief et al., (1988) recommend that the two (positive and negative affectivity) must be controlled in order to evaluate the true effects of other stress-related variables on job satisfaction. All five employee characteristics are considered to be important explanatory factors of satisfaction and commitment. These, save financial security, are well documented in the empirical literature. A detailed discussion of all variables listed as employee characteristics is undertaken below starting with firm-specific training.

**Firm-specific training** has been defined as the degree to which the occupational socialization of an employee equips him/her with the ability to increase only the productivity of the firm providing it (Becker, 1962). According to Becker, completely specific training is, "training that has no effect on the productivity of employees that would be useful in other firms (1962:17)." This kind of training is basically acquired through on-the-job training. It can take the form of formal and informal training programs in a job situation as well as training from experience. As Becker (1962) notes, not all on-the-job-training produces firm specific skills. Some produce skills that increase productivity by at least as much in other firms as in the firms providing it. By providing the employee with non-portable skills, firm-specific training limits the employee's chance for alternative employment. For such an employee, the costs of leaving the firm outweigh the benefits. The opposite of firm-specific training is general training. This is training that equips the employee with transferable skills...
(skills that can be useful in many firms) (Becker, 1962). Such skills can be acquired through a formal educational and/or training institution or provided by a particular firm. Employees with general training, unlike those with firm-specific training, are likely to have lower commitment to the organization because their skills are transferrable to other work settings. Mulinge (1994) found firm-specific training to increase job satisfaction among agricultural technicians in Kenya. In this study, firm-specific training is hypothesized to positively impact on job satisfaction and organizational commitment.

*Work motivation* has been defined as the degree to which employees are willing to work (Robinson, Athanasiou and Head, 1969). Individuals who are willing to work hard are said to be highly motivated while those without such a willingness are said to be lowly motivated (Price and Mueller, 1986b). Work motivation has also been termed work values (or the employee beliefs/orientations about work in general). According to Mowday et al. (1982), new employees are likely to enter an organization with differing work related values such as a belief in the protestant ethic (see Blood, 1969) and the belief in work as a central life interest (see Dubin, Champoux, and Porter, 1975; Dubin and Goldman; 1972). These values are molded through the individual's upbringing and early socialization. The holder of the Protestant work ethic, for example, is said to be committed to the values of hard work, to the work itself as an objective, and to the work organization as the inevitable structure within which those internalized values can be satisfied (Weber, 1947). Existing empirical evidence suggests that employees characterized by a strong protestant ethic or who see work as central to their self concept are likely to become more committed to the organization (Dubin et al., 1975; Hall and Schneider, 1972; Mathieu and Zajac, 1990; Mulinge, 1994; Rabinowitz and Hall, 1977). Blood (1969) found Protestant work ethic to have a significant positive relationship with the employee's general satisfaction with the job. In turnover studies work motivation has been found to reduce turnover by positively impacting on job satisfaction and commitment (Mueller and Price, 1990).
Positive affectivity has been defined as the degree to which one feels enthusiastic across time and situation (Watson, Pennebaker, and Folger, 1987). Whereas high positive affect is characterized by traits such as being interested, friendly, and joyful, low positive affect is associated with such characteristics as being fatigued, sad, and disengaged from positive experiences. Based on the existing literature, individuals who are high on positive affectivity are more likely to accentuate the positive aspects of themselves and their environment and are less likely to report stress and physical complaints even in the presence of any stressors or health problem (Watson and Clark, 1984; Watson et al., 1987; Watson, Clark and Tellegen, 1984; Watson and Tellegen, 1985). There is strong and consistent support in the literature for the effect of positive affectivity on job satisfaction (Agho, 1989; Cyphert, 1990; George, 1989).

Negative affectivity has been defined by Watson and Clark (1984) as the degree to which one feels dissatisfaction across time and situation. While high negative affectivity may be characterized by factors such as being afraid, angry, and ashamed, low negative affectivity may be identified with being calm, and at ease in non-unpleasant states of disengagement. According to the literature, individuals who are high on negative affectivity are more likely to accentuate the negative aspects of themselves and their environment and are more likely to report stress and physical complaints even in the absence of any stressors or health problem (Watson and Clark, 1984; Watson et al., 1987; Watson, Clark and Tellegen, 1984; Watson and Tellegen, 1985). There exists strong and consistent support in the literature for the effect of negative affectivity on job satisfaction (Agho, 1989; Cyphert, 1990; George, 1989; Mulinge, 1994).

Financial security was defined by Mulinge (1994), following Chemiss (1989), as the degree to which the employee has access to income(s) other than that derived from his/her job that can adequately finance his/her needs plus those of his/her dependents. These other sources of income could be in the form of income earned by a spouse from a job, or money
earned through business activities, and/or consultancy work by the employee or a spouse. In a study about career stability in public service professionals, Cherniss employed the construct "financial independence," defined as 'the extent to which the individual was able to take financial risks' (Cherniss, 1989: 406), and found it to be the most important factor in employee decision to leave public service work. In my case, I argue that financial security lowers the value an employee attaches on the material benefits from his/her job and by so doing increases his/her job satisfaction. On the other hand, as demonstrated by Mulinge (1994), having sufficient alternative sources of financial support could lower the employee commitment to the work organization.

**Environmental Constraints**

Environmental constraints are also expected to affect an employee's job satisfaction and organizational commitment. In this study, two environmental variables -- external job opportunities and kinship responsibility -- are analyzed. The first captures economic supply/demand conditions, while the second is important in measuring the influence of the employee's family life on his/her work behavior (Blegan, Mueller and Price, 1988; Mueller and Price, 1990). The variable external opportunities derives from both the investment and economic theories. It constitutes what investment theory (Rusbult and Farrell, 1983) terms alternative value (or the alternative to the current job) and what economic theory refers to as other matches to the employee job skills that could generate better returns relative to the current jobs. Based on economic theory, the variable external opportunities interacts with pay to affect satisfaction and commitment. That is, the higher the pay offered by an alternative job relative to the employee's current job, the more the effects of the alternative job opportunity on the employee's job satisfaction and organizational commitment. Kinship responsibility, on the other hand captures what economic theory views as costs associated with leaving one job for another.
External opportunities has been defined by Price and Mueller (1986b) as the availability of alternative jobs within the organizational environment. External opportunities are said to be high when a large number of alternative jobs exist for which an employee is qualified. Increased opportunities for alternative employment have been found to negatively affect job satisfaction and organizational commitment (Hulin, Roznowski, and Hachiya, 1985; Mulinge, 1994; Price and Mueller, 1986a; Smith, et al., 1969).

Kinship responsibility, following Mulinge (1994), is defined as the degree of involvement with relatives in the local community or with relatives who are dependent on one's income for their economic survival. This is an adaptation of Brief and Aldag's (1980) term "family responsibility." I concur with Mulinge (1994) that this definition is more suited for the Kenyan situation where the extended family is still strong and economic responsibilities over kin extend beyond the nuclear family of husband, wife and their immediate offsprings. Because kinship responsibility has some bearing on an employee's decision to terminate employment (the employee may have ties to kin in the local community and/or a number of individuals dependent on the income from the job), it is hypothesized to positively impact on especially organizational commitment. Empirically, the variable has been demonstrated to indirectly affect turnover through organizational commitment (Blegen, et al., 1988, Brooke and Price, 1989; Iverson and Price, 1990) and intent to stay (Iverson and Price, 1990; Price and Mueller, 1981, 1986a). However, Brief and Aldag (1980) and Mulinge (1994) found kinship responsibility to be positively related to commitment.

Demographic Correlates

Missing from the list of exogenous variables discussed above is a set of employee demographic characteristics such as age, sex, marital status, education, tenure (length of service), and labor force experience. Although these may not affect satisfaction and commitment, they may lead to systematic differences in the job rewards that are hypothesized
to impact on job satisfaction and organizational commitment. Education per se, for example, does not affect job satisfaction; the other variables (rewards) correlated with education are what impact on job satisfaction. This study will include the following background variables: education, tenure, and work sector.

_Education_ refers to the highest level of formal schooling or training an individual has had. Both job satisfaction (Glenn and Weaver, 1982; Gruenberg, 1980; King, Murry, and Atkinson, 1982; Mottaz, 1984; Wright and Hamilton, 1978) and organizational commitment (Angle and Perry, 1981; Koch and Steers, 1978; Morris and Sherman, 1981) have been demonstrated to vary negatively with the employee level of education. On the other hand, _tenure_ refers to the individual's length of service in the organization. Tenure has been reported to be positively related to job satisfaction (Katz, 1978; Mulinge, 1994) and commitment (Alvi and Ahmed, 1987; Buchanan, 1974; Koch and Steers, 1978; Lee, 1971; March and Simon, 1958; Mowday et al., 1979; Sheldon, 1971; Wiener, 1982). Finally, because this study covers agricultural technicians spread over two employment sectors, I will control for _work sector_ to capture any differences in the kind of tasks performed by the employees.

**Intervening and Endogenous Variables**

The study will include one intervening variable, _job satisfaction_, which is also a dependent variable in its own right, and one dependent variable, _organizational commitment_. While job satisfaction refers to the degree to which an employee likes his/her job (Price and Mueller, 1986a), organizational commitment is the degree to which an employee is emotionally attached to, identifies with and is involved in the organization (Allen and Meyer, 1990). I posit that the exogenous variables will directly impact on both job satisfaction and organizational commitment.
CHAPTER IV
DATA AND METHODS

This chapter is a descriptive presentation of the procedures utilized to collect the data used in the study and to carry out the analysis. It describes the research sites, units of analysis, the study sample, data collection procedures, the response rate, operational measures of the variables, and the methods of data analysis.

Research Sites

This study utilizes secondary data collected in Kenya between November 1991 and July 1992 by Munyae M. Mulinge. Kenya lies astride the equator on the east coast of Africa. The country is bordered by Somalia to the north-east, Ethiopia and Sudan to the north, Uganda to the west, and Tanzania to the south. Kenya is a former British colony founded on settler agriculture. About 85% of the country's population is rural deriving their livelihood from agriculture. Agriculture still remains the principal economic sector of the country. It is the leading employer and foreign exchange earner for Kenya. During 1992, for example, the sector contributed an estimated 26% of GDP and employed about 76% of the total labor force (Europa Publications, 1994). While coffee and tea are the principal cash crops, horticultural produce, pyrethrum, sisal, sugar cane, and cotton are also important. Maize (corn) is the major subsistence crop. In addition, there is a significant dairying industry serving both the domestic and export markets.

Units of Analysis

The data analyzed by this study was collected through surveys administered to technically trained agricultural workers employed in public, parastatal, and private sector organizations in Kenya. These are individuals who have formal training in agriculture or in an agriculturally related field (such as plant breeding, horticulture, agronomy, plant pathology,
entomology, soil conservation, etc.), and are either engaged in educating farmers about better farming techniques, commonly referred to as extension services, or in agricultural research. Agricultural technicians in Kenya are individuals with diverse levels of formal training. While some have postgraduate training in agriculture, others have Bachelor of Science degrees, diplomas, and certificates in agriculture. Whatever, their levels of formal training, these individuals are central in economic development in Kenya. Agriculture is the mainstay of the economy and the agricultural technicians are the critical personnel in the sector.

The specific organizations studied included the Ministry of Agriculture (representing the public sector); the Kenya Agricultural Research Institute (KARI) for the parastatal sector; and British American Tobacco (BAT) Kenya Limited, Brooke Bond Kenya Limited, Kenya Breweries Limited, and East African Industries Limited (representing the private sector). While the Ministry of Agriculture was sampled because it is virtually the only public sector employer of agricultural technicians, KARI (the parastatal organization studied) was selected because it has the biggest concentration of agricultural technicians relative to other parastatals. The private sector organizations studied, on the other hand, constituted the major employers of agricultural technicians for that sector. For a detailed description of these organizations see Mulinge (1994).

Patterns of ownership, sources of funding, and organizational purpose/goal were utilized to distinguish organizations within the three sectors studied. On the basis of these characteristics, public organizations were defined as organizations or agencies which are a part of the state (Wamsley and Zald, 1973). These are totally owned and controlled by the government and mainly include government ministries. Public organizations are monopolistic in nature (Gortner, 1977; Graham and Hays, 1993; Kaufman, 1976). They are constituted by law to provide services at no user charges. Consumers have no alternative but to use these services. Their decisions and policies are mainly influenced by politics; even their very existence appears to be, for the most part, a political decision.
Parastatal or semi-public sector organizations, on the other hand, are semi-autonomous government monopolies established through an Act of Parliament with the primary goal to offer government controlled services to the public such as power and lighting, telephone and postal services, and research or the development of technical knowledge and innovations to the public. Their services are aimed at boosting the image and legitimacy of the political system. The major sources of funding for parastatal organizations in Kenya are government grants or private donor grants channelled through the government. Certain parastatal organizations, however, do finance their operations through user charges. Although these are expected to make profits, profitability does not appear to be the ultimate criterion for their continued survival. Whenever losses threaten their survival, the government steps in with subsidies to guarantee their continued operation. Any surplus profits made by these organizations are repatriated to the government treasury. Management in these organizations enjoys some measure of autonomy in decision making but they remain accountable to the political system.

Finally, private sector organizations were defined as organizations (businesses or corporations) that are owned and funded by international or local commercial companies and/or groups of investors with the sole goal of generating profits through user charges for goods and/or services. These operate in a competitive market environment where profitability is the ultimate measure of success. Customers have a choice and may even refuse to accept the products and/or services of one organization in favor of those from another organization that more satisfactorily meets their needs (Gortner, 1977). Because their success is dependent on profits or returns from investments, failure to serve the customer satisfactorily by such organizations will eventually threaten their continued existence. In Kenya, the major organizations in this category are subsidiaries of multinational corporations based in Europe and North America. They include, among others, British American Tobacco (Kenya)
Limited, International Business Machines, East African Industries, General Motors, Brooke

The Study Sample

Surveys (self-administered questionnaires) were distributed to a probability sample of
1,850 technically trained agricultural workers in the three sectors identified above as follows:
Public sector, 1,102 respondents; parastatal (semi-public) sector, 503 respondents; and private
sector, 245 respondents. Because the population targeted by the study is spread all over
Kenya, the bulk of the sample studied was selected using area cluster sampling procedures.
This way, it was possible to overcome high costs in time and resources (see Bailey, 1989;
Babbie, 1989). The sample selection process, however, varied by sector. Area cluster
sampling was utilized for the public sector, whose target population is the most widely spread.
Utilizing administrative districts as sampling units, the research randomly selected and studied
6 out of the 41 districts in the country. In every sampled district, all agricultural technicians
who were not on annual or study leave were given questionnaires. For the parastatal sector,
on the other hand, research centers constituted the units of analysis. Here, probability
sampling was also used to select the research centers studied. Out of a total of 34 research
centers that compose the Kenya Agricultural Research Institute, 8 were randomly selected and
studied. Questionnaires were distributed to all agricultural technicians on duty at the time of
the survey. Finally, because of the small numbers of agricultural technicians employed by
individual private firms, the researcher combined several private sector firms to achieve a
large enough sample. The sampling process started with a compilation of a list of private
sector firms that employed agricultural technicians. These were rank ordered based on the
number of agricultural technicians they employed. Agricultural technicians in the top four
organizations were studied. Questionnaires were distributed to all technicians who were not
on annual or study leave.
Data Collection Procedures

Surveys were administered to all respondents by either Munyae M. Mulinge (the principal investigator) or his assistant. In order to strengthen item accuracy, clarity, and ease of respondent completion of the questionnaire, efforts were made by the researcher or his assistant to explain the purpose of the study to the respondents before the surveys were distributed to them. Any concerns that the respondents might have had were addressed before their co-operation could be enlisted for the study. A more detailed description of the actual data collection procedures for each sector is presented below.

To administer the surveys to public sector respondents, Mulinge obtained a listing of agricultural technicians by divisions plus a calendar of biweekly training sessions for officers in every division from the district agricultural offices. During divisional biweekly training sessions all officers in each division converge at a selected farm to learn, from the divisional heads, new innovations emanating from the district offices. Guided by the schedule of biweekly training sessions, the researcher, in liaison with the divisional heads, chose a suitable date during which to launch the survey in each division within the sampled districts. On this date the study was explained to the participating officers and surveys were distributed to them by the researcher or his assistant. Each respondent was provided with an envelope in which to seal his/her completed survey before returning it to the researcher or his assistant. Respondents were allowed up to the next training session to complete and return their surveys. The researcher or his assistant attended at least three subsequent biweekly training sessions so as to collect the surveys directly from the respondents and to issue follow up reminders to those officers who had not returned their surveys. Whenever requested, a new questionnaire would be issued to any respondent who indicated that they had misplaced the first copy. Respondents could also return their completed (and sealed) surveys to divisional offices where the secretary/clerk would hold them until the researcher picked them up.
For the parastatal sector, on the other hand, the researcher contacted the directors of all the research centers sampled for the study to arrange for a suitable date during which the surveys could be administered to agricultural technicians. As with the public sector, respondents were allowed two weeks to complete and return their sealed surveys to the director's office or to a coordinator appointed by the center director. Where reminder notices were necessary, they were posted on bulletin boards in each research center.

Response Rate

Out of the 1,850 surveys distributed to respondents, 1,447 were completed and returned. This represented a 78.22% response rate. The response rate, however, varied across the three sectors studied. For the public sector, 824 out of 1,102 surveys (74.77%) were completed and returned. For the parastatal sector the number was 405 out of 503 surveys (or 80.52%), while for the private sector it was 219 out of 245 surveys (or 88.98%). For the purpose of this study, only the responses from the public and parastatal sector will be analyzed. The decision to exclude responses from the private sector was reached mainly because the number of female respondents in the private sector is negligible. Also, as implied earlier, the private sector is relatively different from the public and parastatal sectors. This step reduces the sample to be analyzed by this study to 1,229 respondents. Out of this total, 815 respondents are males and 414 respondents are females. These are distributed across the two sectors as follows: public sector, 510 males and 314 females; parastatal sector, 305 males and 100 females.

Measurement

All exogenous variables analyzed in this study, except pay, fringe benefits, kinship responsibility, financial security, gender, education, tenure, and the two sector dummies, were measured using multiple item indices. Respondents were asked to rate each item on a Likert-
type scale with five response points. Most of the scales have been used in previous studies (see e.g., Agho, 1989; Allen and Meyer, 1990; Brooke, 1986; Constable, 1983; Griffin, Moorehead, Johnson, and Chonko, 1980; Hackman and Oldham, 1980; House, 1981; Mottaz, 1988; Price and Mueller, 1986a; Mulinge, 1994; Sorenson, 1985) and have been judged to have acceptable validity and reliability. Table 2 presents a summary of the various questionnaire items used to operationalize each variable. The full questionnaire is presented in Appendix B. In the subsections that follow, I assess the reliability and validity of the measures and discuss the operationalization of the constructs.

Table 2. Operational Measures of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Question Number</th>
<th>Type of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endogenous Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction (H2)</td>
<td>16, 69, 88, 100</td>
<td>Scale</td>
</tr>
<tr>
<td>Organizational Commitment (H2)</td>
<td>43, 53, 76, 101</td>
<td>Scale</td>
</tr>
<tr>
<td><strong>Exogenous Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic Rewards (H1; H3a, b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>22, 40, 65</td>
<td>Scale</td>
</tr>
<tr>
<td>Participation in decision making</td>
<td>114, 122, 124</td>
<td>Scale</td>
</tr>
<tr>
<td>Upward communication</td>
<td>64, 93, 105</td>
<td>Scale</td>
</tr>
<tr>
<td>Task significance</td>
<td>42, 51, 63</td>
<td>Scale</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>102, 106, 115, 118</td>
<td>Scale</td>
</tr>
<tr>
<td>Job variety</td>
<td>80, 111, 126</td>
<td>Scale</td>
</tr>
<tr>
<td>Organizational Extrinsic Rewards (H1; H4a,b)</td>
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<td></td>
</tr>
<tr>
<td>Pay</td>
<td>137</td>
<td>Scale</td>
</tr>
<tr>
<td>Fringe benefits</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Promotional opportunity</td>
<td>38, 49, 70, 97</td>
<td>Scale</td>
</tr>
<tr>
<td>Job security</td>
<td>32, 59, 99</td>
<td>Scale</td>
</tr>
<tr>
<td>Career growth</td>
<td>21, 52, 67</td>
<td>Scale</td>
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<tr>
<td>(In)convenience Extrinsic Rewards (H1; H5a,b)</td>
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<td></td>
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<tr>
<td>Role overload</td>
<td>35, 44, 50</td>
<td>Scale</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>19, 31, 36</td>
<td>Scale</td>
</tr>
<tr>
<td>Role conflict</td>
<td>29, 37, 81</td>
<td>Scale</td>
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Table 2. (ccontinued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Question Number</th>
<th>Type of Measure</th>
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</thead>
<tbody>
<tr>
<td>Social Extrinsic Rewards (H1; H6b, b)</td>
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<td>Supervisory support</td>
<td>92, 104, 108</td>
<td>Scale</td>
</tr>
<tr>
<td>Co-worker support</td>
<td>20, 34, 45</td>
<td>Scale</td>
</tr>
<tr>
<td>Work group cohesion</td>
<td>112, 116, 119</td>
<td>Scale</td>
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<tr>
<td>Nonreward Variables</td>
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<tr>
<td>Firm-specific training</td>
<td>23, 47, 57, 68</td>
<td>Scale</td>
</tr>
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<td>Work motivation</td>
<td>17, 75, 89</td>
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<td>Positive affectivity</td>
<td>62, 90, 109</td>
<td>Scale</td>
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<tr>
<td>Negative affectivity</td>
<td>74, 95, 107</td>
<td>Scale</td>
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<tr>
<td>Financial Security</td>
<td>139, 140, 141</td>
<td>Scale</td>
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<td>External opportunities</td>
<td>73, 96, 103</td>
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<tr>
<td>Education</td>
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<tr>
<td>Tenure</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td></td>
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<tr>
<td>Work Sector</td>
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</tr>
</tbody>
</table>

Reliability and Validity

Two criteria, reliability and validity, are used to assess the quality of multiple-item measures of constructs. Reliability refers to the extent to which a measurement produces consistent results whenever applied repeatedly to the same object (Carmines and Zeller, 1979). To estimate the reliability of the multiple-item measures, coefficient alpha (Cronbach, 1951) was used. Table 3 presents the descriptive statistics for the measures including alpha coefficients for constructs measured using multiple items. From the table it is evident that all constructs measured with multiple indicators have acceptable reliabilities. These are quite high ranging from .71 for task significance to .89 for job variety.

Validity, broadly defined, refers to the degree to which an empirical measure adequately captures the concept it is designed to measure (Carmines and Zeller, 1979). In this
Table 3. Descriptive Statistics for Variable Measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range</th>
<th>Alpha</th>
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</thead>
<tbody>
<tr>
<td><strong>Endogenous Variables</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Organizational commitment</td>
<td>4</td>
<td>3.73</td>
<td>0.77</td>
<td>1-5</td>
<td>.77</td>
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<tr>
<td>Job satisfaction</td>
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<td>3.74</td>
<td>0.87</td>
<td>1-5</td>
<td>.86</td>
</tr>
<tr>
<td><strong>Exogenous Variables</strong></td>
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<tr>
<td><strong>Intrinsic Rewards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>3</td>
<td>3.01</td>
<td>1.02</td>
<td>1-5</td>
<td>.85</td>
</tr>
<tr>
<td>Decision making</td>
<td>3</td>
<td>1.97</td>
<td>0.86</td>
<td>1-5</td>
<td>.76</td>
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<tr>
<td>Upward communication</td>
<td>3</td>
<td>3.30</td>
<td>1.00</td>
<td>1-5</td>
<td>.80</td>
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<tr>
<td>Task significance</td>
<td>3</td>
<td>4.13</td>
<td>0.69</td>
<td>1-5</td>
<td>.71</td>
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<tr>
<td>Distributive justice</td>
<td>4</td>
<td>2.61</td>
<td>0.97</td>
<td>1-5</td>
<td>.87</td>
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<td>Job variety</td>
<td>3</td>
<td>3.27</td>
<td>1.02</td>
<td>1-5</td>
<td>.89</td>
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<tr>
<td><strong>Organizational Extrinsic Rewards</strong></td>
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<tr>
<td>Pay</td>
<td>4,635.56</td>
<td>2,442.82</td>
<td>500-18,750</td>
<td>1</td>
<td>n.a.</td>
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<tr>
<td>Fringe benefits</td>
<td>5.38</td>
<td>1.48</td>
<td>1-12</td>
<td>1</td>
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<tr>
<td>Promotional opportunity</td>
<td>4</td>
<td>2.89</td>
<td>0.97</td>
<td>1-5</td>
<td>.84</td>
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<td>Job security</td>
<td>3</td>
<td>3.87</td>
<td>0.79</td>
<td>1-5</td>
<td>.79</td>
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<tr>
<td>Career growth</td>
<td>3</td>
<td>3.34</td>
<td>1.06</td>
<td>1-5</td>
<td>.84</td>
</tr>
<tr>
<td><strong>(In)convenience Extrinsic Rewards</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role overload</td>
<td>3</td>
<td>2.70</td>
<td>1.06</td>
<td>1-5</td>
<td>.88</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>3</td>
<td>1.72</td>
<td>0.70</td>
<td>1-5</td>
<td>.76</td>
</tr>
<tr>
<td>Role conflict</td>
<td>3</td>
<td>2.52</td>
<td>0.83</td>
<td>1-5</td>
<td>.73</td>
</tr>
<tr>
<td><strong>Social Extrinsic Rewards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory support</td>
<td>3</td>
<td>3.65</td>
<td>0.76</td>
<td>1-5</td>
<td>.75</td>
</tr>
<tr>
<td>Co-worker support</td>
<td>3</td>
<td>3.72</td>
<td>0.79</td>
<td>1-5</td>
<td>.81</td>
</tr>
<tr>
<td>Work group cohesion</td>
<td>3</td>
<td>3.60</td>
<td>0.74</td>
<td>1-5</td>
<td>.77</td>
</tr>
<tr>
<td><strong>Nonreward Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm-specific training</td>
<td>4</td>
<td>2.83</td>
<td>1.03</td>
<td>1-5</td>
<td>.85</td>
</tr>
<tr>
<td>Work motivation</td>
<td>3</td>
<td>4.08</td>
<td>0.71</td>
<td>1-5</td>
<td>.77</td>
</tr>
<tr>
<td>Positive affectivity</td>
<td>3</td>
<td>3.28</td>
<td>0.92</td>
<td>1-5</td>
<td>.83</td>
</tr>
<tr>
<td>Negative affectivity</td>
<td>3</td>
<td>2.55</td>
<td>0.91</td>
<td>1-5</td>
<td>.82</td>
</tr>
<tr>
<td>Financial security</td>
<td>1</td>
<td>2,520.12</td>
<td>4,607.96</td>
<td>0-70,000</td>
<td>n.a.</td>
</tr>
<tr>
<td>External opportunities</td>
<td>3</td>
<td>2.35</td>
<td>0.81</td>
<td>1-5</td>
<td>.79</td>
</tr>
<tr>
<td>Kinship responsibility</td>
<td>1</td>
<td>5.66</td>
<td>1.77</td>
<td>0-10</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
study, exploratory factor analysis (see Campbell and Fiske, 1959) is used to assess two forms of validity for the multiple item measures: convergent and discriminant validity. Convergent validity is the extent to which multiple items measure a single construct, (Campbell and Fiske, 1959). Discriminant validity, on the other hand, refers to the extent to which multiple items measure related but distinct constructs (Bohmstedt, 1983). Separate analyses are performed for the exogenous and endogenous variables. A factor loading of .30 is used as the cutoff when assessing which factors the items loaded on (Kim and Mueller, 1978:70). Appendix A (Tables 15 through 18) presents the exploratory factor analyses results. The factor structures for both the exogenous and endogenous variables are clear.

Operationalization of Exogenous Variables

To make the discussion of the operationalization of the constructs easier to follow, this section utilizes the three broad categories of intrinsic rewards, extrinsic rewards and non-rewards to group the exogenous variables. Each cluster of variables is discussed separately starting with intrinsic rewards. All exogenous variables with the exception of pay, fringe benefits, financial security, kinship responsibility, and all demographic correlates were measured utilizing multiple item scales. Unless indicated otherwise all items were coded "strongly agree" (1) to "strongly disagree" (5). R indicates the coding was reversed. A
detailed list of all items utilized to measure the various constructs included under each of the three categories listed above is undertaken below. Exploratory analysis factor loadings are presented in Appendix A Tables 15 to 17. All loadings were obtained from a single run with all items entered.

**Intrinsic Rewards**

All variables considered to be intrinsic rewards in this study were measured using multiple item scales. The specific items that were used to measure each construct are presented in Table 4. With the exception of *distributive justice* which was measured with a four-item scale, all intrinsic rewards were captured using three-item scales. Items for each construct loaded on a single factor. Detailed factor loadings for each construct are presented in Table 15, Appendix A. These range between .770 and .799, for autonomy measures, .595 and .736 for participation in decision making items, .559 and .714 for upward communication items, .504 and .808 for task significance scales, .535 and .795 for distributive justice measures, and between .757 and .903 for job variety scales. The items for each construct have acceptable reliabilities. Alpha coefficients range from .71 for task significance to .89 for job variety.

**Extrinsic Rewards**

Of the extrinsic rewards analyzed in this study, only two, *pay* and *fringe benefits*, were operationalized using non scale measures. Pay was measured in terms of Kenya Shillings received by the employee from the work setting per month before taxes and other deductions are made. Fringe benefits, on the other hand, was operationalized by a list of possible items that employees could receive from their jobs as fringe benefits. Respondents were asked to circle those items on the list that were offered by their current employers as fringe benefits. The rest of the extrinsic rewards, with the exception of *promotional opportunities* which was
Table 4. Measures of Intrinsic Rewards

<table>
<thead>
<tr>
<th>Measure</th>
<th>1 Strongly Agree</th>
<th>2 Agree</th>
<th>3 Neither Agree Nor Disagree</th>
<th>4 Disagree</th>
<th>5 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I control the scheduling of my work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I influence the things that affect me on the job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have inputs in deciding what tasks or parts of tasks I will do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in decision making</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I usually participate in decision making to hire new professional staff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I usually do not participate in decision making to promote professional staff (R).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often participate in decisions in the adoption of new policies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is easy to communicate any information I have concerning my job to higher level administrators.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reaching those at higher levels of administration in my job is almost impossible (R).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback from baseline workers in my job hardly gets to top policy makers (R).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task significance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My work is a significant contribution to the successful operation of my department.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My work is really important and worthwhile to my department.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often feel that my work counts for very little around here (R).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributive justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am rewarded fairly considering the responsibilities that I exercise (money and recognition are examples of rewards).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am not fairly rewarded taking into account the amount of education and training I have had (R).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am rewarded fairly for the amount of effort that I put in.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am fairly rewarded in view of the amount of experience that I have.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job variety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My duties are repetitious in my job (R).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My job has variety.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have the opportunity to do a number of different things in my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
measured utilizing a four-item index, were captured using three-item scales. Table 5 summarizes the specific items used to capture each construct. Based on exploratory factor analysis, items for each of these constructs loaded on a single factor. Detailed factor loadings for each construct are presented in Table 16, Appendix A. These range between .483 and .847. All constructs have acceptable reliabilities. Alpha coefficients range from .73 for role conflict to .88 for role overload.

Table 5. Measures of Extrinsic Rewards

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

**Organizational Extrinsic Rewards**

Promotional opportunity
- I have the opportunity for advancement.
- I am in a dead-end job (R).
- I can move up quickly in my present job.
- I have a good chance to move up in this organization.

Job security
- I will be able to keep my present job as long as I wish.
- My job is not a secure one (R).
- I am secure in my job.

Career growth
- My organization provides me the opportunity to improve my professional skills and knowledge.
- My organization offers the means for me to keep up with new developments related to my job.
- My organization does not provide the means for me to attend courses which increase my job skills and knowledge (R).

(In)convenience Extrinsic Rewards

Role overload
- I do not have enough time to get everything done in my job.
- I have to work very fast in my job to keep up with my work.
- My work load is too heavy in my job.

Role ambiguity
- I do not know exactly what my responsibilities are in performing my job.
- I know exactly what is expected of me in my job (R).
- I know how to get my job done (R).
Table 5. (continued)

<table>
<thead>
<tr>
<th></th>
<th>1 Strongly Agree</th>
<th>2 Agree</th>
<th>3 Neither Agree Nor Disagree</th>
<th>4 Disagree</th>
<th>5 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role conflict</td>
<td>I get conflicting job requests from my administrators/supervisors.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I get conflicting job requests from my coworkers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Job requests from my administrators and co-workers are often conflicting.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Social Extrinsic Rewards**

**Supervisory support:**
- When things get tough in my job I can rely on my supervisors for help.
- My supervisor is willing to listen to my job-related problems.
- My supervisor is helpful to me in getting my job done.

**Co-worker support:**
- My co-workers can be relied upon when things get tough on my job.
- My co-workers are willing to listen to my job-related problems.
- My co-workers are helpful to me in getting my job done.

**Work group cohesion:**
- Individuals in my work group are very friendly.
- People in my work group take personal interest in me.
- I very much look forward to being with the people in my group each day.

**Nonreward Variables**

Five of twelve nonreward variables were measured using multiple-item scales. These are *firm-specific training, work motivation, positive affectivity, negative affectivity, and external opportunities*. Except for firm-specific training which was operationalized using four items, three-item scales were utilized to capture these constructs. The particular measures used for each construct are depicted in Table 6. The measures for each construct loaded on a single factor with factor loadings ranging from .493 to .855. Factor loadings for each construct are presented in Table 17, Appendix A. These measures also have acceptable reliabilities. The alpha coefficients range between .77 for work motivation measures to .87 for the firm-specific training items.
Table 6. Measures of Non Reward Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm-specific training</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neither Agree Nor Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td></td>
<td>Doing my job depends on knowledge and skills learned while working for this organization.</td>
<td>The skills and knowledge I acquired through formal education/training have been adequate for me to perform my job competently in this organization (R).</td>
<td>The skills I use to carry out my duties in my job only fit my present work setting.</td>
<td>The skills I use to do my job in this organization would transfer easily to most other organizations (R).</td>
<td></td>
</tr>
<tr>
<td>Work motivation:</td>
<td>Work is something people should get involved in most of the time.</td>
<td>Work should only be a small part of one's life (R)</td>
<td>Work should be considered central in life.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive affectivity:</td>
<td>It is easy for me to become enthusiastic about something I am doing.</td>
<td>I often feel happy and satisfied for no particular reason.</td>
<td>I always seem to have something pleasant to look forward to.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative affectivity:</td>
<td>Often I get irritated at little annoyances.</td>
<td>My mood often goes up and down.</td>
<td>I sometimes feel miserable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External opportunities:</td>
<td>It would be very easy for me to find a job with another employer that is as good as the one I now have.</td>
<td>It would be very easy for me to find a job with another employer that is better than the one I now have.</td>
<td>It would be very easy for me to find a job with another employer that is much better than the one I now have.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The non reward variables that were measured using single items financial security, kinship responsibility, education, gender, tenure, and work sector. To measure financial security, respondents were asked to indicate the amount of money they made from sources other than their jobs, their spouse's income from formal employment, and their spouse's income from other sources other than formal employment. The sum total of these incomes
was used in the analysis. Kinship responsibility, on the other hand, was operationalized by a summation of components of the following items: (1) Marital status: 1 if married, 0 if not married; (2) Presence of resident dependents: and age of children: 0 if none, 1 for one through two dependents, 2 for three through six dependents, three for seven through twenty-four dependents; (3) Presence of non resident dependents: 0 for none, 1 for one through two dependents, 2 for three through six dependents, 3 for seven through twenty dependents; (4) Respondent's/spouse's kin in the community: 0 if none present, 1 if one through two, 2 if three through six, and 3 if seven through fifty kin. The range for the variable is 0-10.

While education was measured by the number of years of formal schooling and training the individual had had, gender was measured by a dichotomy where 1 stands for female and 0 for male. Tenure, on the other hand, was measured by the length of time (the number of years) the respondent was employed by the current organization. Finally, work sector was captured by two dummy variables with the parastatal sector being the omitted (comparative) category.

Endogenous Variables Measurement

The two endogenous variables in this study, job satisfaction and organizational commitment, were measured using multiple-item indices in which items were coded "strongly agree" (1) to "strongly disagree" (5). The specific measures of each construct are presented in Table 7. Based on factor analysis results, the items for each construct separated into a single factor. Factor loadings (see Table 18 Appendix A) range from .553 to .861. Acceptable reliabilities were realized for the measures. The alpha coefficients are .86 for the measures of job satisfaction and .77 for those of organizational commitment.
Table 7. Measures of endogenous Variables

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree Nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction:</td>
<td>I find real enjoyment in my job.</td>
<td>I definitely dislike my job (R).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel dissatisfied with my present job (R).</td>
<td>I am fairly well satisfied with my job.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational commitment:</td>
<td>I talk of this work setting to my friends as a great place to work.</td>
<td>I do not feel a strong sense of belonging to my organization (R).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am proud to tell others that I am part of this organization.</td>
<td>I feel very little loyalty to this organization (R).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Analysis Methods**

The data analysis will commence with a presentation describing the study sample using descriptive statistics. To test for differential treatment in the workplace for men and women (hypothesis $H_1$), and for differences in job satisfaction and organizational commitment (hypothesis $H_2$), mean levels in the various rewards and in satisfaction and commitment will be used. $T$-tests (one-tailed) will be utilized to check for the possible existence of significant differences between group means. On the other hand, to estimate the relative influence of job rewards on job satisfaction and organizational commitment for both men and women, (hypotheses $H_{3a}$ through $H_{6b}$) and to construct path models for the gender groups, ordinary least squares multiple regression (MR) analysis will be performed as follows: First, to test hypotheses $H_{3a}$ through $H_{6b}$, separate analyses will be performed for each category of rewards analyzed jointly with gender and interaction terms for gender with rewards. Second, to construct path models for the gender groups, separate analysis will be performed for each gender group utilizing only those rewards that will be found to have significant effects on satisfaction and commitment in step one. In every stage of the analysis, standardized (b) regression coefficients and $R^2$ values will be examined for job satisfaction and organizational
commitment. While regression coefficients (standardized) represent the net effects of the independent variables on the dependent variable, the $R^2$ values represent the amount of variance in the dependent variable explained by the set of independent variables in the equation. Finally, using the t-statistic, I will check for mean differences in the values (importance) attached to various workplace rewards by men and women (hypotheses $H_{16a}$ through $H_{16c}$) to assess whether men and women value the same rewards.
CHAPTER V
RESULTS

This chapter is organized into five sections. In section one, using descriptive statistics, I present a description of the study sample. Section two contains the results from t-tests of mean differences in workplace rewards and in job satisfaction and organizational commitment for males and females. The discussion in this section centers around the paradox of the contended female employee. In the third section I present the results of the regression analysis of the effects of rewards on the job satisfaction and organizational commitment for both males and females. At issue in this section is the question of whether different rewards operate differently to influence job satisfaction and organizational commitment among men and women. Section four focuses on gender differences in the importance attached to various workplace rewards. The final section presents the results of the separate regression analysis for each gender group utilizing those rewards that were found to be significant in section three jointly with nonreward variables. Based on the analyses in this section, path models are constructed; one for each gender group.

Description of the Sample

The sample analyzed in this study was composed of 1229 (414 females and 815 males) agricultural technicians working in the public and parastatal sectors in Kenya. Listwise deletion of cases with missing data reduced the sample size to 1038; 707 males, and 331 females. About 93.3% of the males and and 70% females respectively were married. The rest had either never married or were divorced or separated. Educational attainment for the sample ranged between 7 and 22 years of schooling. About 6%, 84.6% and 9.4% of the males had attained 12 or less years, 13-17 years, and 18-22 years of schooling respectively. For the female subsample, the distribution was 5.5%, 88.2%, and 6.3% respectively. The first
category mainly included individuals who had completed nine years of formal schooling before attending a three-year training in an agricultural training institute. The second category on the other hand, was composed of individuals who had completed high school before attending a diploma college to train in agriculture. Finally, individuals grouped under category three were those who had attained a bachelors degree or above in agriculture. The mean educational attainment for the total sample was 13.78 years; the standard deviation was 2.25 years. Mean educational attainment for males and females were not significantly different. These stood at 13.82 years (with a standard deviation of 2.34) for males and at 13.73 years (with a standard deviation of 2.04) for females.

The length of service (tenure) for the employees studied ranged between 1 and 36 years. The mean tenure for the total sample was 10.38 years; the standard deviation was 7.80. Significant differences existed in tenure for males and females. While the mean tenure for males stood at 10.76 years, that for females was 8.73 years; the standard deviations for both groups were 8.47 and 5.86 respectively. The sample also differed in terms of mean earnings. While the mean income for the total sample was KShs. 4,635.56, it was KShs. 4,968.53 and KShs. 4,221.30 for men and women respectively. Finally, the study sample could be described as being characterized by moderate levels of job satisfaction and organizational commitment. Based on a five point scale, the mean levels in job satisfaction and organizational commitment for the total sample were 3.74 and 3.73 points, respectively. The standard deviations were 0.87 for satisfaction and 0.77 for commitment. While the mean satisfaction for males was 3.80 with a standard deviation of .85, that for females was 3.63 with a standard deviation of .89. The mean level in organizational commitment, on the other hand, was 3.75 with a standard deviation of .76 for males and 3.70 with a standard deviation of .80 for females. On the average, both men and women were moderately satisfied with their jobs and committed to the work organizations.
Testing For the Paradox of the Contented Female Worker

To address the question as to whether the paradox of the contented female worker applies to agricultural technicians in Kenya, I tested for the existence of no gender differences in job satisfaction and organizational commitment (see hypothesis H₂) in the presence of a substantial gender differences in intrinsic and extrinsic job rewards (hypothesis H₁). This was accomplished by performing mean comparisons for males and females using t-tests. It should be remembered here that, for differences in job satisfaction and organizational commitment (hypothesis H₂), the research hypothesis was a null hypothesis. Table 8 presents the group mean differences in job satisfaction and organizational commitment, as well as in intrinsic and extrinsic rewards that men and women could differ in.

Based on Table 8, women agricultural technicians in the parastatal and public sectors in Kenya receive inferior workplace rewards relative to men. An examination of the mean differences in intrinsic and extrinsic rewards showed that there existed substantial sex differences in most measures of job rewards with the effect that women perceived themselves to be receiving less rewards than men from their jobs. Overall, the results were supportive of hypothesis H₁ of the study. With particular reference to intrinsic rewards, female agricultural technicians in Kenya perceived their jobs to be substantially lower in autonomy, task significance, distributive justice, and job variety. Women's mean scores for these rewards, respectively, were less than men's by .16, .11, .13, and .15 points. No differences were found in perceived levels of decision making opportunities and in opportunities to communicate information to higher level administrators. The results also showed that, although men and women did not differ significantly in the organizational extrinsic rewards of fringe benefits, job security, and career growth, women earned substantially less (KShs. 733.64) than men and perceived fewer promotional opportunities. Concerning (in)convenience extrinsic rewards, women perceived significantly lower work loads and higher role ambiguity in their jobs than did men. Mean scores for the two groups differed by .13 points for role overload and by
Table 8. Gender Means for Job Rewards, Satisfaction, and Commitment

<table>
<thead>
<tr>
<th>Variables</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
<th>t-value</th>
<th>p-value^</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
<td>Std. Dev.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic Rewards (H₁)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.06</td>
<td>1.02</td>
<td>2.90</td>
<td>1.00</td>
<td>2.57</td>
<td>.005</td>
</tr>
<tr>
<td>Decision making</td>
<td>1.99</td>
<td>0.86</td>
<td>1.93</td>
<td>0.85</td>
<td>1.00</td>
<td>.136</td>
</tr>
<tr>
<td>Upward communication</td>
<td>3.32</td>
<td>1.00</td>
<td>3.26</td>
<td>0.99</td>
<td>0.91</td>
<td>.182</td>
</tr>
<tr>
<td>Task significance</td>
<td>4.17</td>
<td>0.66</td>
<td>4.06</td>
<td>0.73</td>
<td>2.62</td>
<td>.004</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>2.65</td>
<td>0.98</td>
<td>2.52</td>
<td>0.95</td>
<td>2.18</td>
<td>.015</td>
</tr>
<tr>
<td>Job variety</td>
<td>3.32</td>
<td>0.99</td>
<td>3.17</td>
<td>1.05</td>
<td>2.49</td>
<td>.006</td>
</tr>
<tr>
<td>Organizational Extrinsic Rewards (H₁)</td>
<td>4883.52</td>
<td>2580.27</td>
<td>4149.88</td>
<td>2066.60</td>
<td>5.01</td>
<td>.000</td>
</tr>
<tr>
<td>Pay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fringe benefits</td>
<td>5.39</td>
<td>1.47</td>
<td>5.36</td>
<td>1.48</td>
<td>0.26</td>
<td>.398</td>
</tr>
<tr>
<td>Promotional opportunity</td>
<td>2.93</td>
<td>0.97</td>
<td>2.80</td>
<td>0.96</td>
<td>2.21</td>
<td>.014</td>
</tr>
<tr>
<td>Job security</td>
<td>3.86</td>
<td>0.79</td>
<td>3.89</td>
<td>0.78</td>
<td>-0.77</td>
<td>.221</td>
</tr>
<tr>
<td>Career growth</td>
<td>3.35</td>
<td>1.07</td>
<td>3.30</td>
<td>1.05</td>
<td>0.78</td>
<td>.218</td>
</tr>
<tr>
<td>(In)convenience Extrinsic Rewards (H₁)</td>
<td>2.75</td>
<td>1.03</td>
<td>2.62</td>
<td>0.99</td>
<td>2.07</td>
<td>.020</td>
</tr>
<tr>
<td>Role overload</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>1.68</td>
<td>0.68</td>
<td>1.80</td>
<td>0.75</td>
<td>-2.86</td>
<td>.002</td>
</tr>
<tr>
<td>Role conflict</td>
<td>2.53</td>
<td>0.84</td>
<td>2.49</td>
<td>0.83</td>
<td>0.83</td>
<td>.203</td>
</tr>
<tr>
<td>Social Extrinsic Rewards (H₁)</td>
<td>3.68</td>
<td>0.74</td>
<td>3.59</td>
<td>0.79</td>
<td>2.09</td>
<td>.018</td>
</tr>
<tr>
<td>Supervisory support</td>
<td>3.76</td>
<td>0.75</td>
<td>3.64</td>
<td>0.87</td>
<td>2.32</td>
<td>.010</td>
</tr>
<tr>
<td>Co-worker support</td>
<td>3.67</td>
<td>0.71</td>
<td>3.46</td>
<td>0.79</td>
<td>4.79</td>
<td>.000</td>
</tr>
<tr>
<td>Work group cohesion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endogenous Variables (H₂)</td>
<td>3.80</td>
<td>0.85</td>
<td>3.63</td>
<td>0.89</td>
<td>3.30</td>
<td>(.000)b</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>3.75</td>
<td>0.76</td>
<td>3.70</td>
<td>0.80</td>
<td>1.10</td>
<td>.136</td>
</tr>
<tr>
<td>Organizational commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^ All one-tailed

b ( ) Indicates the difference was opposite to the predicted direction.
.12 points for role ambiguity. Finally, relative to men, female agricultural technicians considered their supervisors and co-workers to be less supportive in job related matters and perceived their work groups to be less cohesive. Mean scores were higher for men in these three social extrinsic rewards by .09, .12, and .21 points respectively. The differences were all significant at .05 level or better (one-tailed test).

In light of the above findings, that women perceived inferior job rewards than did men, there should be significant differences in job satisfaction and organizational commitment for men and women agricultural technicians in Kenya. That is, differential treatment for men and women should lead to differences in satisfaction and commitment. On the other hand, the coexistence of similar gender satisfaction and/or commitment levels with dissimilar (worse for women) work conditions would suggest that the paradox of the contented female worker that has been documented in industrialized nations also existed in the Kenyan situation. As evident from table 8, male and female agricultural technicians in Kenya were significantly different in their levels of job satisfaction (t = 3.30, p = .000) but not in their levels of organizational commitment (t = 1.10, p = .136). The women's mean level in job satisfaction was .17 steps lower than the men's. These findings were partially consistent with previous literature on the paradox. That is, there was no paradox in job satisfaction. Given the differential treatment of men and women in the workplace, as documented above, women should have been less committed than men, but they were not. Hypothesis H2 was partially refuted (job satisfaction) and partially not rejected (organizational commitment). However, as far as this sample was concerned, men showed higher commitment than women (see Table 8). Therefore, the tendency, though statistically not significant, was toward a rejection of a commitment paradox.
The Effects of Job Rewards on Satisfaction and Commitment

The major purpose of this study, as stated earlier, is to assess the relative effects of workplace rewards, both intrinsic and extrinsic, on the job satisfaction and organizational commitment of men and women agricultural technicians in Kenya (H3a - H6b). To pursue this objective, multiple regression analysis was employed. Each category of rewards was analyzed separately with rewards, gender, and gender-reward interactions entered jointly to determine if job rewards differentially influence job satisfaction and organizational commitment for men and women. Results for each category of rewards are presented below starting with intrinsic rewards. For every category of rewards, standardized (b) regression coefficients are reported. These indicate the relative influence (predictive power) of each reward on job satisfaction and organizational commitment.

Intrinsic Rewards

Table 9 presents the results of the regression analysis for the effects of intrinsic rewards on job satisfaction and organizational commitment. From the table, it is evident that five of the six intrinsic rewards analyzed for job satisfaction had statistically significant effects for both men and women. These were autonomy, upward communication, task significance, distributive justice, and job variety. Neither gender nor any of the six gender-reward interactions analyzed was significant at the .050 or better level of significance. This means that male and female agricultural technicians who had autonomy in their jobs, who were able to transmit information up their organization's hierarchy, who considered their roles to constitute a significant contribution to the overall organizational work process, who perceived fair treatment in the workplace, and whose jobs had high job variety, had higher levels of job satisfaction. All the above relationships were in the predicted direction. These results presented strong support for hypothesis H3a of the study. The overall test produced an $R^2$ value of .459. The .002 change in $R^2$ value due to the inclusion of gender-reward interactions
was not significant at the .050 or better level of significance (one-tailed test); $F = 0.789$ with 6 and 1144 degrees of freedom. These findings suggest that intrinsic rewards operated similarly to influence job satisfaction for both male and female agricultural technicians in Kenya.

For organizational commitment, the results showed that the five intrinsic rewards that had significant effects on job satisfaction also significantly influenced organizational commitment for both men and women. That is, agricultural technicians who had autonomy in their jobs, were able to transmit information up their organization's hierarchy, considered their roles to constitute a significant contribution to the overall operation of the work organization,
perceived fair treatment in the workplace, and whose jobs had high job variety, had high levels of organizational commitment. The effects were all in the hypothesized direction. Such findings offered substantial support for hypothesis \( H_{3b} \) of the study. The effect of task significance, however, was found to vary by sex. That is, the ability to make significant contributions to the operation of the work organization (task significance) influenced women's commitment more favorably than men's. In addition, participation in decision making had a significant positive effect on organizational commitment for women only. The overall test produced an \( R^2 \) value of .396. The .005 change in \( R^2 \) value due to the inclusion of gender-reward interactions was not significant at the .050 or better level of significance (one-tailed test); \( F = 1.649 \) with 6 and 1144 degrees of freedom. The results suggested that all intrinsic rewards, except participation in decision making and task significance, operated similarly to influence organizational commitment for both male and female agricultural technicians.

**Extrinsic Rewards**

The presentation of regression results for the effects of extrinsic rewards on job satisfaction and organizational commitment is organized into the three subsections as follows:

**Organizational Extrinsic Rewards**

The regression results for the effects of organizational extrinsic rewards on satisfaction are presented in Table 10. Based on the table, three of the five rewards analyzed, that is, promotional opportunity, job security and career growth, substantially affected job satisfaction for both males and females. This indicates that both male and female agricultural technicians who perceived their within-organization chances for vertical occupational mobility to be good, who felt that they were guaranteed to hold their jobs for as long as they wished, and who considered their work organization to be providing them with opportunities to increase job-related knowledge and skills had higher levels of job satisfaction. All the effects were in the
Table 10. Regression Results for Effects of Organizational Extrinsic Rewards\(^a\)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Satisfaction (H(_{4a}))</th>
<th>Commitment (H(_{4b}))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>p-value(^b)</td>
</tr>
<tr>
<td><strong>Organizational Extrinsic Rewards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pay</td>
<td>.004</td>
<td>.443</td>
</tr>
<tr>
<td>Fringe benefits</td>
<td>-.027</td>
<td>.188</td>
</tr>
<tr>
<td>Promotional opportunity</td>
<td>.271</td>
<td>.000</td>
</tr>
<tr>
<td>Job security</td>
<td>.211</td>
<td>.000</td>
</tr>
<tr>
<td>Career growth</td>
<td>.262</td>
<td>.000</td>
</tr>
<tr>
<td>Female</td>
<td>.232</td>
<td>.082</td>
</tr>
<tr>
<td><strong>Gender-Reward Interactions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pay x Female</td>
<td>-.122</td>
<td>(.012)(^c)</td>
</tr>
<tr>
<td>Fringe benefits x Female</td>
<td>.019</td>
<td>.418</td>
</tr>
<tr>
<td>Promotional opportunity x Female</td>
<td>.058</td>
<td>.250</td>
</tr>
<tr>
<td>Job security x Female</td>
<td>-.306</td>
<td>.008</td>
</tr>
<tr>
<td>Career growth x Female</td>
<td>.017</td>
<td>.430</td>
</tr>
<tr>
<td><strong>R(^2) -value</strong></td>
<td>.358</td>
<td></td>
</tr>
<tr>
<td><strong>Change in R(^2) -value</strong></td>
<td>.006</td>
<td>.031</td>
</tr>
</tbody>
</table>

\(^a\) Standardized coefficients are reported.

\(^b\) All one-tailed.

\(^c\) ( ) Indicates that the effect was opposite to the predicted (hypothesized) direction.

predicted direction. The results provided substantial support for hypothesis H\(_{4a}\) of the study. Of the five gender-reward interactions analyzed, two were significant at the .050 or better level of significance (one-tailed test). Specifically, pay was found to have a negative effect on the job satisfaction of females only. This effect, however, was not in the hypothesized direction. Job security, on the other hand, had a more favorable effect on the satisfaction of men relative to women. The overall test produced an R\(^2\) value of .358. The .006 change in R\(^2\) value due to the inclusion of gender-reward interactions was significant (p = .031; F = 2.106 with 5 and 1158 degrees of freedom).
The results for organizational commitment showed that three of the five organizational extrinsic rewards analyzed had significant affects for both men and women at the .050 or better level of significance (one-tailed test). These were promotional opportunity, job security and career growth. This indicated that agricultural technicians who perceived their jobs to be offering them good chances for vertical mobility, who felt that they were guaranteed to hold their jobs for as long as they wished, and considered their work organization to be providing them with opportunities to increase work-related knowledge and skills had higher levels of organizational commitment. These findings provided substantial support for hypothesis H4b of the study. In addition, while gender itself did not have a significant effect, the gender-reward interactions for pay, job security, and career growth were significant at the .050 or better level of significance. Pay was found to affect commitment for women only but its effect was in the unexpected (negative) direction. On the other hand, the effect of job security was more favorable for men than for women while that of career growth was stronger for women than for men. The overall test produced an $R^2$ value of .302. The change in $R^2$ value due to the inclusion of gender-reward interactions was .016 and was significant ($p = .000; F = 5.328$ with 5 and 1158 degrees of freedom).

(In)convenience Extrinsic Rewards

Table 11 presents the regression results for the effects of (in)convenience extrinsic rewards on job satisfaction and organizational commitment. Based on the table, all three (in)convenience extrinsic rewards analyzed had significant effects on job satisfaction for both males and females. Agricultural technicians who were overworked, faced role ambiguity, and got conflicting job requests from supervisors and co-workers were shown to be less satisfied with their jobs. The effects were all in the hypothesized direction. The effect of gender was not significant. Also, none of the interaction terms analyzed for this category of rewards was significant. This suggests that (in)convenience extrinsic rewards similarly affected job
Table 11. Regression Results for Effects of (In)convenience Extrinsic Rewards

<table>
<thead>
<tr>
<th>Variables</th>
<th>Satisfaction (H5a)</th>
<th>Commitment (H5b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In)convenience Extrinsic Rewards</td>
<td>Beta</td>
<td>p-value</td>
</tr>
<tr>
<td>Role overload</td>
<td>-.098</td>
<td>.002</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>-.247</td>
<td>.000</td>
</tr>
<tr>
<td>Role conflict</td>
<td>-.168</td>
<td>.000</td>
</tr>
<tr>
<td>Female</td>
<td>-.030</td>
<td>.398</td>
</tr>
<tr>
<td>Gender-Reward Interactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role overload x Female</td>
<td>.061</td>
<td>.214</td>
</tr>
<tr>
<td>Role ambiguity x Female</td>
<td>-.081</td>
<td>.152</td>
</tr>
<tr>
<td>Role conflict x Female</td>
<td>-.039</td>
<td>.337</td>
</tr>
<tr>
<td>R² -value</td>
<td>.147</td>
<td></td>
</tr>
<tr>
<td>Change in R² -value</td>
<td>.002</td>
<td>.270</td>
</tr>
</tbody>
</table>

a Standardized coefficients are reported.
b All one-tailed.

satisfaction for men and women. The results provided strong support for hypothesis H5a of the study. The overall test produced an R² value of .147. The .002 change in R² value due to the inclusion of gender-reward interactions was not significant at the .050 or better level of significance (F = .722 with 3 and 1177 degrees of freedom).

For organizational commitment, the results indicated that all three (in)convenience extrinsic rewards analyzed had significant (negative) effects for both men and women. This means that agricultural technicians who considered their tasks to be overwhelming (role overload), who were not adequately informed about how to perform their tasks (role ambiguity), and received conflicting job requests from supervisors and co-workers (role conflict) were less committed to their work organization. The gender effect was not significant. These findings provided strong support for hypothesis H5b of the study. The effects of two of the rewards, however, were found to differ by sex. While role overload was shown to have a higher effect on women's commitment, role ambiguity was found to affect
men's commitment more than women's. The overall test produced an $R^2$ value of .177. The change in $R^2$ value due to the inclusion of gender-reward interactions was .014 and was significant ($p = .000; F = 6.739$ with 3 and 1177 degrees of freedom).

Social Extrinsic Rewards

Table 12 presents the regression results for the effects of social extrinsic rewards on job satisfaction and organizational commitment. As evident from the table, all three rewards analyzed viz, supervisory support, co-worker support, and work group cohesion, had significant effects on job satisfaction for both men and women. This means that agricultural technicians whose supervisors and co-workers were friendly, helpful and supportive in job related matters, and who perceived their work group to be cohesive had higher levels of job satisfaction. These results strongly supported hypothesis $H_{6a}$ of the study. The effects of gender and the gender-reward interactions were not significant. The overall test realized an $R^2$ value of .249. The .001 change in $R^2$ value due to the inclusion of the gender-reward interaction was not significant ($F = .516$ with 3 and 1178 degrees of freedom).

For organizational commitment, all three social extrinsic rewards were found to have substantial effects for both men and women. Agricultural technicians who perceived both their supervisors and co-workers to be friendly and helpful in job related matters, and who considered their work group to be cohesive had higher levels of organizational commitment. Such findings strongly supported hypothesis $H_{6b}$ of the study. In addition, being female was found to increase organizational commitment. Finally, the results showed that none of the gender-reward interactions was significant at the .050 or better level of significance. This means that all social extrinsic rewards operated similarly to influence organizational commitment for both males and females. The overall test yielded an $R^2$ value of .266. The .003 change in $R^2$ value due to the incorporation of gender-reward interactions in the analysis was not significant ($F = 1.529$ with 3 and 1178 degrees of freedom).
In sum, the results of the regression analyses for the effects of rewards on job satisfaction showed that 14 out of a total of 17 job rewards analyzed had significant effects, in the hypothesized direction, for both male and female agricultural technicians in Kenya. These included five out of six intrinsic rewards, three of five organizational extrinsic rewards, three of three (in)convenience extrinsic rewards, and three out of three social extrinsic rewards. With the exception of job security (an organizational extrinsic reward), whose effect varied by gender, all the above rewards operated similarly to influence satisfaction for both males and females. The effect of job security was lower for females. The 14 rewards that significantly affected job satisfaction were also found to substantially influence organizational commitment for both men and women. However, five of these 14 rewards were found to operate differently to influence commitment for men and women. While task significance (an intrinsic reward), career growth (an organizational extrinsic reward), and role overload (a

Table 12. Regression Results for Effects of Social Extrinsic Rewards

<table>
<thead>
<tr>
<th>Variables</th>
<th>Satisfaction (H6a)</th>
<th>Commitment (H6b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>p-value</td>
</tr>
<tr>
<td><strong>Social extrinsic Rewards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory support</td>
<td>.321</td>
<td>.000</td>
</tr>
<tr>
<td>Co-worker support</td>
<td>.185</td>
<td>.000</td>
</tr>
<tr>
<td>Work group cohesion</td>
<td>.155</td>
<td>.000</td>
</tr>
<tr>
<td>Female</td>
<td>.099</td>
<td>.264</td>
</tr>
<tr>
<td><strong>Gender-Reward Interactions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory support x Female</td>
<td>.044</td>
<td>.374</td>
</tr>
<tr>
<td>Co-worker support x Female</td>
<td>-.057</td>
<td>.334</td>
</tr>
<tr>
<td>Work group cohesion x Female</td>
<td>-.132</td>
<td>.156</td>
</tr>
<tr>
<td>R² -value</td>
<td>.249</td>
<td></td>
</tr>
<tr>
<td>Change in R² -value</td>
<td>.001</td>
<td>.336</td>
</tr>
</tbody>
</table>

a Standardized coefficients are reported.

b All one-tailed.
(in)convenience extrinsic reward) influenced women's organizational commitment more than men's, the effects of job security (an organizational extrinsic reward) and role ambiguity (a (in)convenience extrinsic reward) were greater for men than for women. In addition, participation in decision making (an intrinsic reward) and pay (an organizational extrinsic rewards) were found to significantly affect organizational commitment for women only. The effect of pay, however, was not in the expected direction; it was negative rather than positive.

**Gender Differences in Values Attached to Job Rewards (H16a-16e)**

The results for the separate regression models for the effects of various categories of rewards presented earlier showed that, for job satisfaction, two out of 17 interaction terms analyzed were significant at the .050 or better level of significant (one-tailed test). For organizational commitment, on the other hand, seven out of 17 interaction terms analyzed were significant. Although the significant interaction terms were relatively few, the results suggested that some of the rewards studied operated differently to affect satisfaction and commitment for men and women. This, in turn, suggested that, consistent with the differential job values argument that has been thought to be one of possible explanations of the paradox of the contented female employee, some of the rewards are valued differently by males and females. Finding more interaction terms to be significant for organizational commitment than for job satisfaction appeared to be consistent with the earlier finding that, while no gender paradox existed in job satisfaction, one did exist in organizational commitment. In this section, I explore the differences that may exist in the importance male and female agricultural technicians in Kenya attached to various intrinsic and extrinsic rewards. The major objective here is to test whether different categories of rewards are valued differently by men and women.

To measure the importance agricultural technicians attached to job rewards, respondents were provided with a list of different kinds of opportunities (rewards) which a job
might offer. They were asked to rate the importance they attached to each opportunity regardless of whether or not it was provided by their current job using the following five point scale: "Of great importance, Quite important, Of some importance, Of very little importance, and Not important at all". For the purpose of this study, the responses were scored from 1 to 5 with a score of 5 representing "of great importance" and a score of 1 indicating "not important at all". Mean scores were computed for each gender group and the t-test was utilized to check for group mean differences. Table 13 presents the results of the t-tests.

Based on the Table 13, both men and women, generally speaking, appeared to value highly most of the rewards analyzed. Mean scores for the sexes were 4.0 or better for virtually all rewards; 5.0 was the highest possible score. In addition, a rank ordering of rewards for men and women, based on mean values attached to each reward, showed similar patterns for both gender groups. Overall, both men and women valued organizational extrinsic rewards most. The organizational extrinsic rewards, career growth, job security, pay, and promotional opportunity ranked first, second, third, and fourth, respectively, in importance for both men and women. Whereas the intrinsic reward, distributive justice, placed fifth, the organizational extrinsic reward, fringe benefits ranked sixth in importance for both groups. On the other hand, work group cohesion (a social extrinsic reward) was the least valued reward for both men and women followed by job variety (an intrinsic reward). However, despite the relatively high values placed on most rewards by both men and women, the gender groups differently significantly in the values attached to some of these rewards. These differences are explored below following the different categories of rewards employed in this study starting with intrinsic rewards.

**Intrinsic Rewards**

Based on table 13, overall, both men and women considered intrinsic rewards to be "quite important" or better. The mean ratings for all intrinsic rewards, save job variety, were
Table 13. Male and Female Means for Importance Attached to Job Rewards

<table>
<thead>
<tr>
<th>Variables</th>
<th>Males</th>
<th>Females</th>
<th>t-value</th>
<th>p-value^</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std.Dev.</td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td><strong>Intrinsic Rewards (H₁₆a)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>4.25</td>
<td>0.88</td>
<td>4.19</td>
<td>0.97</td>
</tr>
<tr>
<td>Decision making</td>
<td>4.04</td>
<td>0.99</td>
<td>4.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Task Significance</td>
<td>4.36</td>
<td>0.78</td>
<td>4.27</td>
<td>0.76</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>4.48</td>
<td>0.82</td>
<td>4.56</td>
<td>0.72</td>
</tr>
<tr>
<td>Job variety</td>
<td>3.62</td>
<td>1.04</td>
<td>3.87</td>
<td>1.01</td>
</tr>
<tr>
<td><strong>Organizational Extrinsic Rewards (H₁₆b)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pay</td>
<td>4.61</td>
<td>0.78</td>
<td>4.73</td>
<td>0.52</td>
</tr>
<tr>
<td>Fringe benefits</td>
<td>4.38</td>
<td>0.90</td>
<td>4.48</td>
<td>0.81</td>
</tr>
<tr>
<td>Promotional opportunity</td>
<td>4.55</td>
<td>0.78</td>
<td>4.69</td>
<td>0.65</td>
</tr>
<tr>
<td>Job security</td>
<td>4.63</td>
<td>0.71</td>
<td>4.76</td>
<td>0.53</td>
</tr>
<tr>
<td>Career growth</td>
<td>4.67</td>
<td>0.68</td>
<td>4.77</td>
<td>0.47</td>
</tr>
<tr>
<td><strong>Social Extrinsic Rewards (H₁₆c)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory support</td>
<td>4.23</td>
<td>0.93</td>
<td>4.28</td>
<td>0.89</td>
</tr>
<tr>
<td>Co-worker support</td>
<td>3.96</td>
<td>0.99</td>
<td>4.04</td>
<td>1.01</td>
</tr>
<tr>
<td>Work group cohesion</td>
<td>3.14</td>
<td>1.13</td>
<td>2.95</td>
<td>1.27</td>
</tr>
</tbody>
</table>

^ All one-tailed.

( ) Opposite to the predicted direction

4.0 and better for both men and women. Results for t-test, utilizing a .10 or better level of significance (one-tailed test), indicated that men and women valued autonomy, and participation in decision making equally. However, mean scores showed men to be slightly higher than women in both rewards by .06 and .04 points respectively. The gender groups were found to significantly differ in how much they valued task significance, distributive justice, and job variety. While men valued task significance more than women by .09 points, women valued distributive justice and job variety more than men by .08 and .25 points respectively. These results did not provide convincing support for hypothesis H₁₆a.
Organizational Extrinsic Rewards

Results for the importance attached to organizational extrinsic rewards showed that these rewards were very important to both men and women. For both sexes, mean ratings of virtually all organizational extrinsic rewards were higher than 4.5 points. However, men and women were significantly different in all five organizational extrinsic rewards with women, contrary to hypothesis H16b of the study, attaching substantially higher values to all five rewards than men did. Women's mean scores were higher than men's by .12, .10, .14, .13, and .10 points for pay, fringe benefits, promotional opportunity, job security, and career growth respectively. Rather than support hypothesis H16b of the study that women value organizational extrinsic rewards less than their male counterparts, the results suggested the converse to be true for agricultural technicians in Kenya.

Social Extrinsic Rewards

From Table 13, it is evident that, although women's mean scores on the importance attached to supervisory support and co-worker support were higher than men's by .05 points for both variables, the mean differences were not significant. Significant differences, however, emerged in the importance attached by the sexes to work group cohesion. Contrary to expectations, men valued a cohesive work group more than women did. These results failed to provide support for this study's hypothesis H16c.

Construction of Path Models for Males and Females

Earlier it was indicated that those rewards that would be found to significantly affect job satisfaction and organization commitment (H3a through H6b) would be used to construct path models for each gender group. To achieve this objective, separate regression analysis was performed for each gender group utilizing all intrinsic and extrinsic rewards, that significantly impacted on its satisfaction and commitment, jointly with nonreward variables.
Table 14 presents the results of the separate analyses for males and females. A detailed presentation of the results is undertaken below starting with those for the male subsample.

Path Model for Male Agricultural Technicians

The results for the male subsample (see table 14) showed that 10 out of the 14 rewards analyzed had significant net effects on job satisfaction at the .050 or better level of significance (one-tailed test). These included five of five intrinsic rewards (viz, autonomy, upward communication, task significance, distributive justice, and job variety); three of three organizational extrinsic rewards (namely, promotional opportunity, job security and career growth); one of the three (in)convenience extrinsic rewards (that is, role ambiguity); and one of the three social extrinsic rewards (namely, co-worker support). All the effects were in the hypothesized direction. The intrinsic reward, upward communication, ranked first among all the rewards in terms of predictive power followed by another intrinsic reward, job variety. The organizational extrinsic rewards, job security and career growth tied for the third place followed by the organizational extrinsic reward, promotional opportunity. Next came co-worker support (a social extrinsic reward), task significance (an intrinsic reward), distributive justice (an intrinsic reward), role ambiguity (a (in)convenience extrinsic reward), and autonomy (an intrinsic reward). In addition, five out of 10 nonreward variables analyzed were found to have significant net effects on job satisfaction for males at the .050 or better level of significance (one-tailed test). While firm-specific training and tenure increased job satisfaction, negative affectivity, external opportunities, and being in the public sector significantly lowered job satisfaction for male agricultural technicians. All these effects were in the expected direction. Overall, the test produced an explained variance of about 60.5 percent.

For organizational commitment, on the other hand, the results showed that seven out of 14 rewards and five out 10 nonreward variables analyzed, plus the intervening variable, job
Table 14. Regression Results for Effects of Rewards and Nonrewards for Males and Females

<table>
<thead>
<tr>
<th>Variables</th>
<th>Satisfaction</th>
<th>Commitment</th>
<th>Satisfaction</th>
<th>Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td></td>
<td>Beta</td>
<td>p-value</td>
<td>Beta</td>
<td>p-value</td>
</tr>
<tr>
<td></td>
<td>Beta</td>
<td>p-value</td>
<td>Beta</td>
<td>p-value</td>
</tr>
<tr>
<td><strong>Intrinsic Rewards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>.070</td>
<td>.007</td>
<td>.000</td>
<td>.494</td>
</tr>
<tr>
<td>Decision making</td>
<td>---</td>
<td>---</td>
<td>.066</td>
<td>.115</td>
</tr>
<tr>
<td>Upward communication</td>
<td>.142</td>
<td>.000</td>
<td>.092</td>
<td>.018</td>
</tr>
<tr>
<td>Task significance</td>
<td>.101</td>
<td>.000</td>
<td>.096</td>
<td>.028</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>.092</td>
<td>.002</td>
<td>.254</td>
<td>.000</td>
</tr>
<tr>
<td>Job variety</td>
<td>.129</td>
<td>.000</td>
<td>.273</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Organizational Extrinsic Rewards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pay</td>
<td>---</td>
<td>---</td>
<td>.021</td>
<td>.404</td>
</tr>
<tr>
<td>Promotional opportunity</td>
<td>.106</td>
<td>.000</td>
<td>.163</td>
<td>.001</td>
</tr>
<tr>
<td>Job security</td>
<td>.119</td>
<td>.000</td>
<td>.019</td>
<td>.340</td>
</tr>
<tr>
<td>Career growth</td>
<td>.119</td>
<td>.000</td>
<td>.030</td>
<td>.286</td>
</tr>
<tr>
<td><strong>(In)convenience Extrinsic Rewards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role overload</td>
<td>.008</td>
<td>.380</td>
<td>.002</td>
<td>.474</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>-.085</td>
<td>.000</td>
<td>-.096</td>
<td>.023</td>
</tr>
<tr>
<td>Role conflict</td>
<td>-.015</td>
<td>.278</td>
<td>-.026</td>
<td>.287</td>
</tr>
</tbody>
</table>

\(^a\) Standardized coefficients are reported.
\(^b\) All one-tailed.
\(^c\) ( ) Indicates that the effect was opposite to the predicted (hypothesized) direction.
Table 14. (continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Satisfaction Beta</th>
<th>Males p-value(^b)</th>
<th>Commitment Beta</th>
<th>Males p-value(^b)</th>
<th>Satisfaction Beta</th>
<th>Females p-value(^b)</th>
<th>Commitment Beta</th>
<th>Females p-value(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Extrinsic Rewards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory support</td>
<td>.034</td>
<td>.133</td>
<td>.121</td>
<td>.000</td>
<td>.138</td>
<td>.004</td>
<td>.074</td>
<td>.049</td>
</tr>
<tr>
<td>Co-worker support</td>
<td>.103</td>
<td>.000</td>
<td>.071</td>
<td>.004</td>
<td>.085</td>
<td>.041</td>
<td>-.050</td>
<td>.121</td>
</tr>
<tr>
<td>Work group cohesion</td>
<td>-.042</td>
<td>.064</td>
<td>.014</td>
<td>.312</td>
<td>-.022</td>
<td>.320</td>
<td>.076</td>
<td>.030</td>
</tr>
<tr>
<td>Nonreward Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm-specific training</td>
<td>.082</td>
<td>.001</td>
<td>.001</td>
<td>.491</td>
<td>.074</td>
<td>.049</td>
<td>-.012</td>
<td>.378</td>
</tr>
<tr>
<td>Work motivation</td>
<td>.040</td>
<td>.056</td>
<td>.080</td>
<td>.001</td>
<td>.007</td>
<td>.438</td>
<td>.066</td>
<td>.036</td>
</tr>
<tr>
<td>Positive affectivity</td>
<td>.010</td>
<td>.374</td>
<td>.007</td>
<td>.411</td>
<td>.020</td>
<td>.357</td>
<td>-.085</td>
<td>(.035)(^c)</td>
</tr>
<tr>
<td>Negative affectivity</td>
<td>-.151</td>
<td>.000</td>
<td>-.080</td>
<td>.007</td>
<td>-.082</td>
<td>.064</td>
<td>-.091</td>
<td>.026</td>
</tr>
<tr>
<td>Financial security</td>
<td>.018</td>
<td>.240</td>
<td>-.048</td>
<td>.028</td>
<td>-.025</td>
<td>.290</td>
<td>-.133</td>
<td>.000</td>
</tr>
<tr>
<td>External opportunities</td>
<td>-.091</td>
<td>.000</td>
<td>-.026</td>
<td>.162</td>
<td>-.052</td>
<td>.120</td>
<td>-.088</td>
<td>.011</td>
</tr>
<tr>
<td>Kinship responsibility</td>
<td>.034</td>
<td>.312</td>
<td>.057</td>
<td>.012</td>
<td>.000</td>
<td>.498</td>
<td>.102</td>
<td>.002</td>
</tr>
<tr>
<td>Education</td>
<td>-.015</td>
<td>.312</td>
<td>.004</td>
<td>.450</td>
<td>-.034</td>
<td>.313</td>
<td>.034</td>
<td>.287</td>
</tr>
<tr>
<td>Tenure</td>
<td>.061</td>
<td>.016</td>
<td>.059</td>
<td>.020</td>
<td>.021</td>
<td>.320</td>
<td>-.041</td>
<td>.144</td>
</tr>
<tr>
<td>Public Sector</td>
<td>-.149</td>
<td>.000</td>
<td>-.020</td>
<td>.262</td>
<td>.004</td>
<td>.475</td>
<td>.034</td>
<td>.254</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>---</td>
<td>---</td>
<td>.389</td>
<td>.000</td>
<td>---</td>
<td>---</td>
<td>.336</td>
<td>.000</td>
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<tr>
<td>R(^2) -value</td>
<td>.605</td>
<td>.597</td>
<td>.534</td>
<td>.657</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Standardized coefficients are reported.
\(^b\) All one-tailed.
\(^c\) ( ) Indicates that the effect was opposite to the predicted (hypothesized) direction.
satisfaction, had significant net effects for male agricultural technicians. The seven rewards that were found to have significant net effects included two of the five intrinsic rewards (namely, upward communication and task significance); two of three organizational extrinsic rewards (viz, promotional opportunity and job security); one of three (in)convenience extrinsic rewards (that is, role ambiguity); and two of three social extrinsic rewards (namely, supervisory support and co-worker support). The effects were all in the hypothesized direction. Upward communication (an intrinsic reward) ranked highest in terms of predictive power followed by supervisory support (a social extrinsic reward), task significance (an intrinsic reward), co-worker support (a social extrinsic reward), role ambiguity (a (in)convenience extrinsic reward), promotional opportunity (an organizational extrinsic reward), and job security (an organizational extrinsic reward). The nonreward variables that had significant effects on commitment for males included work motivation, negative affectivity, financial security, kinship responsibility, and tenure. While work motivation, kinship responsibility, and tenure increased commitment for male agricultural technicians, negative affectivity and financial security lowered it. These effects were all in the hypothesized direction. The overall test produced an explained variance of about 59.7 percent. From the test, the path model depicted in figure 1 emerged for male agricultural technicians.

Path Model for Female Agricultural Technicians

Based on Table 14, seven of 14 (intrinsic and extrinsic) rewards and one of 10 nonreward variables analyzed had significant net effects on job satisfaction for female agricultural technicians. The significant rewards included three of five intrinsic rewards (that is, task significance, distributive justice, and job variety); one of three organizational extrinsic rewards (viz, promotional opportunity); one of three (in)convenience extrinsic rewards (namely, role ambiguity); and two of three social extrinsic rewards (that is, supervisory
Figure 1: Proposed Path Model of Satisfaction and Commitment for Males
support and co-worker support). Only one nonreward, firm-specific training, was significant. Of the significant rewards, job variety (an intrinsic reward) had the highest predictive power followed by promotional opportunity (an organizational extrinsic reward), supervisory support (a social extrinsic reward), role ambiguity (an (in)convenience extrinsic reward), distributive justice, task significance (intrinsic rewards), and co-worker support (a social extrinsic reward). All effects were in the expected direction. The overall test yielded an explained variance in job satisfaction of about 53.4 percent.

The results also showed that seven of 16 rewards, six of 10 nonreward variables, and the intervening variable, job satisfaction, had significant net effects on organizational commitment. The significant rewards included two of six intrinsic rewards (namely, participation in decision making and task significance), two of three organizational extrinsic rewards (that is, promotional opportunity and career growth), one of three (in)convenience extrinsic rewards (viz, role ambiguity), and two of three social extrinsic rewards (namely, supervisory support and work group cohesion). The (in)convenience extrinsic reward, role ambiguity, ranked first in terms of predictive power followed by task significance (an intrinsic reward), career growth (an organizational extrinsic reward), promotional opportunity (an organizational extrinsic reward), work group cohesion (a social extrinsic reward), supervisory support (a social extrinsic reward), and participation in decision making (an intrinsic reward). The effects of all these rewards were significant in the expected direction. The significant nonreward variables, on the other hand, included work motivation, positive affectivity, negative affectivity, financial security, external opportunities, and kinship responsibility. All the effects, except for positive affectivity, were in the hypothesized direction. Overall, the test explained about 65.7 percent of the variance in organizational commitment for females. Based on these results, the path model depicted in figure 2 emerged for the female subsample analyzed in this study.
Participation in decision making
Task significance
Distributive justice
Job variety
Promotional opportunity
Career growth
Role ambiguity
Supervisory support
Co-worker support
Work group cohesion
Firm-specific training
Negative affectivity
Financial security
External opportunities
Kinship responsibility

Figure 2: Proposed Path Model of Satisfaction and Commitment for Females
CHAPTER VI
SUMMARY AND DISCUSSION

This chapter is organized into three sections. Section one summarizes the major findings of the study. A discussion of these findings is presented in the second section of the chapter. The final section presents the conclusions drawn from the research findings.

Summary of Major Findings

This section is divided into four sub-sections. Sub-section one summarizes the t-test results for workplace experiences for women relative to men and for the paradox of the happy female employee. The second sub-section, on the other hand, provides a summary of the results of the regression analyses to test for the differential effects of rewards on job satisfaction and organizational commitment for both men and women. Sub-section three summarizes the results of the t-test for mean differences in the importance attached to various rewards by males and females. Finally, sub-section four summarizes the results of the separate regression analyses for males and females.

Results for the Paradox of the Contented Female Worker

T-tests for mean differences in perceptions of workplace conditions revealed that female agricultural technicians were disadvantaged in the workplace relative to men. In terms of intrinsic rewards, women perceived their jobs to be significantly lower in autonomy, task significance, fairness (distributive justice), and job variety, relative to men's. Differences also existed in extrinsic rewards. Women earned significantly less than men and perceived less chances for promotion. They considered themselves to be more underworked and to have a higher level of role ambiguity than men. Finally, women perceived less support from both supervisors and co-workers, and considered their work group to be less cohesive. These
results offered strong support for hypothesis $H_1$ that, relative to men, women agricultural technicians perceive their jobs to have less (inferior) rewards.

In addition, the t-test results showed that there existed no job satisfaction paradox for agricultural technicians in Kenya. Rather, it was found that women were significantly less satisfied with their jobs than men were. This is not consistent with the previous literature on the paradox. Although the results suggested that there existed a paradox in organizational commitment, mean differences showed a tendency toward a rejection of such a paradox. That is, men were higher (though not statistically significant) in commitment than women. These results partially refuted hypothesis $H_2$ that, relative to men, women agricultural technicians are neither less satisfied with their jobs nor less committed to their work organization.

Regression Results for the Effects of Job Rewards

To summarize the results of the effects of rewards on job satisfaction and organizational commitment for both male and female agricultural technicians in Kenya, the performance of each category of rewards is examined separately beginning with intrinsic rewards.

Intrinsic Rewards

Five of the six intrinsic rewards analyzed, that is, autonomy, upward communication, task significance, distributive justice, and job variety, had significant effects on the job satisfaction for both men and women. Based on the standardized beta coefficients, upward communication had the highest effect followed by distributive justice, job variety, task significance, and then autonomy. These findings provided strong support for hypothesis $H_{3a}$ that greater intrinsic rewards will lead to higher levels in job satisfaction for both men and women. All rewards that significantly affected job satisfaction were found to operate similarly to influence job satisfaction for male and female agricultural technicians.
For organizational commitment, all five rewards that significantly affected satisfaction also significantly influenced commitment for both males and females. Again, upward communication had the greatest predictive power followed by task significance, distributive justice, job variety, and autonomy. The findings provided strong support for hypothesis $H_{3b}$ that greater intrinsic rewards lead to higher organizational commitment for both men and women. The effects of task significance, however, varied by gender, being higher for women than for men. In addition, the intrinsic reward, participation in decision making, was found to have significant positive effect on organizational commitment for women only.

Organizational Extrinsic Rewards

Three of five organizational extrinsic rewards analyzed significantly influenced job satisfaction for both men and women agricultural technicians in Kenya. These were promotional opportunity, job security, and career growth. Promotional opportunity had the greatest predictive power relative to other organizational extrinsic rewards followed by career growth and job security. These findings provided substantial support for hypothesis $H_{4a}$ that greater organizational extrinsic rewards will increase job satisfaction for both male and female agricultural technicians in Kenya. The effect of job security, however, differed by gender being higher for men than for women. Also, pay was found to lower job satisfaction for women only but this effect was not in the hypothesized direction.

For organizational commitment, promotional opportunity, job security, and career growth had significant effects for both men and women. Job security had the greatest predictive power followed by promotional opportunity and career growth. These findings provided substantial support for hypothesis $H_{4b}$ that greater organizational extrinsic rewards lead to higher organizational commitment for both men and women. The effect of job security and career growth, however, differed by gender group with job security having a higher effect for men than for women and the effect of career growth being greater for women than for
men. Finally, pay was found to lower job satisfaction for women only. This effect, however, was not in the hypothesized direction.

(In)convenience Extrinsic Rewards

All three (in)convenience rewards analyzed were found to have significant effects on job satisfaction and organizational commitment for both men and women. For both satisfaction and commitment, role ambiguity had the highest predictive power followed by role conflict and role overload. These results provided strong support for both hypotheses $H_{5a}$ and $H_{5b}$ that higher (in)convenience extrinsic job rewards will lower job satisfaction and organizational commitment, respectively, for both men and women. Although all three rewards were found to operate similarly to influence job satisfaction for both males and females, the effects of role overload and role ambiguity on commitment varied by gender. While role overload influenced women’s commitment more favorably than men’s, the effect of role ambiguity was higher for men than for women.

Social Extrinsic Rewards

The results showed that all three rewards analyzed had significant effects on job satisfaction and organizational commitment for both males and females. Based on beta values, for both satisfaction and commitment, supervisory support had the greatest predictive power followed by co-worker support, and work group cohesion. The above results provide substantial support for hypotheses $H_{6a}$ and $H_{6b}$ of the study that higher social extrinsic job rewards will increase job satisfaction and organizational commitment, respectively, for both men and women. All three rewards were found to operate similarly to influence job satisfaction and organizational commitment for both men and women.
T-test Results for Importance Attached to Rewards

Overall, mean scores for the importance attached to job rewards indicated that most job rewards were highly valued by both male and female agricultural technicians in Kenya. In a scale of 1 to 5, with a 5 indicating that a reward was "of great importance" to the employee, mean scores for men were 4 points and higher in all rewards except job variety (mean = 3.62), co-worker support (mean = 3.96), and work group cohesion (mean = 3.14). Women, on the other hand, averaged 4 points or higher in importance attached to all rewards except job variety (mean = 3.87) and work group cohesion (mean = 2.95). However, some significant differences were found in the values men and women attached to a considerable number of rewards. In terms of intrinsic rewards, for example, men valued task significance more than women but women valued distributive justice, and job variety more than men did. These findings did not provide convincing support for hypothesis H_{16a} that female agricultural technicians value intrinsic rewards less than their male counterparts do.

Concerning organizational extrinsic rewards, women were found to value all organizational extrinsic rewards more than men. This was contrary to hypothesis H_{16b} that female employees value organizational extrinsic rewards less than their male counterparts do. Finally, and contrary to hypothesis H_{16c} that female employees value social extrinsic rewards more than males do, no significant differences were found in the importance attached to supervisory support and co-worker support by men and women. The gender groups, however, differed significantly in terms of how much they valued work group cohesion, with men valuing it more than women.

Results of the Path Models Construction

In addition to testing hypotheses H_{3a} through H_{6b}, regression analysis was used to construct separate path models for male and female agricultural technicians. The results are summarized below starting with those for the male subsample.
Results for Male Agricultural Technicians

For the male subsample studied, 10 out of 14 (intrinsic and extrinsic) rewards analyzed emerged to be important factors that should be incorporated in a path model explaining job satisfaction for male agricultural technicians in Kenya. These included five intrinsic rewards (that is, autonomy, upward communication, task significance, distributive justice and, job variety); three organizational extrinsic rewards (viz, promotional opportunity, job security, and career growth); one (in)convenience extrinsic rewards (namely, role ambiguity); and one social extrinsic rewards (namely, co-worker support). The intrinsic reward, upward communication, had the greatest predictive power followed by job variety, job security, career growth, promotional opportunity, co-worker support, task significance, distributive justice, role ambiguity, and autonomy. In addition, five of the 10 nonreward variables analyzed (that is, firm-specific training, negative affectivity, external opportunities, tenure and the dummy variable for the public sector), significantly affected job satisfaction net of rewards. The effects for all rewards and nonreward variables were in the hypothesized direction. The overall test for job satisfaction realized an explained variance of about 60.5 percent.

On the other hand, seven of 14 rewards analyzed jointly with five of 10 nonreward variables plus the intervening variable, job satisfaction, were shown to be important determinants of organizational commitment for male agricultural technicians in Kenya. The seven significant rewards included two intrinsic rewards (upward communication and task significance), two organizational extrinsic rewards (promotional opportunity and job security), one (in)convenience extrinsic reward (that is, role ambiguity), and two social extrinsic rewards (namely, supervisory support and co-worker support). The intrinsic reward, upward communication, had the highest predictive power followed by supervisory support, task significance, co-worker support, role ambiguity, promotional opportunity and job security. The significant nonreward variables included work motivation, negative affectivity, financial security, kinship responsibility, and tenure. All significant effects were in the hypothesized
direction. The overall test explained about 59.7 percent of the variance in organizational commitment for males.

Results for Female Agricultural Technicians

For female agricultural technicians, seven of 15 (intrinsic and extrinsic) rewards analyzed were found to be important determinants of job satisfaction. These included the intrinsic rewards, task significance, distributive justice and, job variety; the organizational extrinsic reward, promotional opportunity; the (in)convenience extrinsic reward, role ambiguity; and the social extrinsic rewards co-worker support. Job variety had the greatest predictive power followed by promotional opportunity, supervisory support, distributive justice and role ambiguity, task significance, and co-worker support. Out of the 10 nonreward variables analyzed, only firm-specific training had a significant net effect on satisfaction. All significant effects were in the hypothesized direction. The overall test explained about 53.4 percent of the variance in job satisfaction for female agricultural technicians.

Seven of 16 (intrinsic and extrinsic) rewards analyzed emerged to be important determinants of organizational commitment for female agricultural technicians in Kenya. These included the intrinsic reward, participation in decision making and task significance; the organizational extrinsic rewards, promotional opportunity and career growth; the (in)convenience extrinsic reward, role ambiguity; and the social extrinsic rewards, supervisory support and workgroup cohesion. Overall, role ambiguity had the greatest predictive power followed by task significance, career growth, promotional opportunity, work group cohesion, supervisory support and participation in decision making. In addition, the nonreward variables, work motivation, positive affectivity, negative affectivity, financial security, external opportunities, kinship responsibility, and job satisfaction substantially impacted on organizational commitment net of rewards. Except for positive affectivity, all significant
effects were in the hypothesized direction. The model explained about 65.7 percent of the variance in organizational commitment for female agricultural technicians.

Discussion

This section is organized into three subsections. In subsection one I present an interpretative discussion of the degree to which the study hypotheses were supported. While subsection two discusses the implications of the study results for personnel management, the final subsection presents suggestions for future research.

The Degree of Support for the Study Hypotheses

This study sought to test for the relative influence of intrinsic and extrinsic rewards on job satisfaction and organizational commitment. More specifically, the study was an attempt to inject a gender component into the study of satisfaction and commitment in developing countries by testing for gender differences in the effects of workplace rewards on job satisfaction and organizational commitment. Before testing for the differential effects of job rewards on satisfaction and commitment, it was considered necessary for the study to first establish whether there existed significant differences in workplace experiences for men and women and whether these experiences produce similar or different levels of job satisfaction and organizational commitment for men and women. The basis for these two steps was the assumption that differential access to job rewards for men and women should lead to differences in the levels of job satisfaction and commitment. Should this not be the case, it would suggest that the job rewards operated differently to influence job satisfaction and organizational commitment for males and females. Finally, the study was designed to examine the differential values attached to job rewards by male and female agricultural technicians in Kenya. The discussion presented below revolves around the answers to these questions that were realized by the study as reflected through the results summarized earlier in this chapter.
Hypotheses $H_1$ and $H_2$

The existing empirical literature has consistently shown that work rewards for women are almost always worse relative to men's. Additionally, the literature on especially job satisfaction has shown women to be as satisfied, if not more satisfied, with their jobs as their male counterparts even when they perceive inferior work rewards relative to men. This constitutes what has come to be referred to as the paradox of the contented female employee. The results of this study lend strong support for hypothesis $H_1$ of the study that, relative to male employees, women agricultural technicians perceived their jobs to have inferior rewards. However, contrary to the existing literature on the paradox of the contented female worker, $H_2$, which stated that women agricultural technicians are neither less satisfied with their jobs nor less committed to their work organization was partially refuted. While women were significantly less satisfied with their jobs relative to men, no significant gender differences existed in the levels of organizational commitment. However, men were slightly higher in commitment than women. Logically, one is bound to ask: Why is there no paradox in satisfaction while the data moderately suggests the existence of a paradox in commitment in the Kenyan situation?

A combination of factors could be utilized to explain the existence of no paradox in satisfaction in the Kenyan situation. First, it could be argued that women agricultural technicians had significantly lower levels of satisfaction because they were comparing themselves with male agricultural technicians who had similar levels of education/training. This would be consistent with the proposition by the "own-gender referents" hypothesis (see e.g., Andrisani, 1978; Crosby, 1982; Glenn et. al., 1977; Hodson, 1989; Kessler and McRae, 1982; Zanna, Crosby, and Lowenstein, 1987) that, in labor markets where occupational sex segregation is low, like the one studied here, women compare themselves to men and are likely to experience lowered satisfaction in the wake of inferior workplace conditions (rewards). Second, relative to the West, no specific objective steps have been taken in
Kenya to reduce gender inequalities in the labor market. Although the Kenya government soon after independence (1963) adopted an ideology of African Socialism that was committed to ending the inequalities that existed among men and women in terms of unequal participation in development and unequal share of its rewards and opportunities (Republic of Kenya, 1965; Stichter, 1977), there exists no specific legislations (laws) to guarantee equal opportunities for men and women in the various spheres of work such as equal access to occupational training, equal pay, equal opportunities for advancement, and equality in working conditions. In Kenya there is no legal enforcement of gender inequalities. Seniority has been institutionalized as the basis for pay and promotions, especially in the public sector. But there exists no Office of Economic Opportunities, no Affirmative Action policy, and no Comparable Worth programs to provide the necessary legal framework for reducing gender inequalities. Consequently, it can be argued that, women in Kenya more readily construe the government to have accomplished very little in the way of reducing gender differences in the workplace.

A third factor that could be utilized to account for the lower levels in job satisfaction for female agricultural technicians relates to the considerable gains that Kenyan women have made in access to education, labor force participation, and pay during the last couple decades (Hughes and Mwiria, 1989). It is possible that these women, having been educated for employment in the formal sector, consider their workplace experiences not to match their expectations. This, in turn, may have translated into the lower levels of job satisfaction among women realized by this study.

It could be argued that the same factors enumerated above to account for the lower levels of job satisfaction among female agricultural technicians should also have produced less commitment for women relative to men. While this could be true, I do not consider the finding by this study that no significant differences in organizational commitment existed for men and women agricultural technicians to be very perplexing because of three reasons. First,
the existence of a paradox in organizational commitment has mainly been assumed by most previous studies. Such studies have emphasized job satisfaction and, upon finding a paradox in satisfaction, have tended to assume that one must also exist in organizational commitment. This has created the notion that the existence or nonexistence of a paradox in satisfaction implied the existence or nonexistence of a paradox in commitment. The results of this study suggested that the contrary could also be true. That is, the nonexistence of a paradox in satisfaction does not necessarily imply the same for commitment. However, as indicated earlier the existence of a paradox in commitment should not be overemphasized for the Kenyan sample because the tendency, based on mean differences, was toward a rejection of such a paradox. Women were slightly lower than men in commitment and a p-value of .136 (one-tailed test) was statistically not very meaningful for one to conclude that a paradox certainly existed.

Second, it is possible that women agricultural technicians in Kenya, though lower in job satisfaction than men were, did not differ significantly in organizational commitment relative to men because of the limited nature of the labor market within which they operated. That is, the lack of alternative employment opportunities for women makes them not to be any less committed than men even when they receive inferior rewards from their jobs. An examination of mean differences in perceived external opportunities (see Table 6 for the items used) showed that women perceived fewer opportunities than men did (t = 3.17, p = .001). While the mean for men was 2.40, that for women was 2.25. This is consistent with the existing evidence on cross-sectoral mobility for Kenya. Whereas no significant cross-sectoral mobility has been documented for both men and women in Kenyan labor markets (Hughes, 1986; Njenga, 1986), men have been shown to be more likely to experience cross-sectoral mobility, relative to women, by accepting positions of considerable responsibility (Njenga, 1986) especially in the private sector. This situation is far much worse for agricultural technicians for whom the government remains the main employer. Both male and female
agricultural technicians, for the most part, have to stick with either the public or the parastatal sector for an employer. Women's cross sectoral mobility chances are reduced even further by the fact that they will refuse to take up new positions which involve a change in residence due to family concerns and the assumption that the wife will move because of her husband's career but not vice versa (Butterfield, 1977).

The third factor that explains the lack of differences in the levels of organizational commitment among male and female agricultural technicians in the wake of dissimilar workplace experiences is related to the second. It pertains to the changing roles of women within the family in Kenya. Like in the West, women in Kenya are increasingly sharing the breadwinning role with men (Newland, 1980). That is, women now more than ever before work for necessity rather than just to supplement their husband's incomes. This creates a situation in which women have to keep permanent full time employment. But, as documented above, the considerable lack of alternative employment opportunities for women forces them to stick with their current employers. Hence, the comparable levels of commitment for men and women agricultural technicians. The strength of this argument increases further when viewed in light of the growing unemployment in Kenya for both technical and nontechnical personnel.

Hypotheses H3a to H6b

Overall, based on the results of the effects of job rewards on job satisfaction and organizational commitment and of the path models construction, it may be concluded that the exchange-based models of job satisfaction and organizational commitment received substantial support when applied to a less developed economy. This affirmed that models based in industrialized economies, in general, and the exchange-based models, in particular, can be applied successfully to less developed economies. The results for the separate regression analyses for the effect of job rewards on satisfaction and commitment, for example, provided
very strong support for hypotheses $H_{3a}$, $H_{3b}$, and $H_{5a}$ through $H_{6b}$. Relatively weaker, yet substantial, support was found for hypotheses $H_{4a}$ and $H_{4b}$. The high degree of support for the above hypotheses demonstrated that there is substantial ground for the successful application of exchange-based models of satisfaction and commitment to men and women employees in Kenya, in particular, and across nations with varying degrees of economic development, in general. The results that 14 out of 17 (intrinsic and extrinsic) rewards analyzed significantly impacted on satisfaction and commitment for both males and female agricultural technicians in Kenya illustrated that the same exchange-based determinants of satisfaction and commitment that have been applied to the industrialized nations of the West can be relied on to explain the same in less developed countries. For job satisfaction, the effects of virtually all these rewards was shown to be similar for both men and women. For commitment, however, some of the rewards operated differently for men and women. Participation in decision making, for example, only impacted on women's commitment. While task significance, career growth, and role overload had higher effects on women's commitment than on men's, job security and role ambiguity affected men's commitment more than women's. These findings are consistent with the earlier finding that, while no paradox existed in job satisfaction, one existed in commitment.

The results for the separate regression analyses for men and women provided additional support for the successful application of exchange-based models of satisfaction and commitment that have been developed in industrialized nations to less developed countries. Both the male and female models performed satisfactorily when viewed in terms of the number of variables that significantly impacted on satisfaction and commitment in the hypothesized direction and the amount of variance explained by each model. A substantial number of the rewards analyzed were important determinants of job satisfaction for male and female agricultural technicians in Kenya. For men, for example, 10 out of 14 rewards and five of 10 nonreward variables analyzed significantly impacted on job satisfaction while seven
of 14 rewards, five of 10 nonreward variables, and the intervening variable, job satisfaction, had significant net effects on commitment. The explained variances in satisfaction and commitment were 60.5% and 59.7% respectively. For females, on the other hand, seven of 15 rewards and one of 10 nonreward variables significantly impacted on job satisfaction while seven out of 16 rewards and five of 10 nonreward variables, plus the intervening variable job satisfaction, had significant net effects on commitment. The overall tests produced explained variances of 53.4% and 65.7% in satisfaction and commitment, respectively.

The satisfactory performance of the exchange-based models in this study testifies to my earlier argument (see Chapter II) that cultural differences should not be an issue in this study because the work culture in Kenya has been Westernized especially through formal education. In other words, Westernization has created a work culture in Kenya that is similar to that found in the industrialized nations and the same general processes that produce job satisfaction and organizational commitment for men and women in the industrialized nations must also be operating here.

Although the separate path models for men and women performed relatively well, there were certain noticeable differences in the men's and women's models that warrant some attention here. Whereas the results generally indicated that similar determinants explain variations in men's and women's job satisfaction and organizational commitment, the number of rewards that substantially impacted on job satisfaction was higher by three for the men's model relative to the women's. Also the intrinsic rewards, autonomy and upward communication, and the organizational extrinsic rewards, job security and career growth, only affected men's job satisfaction and not women's. On the other hand, the social extrinsic reward, supervisory support only affected women's job satisfaction. For organizational commitment, upward communication (an intrinsic reward), job security (an organizational extrinsic reward), and co-worker support (a social extrinsic reward) were significant for males only while participation in decision making (an intrinsic reward), career growth (an
organizational extrinsic reward), and work group cohesion (a social extrinsic reward) were
significant for women only.

Further, the relative strengths of the various rewards that emerged to be major
determinants of satisfaction and commitment differed for men and women. For males,
intrinsic and organizational extrinsic rewards were the most important determinants of
satisfaction. The top five rewards that affected job satisfaction ranked in order of importance,
include the intrinsic rewards, upward communication and job variety, and the organizational
extrinsic rewards, job security, career growth, and promotional opportunity. For women, on
the other hand, the five rewards with the greatest effects on job satisfaction were drawn from
all the categories of rewards studied. These, ranked in order of importance, included job
variety (an intrinsic reward), promotional opportunity (an organizational extrinsic reward),
supervisory support (a social extrinsic reward), role ambiguity (a (in)convemence extrinsic
reward), and distributive justice (an intrinsic reward).

**Hypotheses H16a to H16c**

No convincing support was found for hypotheses H16a to H16c of the study.

Generally speaking, the different categories of rewards were considered to be quite important
by both men and women agricultural technicians. Although men and women differed
significantly in the values attached to certain rewards, the clear patterns predicted by
hypotheses H16a to H16c never emerged. The tendency of men to lend higher importance to
intrinsic and organizational rewards while women attach more importance to affective values
(social rewards) that has been found in previous research carried out in industrialized nations
never emerged from this study. While the gender groups clearly valued all organizational
extrinsic rewards differently, the pattern was contrary to hypothesis H16b. Women valued all
organizational extrinsic rewards more than men did.
Two factors can be advanced to explain the lack of clear patterns in the types of rewards valued differently by male and female agricultural technicians in Kenya. First, this study, unlike most studies that have supported hypotheses $H_{16a}$ through $H_{16c}$ in the past, focused on males and females in the same occupation and with comparable levels of training. In principle, both groups are supposed to receive comparable rewards from their jobs. Assuming that employee's expectations are shaped by his/her level of education and/or training and by what he/she is likely to obtain in the employment situation, it can be argued that men and women in an integrated occupation who have comparable levels of training are likely to value the same rewards highly, though not necessarily equally. The finding that virtually all significant differences in job values for men and women were opposite to the predicted direction could be viewed as a reflection of women's perceptions that their jobs offered them inferior rewards relative to men's. That is, a feeling of relative deprivation among women inflated the values attached to these rewards.

Second, the existence of a seniority system with very clear terms of service that characterizes the agricultural technicians' labor market in Kenya may also account for the lack of very clear cut differences in the categories of rewards valued by male and female employees. This is especially true for organizational extrinsic rewards. In Kenya, terms of service are usually very explicit about these types of rewards and this, most probably, explains why organizational extrinsic rewards were ranked highest in importance by both male and female agricultural technicians. In addition, most of these rewards are easily quantifiable.

Practical Applications of the Study

Although this study was mainly undertaken for the purpose of developing theoretical knowledge, its results have some implications for personnel management. As indicated earlier (see Chapter I), identifying those important determinants of job satisfaction and commitment for male and female employees could be a pointer to the important areas in which management
can implement change to motivate workers. In particular, testing for differences in the factors that produce satisfaction and commitment among male and female employees is important because women have made significant inroads into the paid labor force. Therefore, the need arises for management to understand whether the same factors produce satisfaction and commitment for both sexes before any meaningful restructuring of the work environment can be undertaken. In this section I present some of the important implications of the study results for the management of agricultural technicians in Kenya. These, it should be noted, are general ideas that do not provide specific courses of action. The development of such courses of action should be the responsibility of an employment relations specialist/consultant.

Generally speaking, the results of this research indicated that both male and female agricultural technicians in Kenya were moderately satisfied with their jobs and moderately committed to their employing organizations. This suggests that there is need for employers to implement measures that would boost these employee orientations among agricultural technicians. Such a step is important in light of the fact that agricultural technicians are the critical employees in the agricultural sector. To initiate changes that would improve satisfaction and commitment, middle management should not only focus on those factors (rewards) that are important determinants of these employee orientations but also on the rewards that are highly valued by the gender groups.

Based on the findings of this research, overall, similar rewards are important determinants of job satisfaction and organizational commitment for both male and female agricultural technicians. In addition, males and females were found to value most workplace rewards highly. Jointly, such results imply that management can boost satisfaction and commitment for males and females by implementing similar changes. To illustrate, the intrinsic rewards, task significance, distributive justice, and job variety, were shown to be important determinants of job satisfaction for both male and female employees. This suggests the following: a) That employers should restructure the work environment so as to ensure
that the contribution of every employee counts in the overall functioning and survival of the organization. This would enable the employee to be involved in the organization in more meaningful ways and prevent him/her from feeling or believing that his/her contribution is a secondary (unimportant) one that the organization can survive without. b) That employers should offer adequate compensation to employees based on their contributions to the operations of the organization. This, for example, may be translated to mean more pay and better fringe benefits. c) That job restructuring should be undertaken to reduce monotony in job tasks.

Suggestions for Future Research

This study was an attempt to provide additional insight into the nature and sources of job satisfaction and organizational commitment for male and female employees in the less developed economies. Based on its findings, the following suggestions for future research are made. First, at the general level, because this study has demonstrated that exchange-based models of satisfaction and commitment can be applied successfully to labor markets in less developed countries, additional research is required in other developing countries to validate its findings. This is essential in light of the fact that labor markets do not operate similarly in all developing countries. Even within the African continent itself, there exist variations in the levels of economic development; political, social, and economic ideologies; the degree of integration of women in formal education and, consequently, in modern sector employment; and the role of women in society as determined by culture; among others. Such differences will, doubtlessly, produce variations in labor market experiences and outcomes for men and women. This means that exchange-based models of satisfaction and commitment may operate differently in such situations. Therefore, to considerably increase the general body of cross-national knowledge in this subject area, to strengthen the existing exchange-based arguments, and to assess the relative effects of the various groups of rewards on satisfaction and
commitment for both males and females in less developed economies, more studies must be carried out.

For continued study of Kenya, on the other hand, it would be desirable to test the generalizability of the present findings to a variety of occupations and work organizations. This requires the extension of the study to other well established occupational categories such as teachers, doctors, lawyers, and nurses and to work organizations in other economic sectors. By so doing, important comparative information that would allow for subgroup analysis to evaluate whether the relative influence of rewards on satisfaction and commitment could vary by occupational groupings or by type of work organization would be generated. Extending the study to the manufacturing sector, for example, would facilitate testing for differences between blue collar and white collar employees. This is important because most studies in the West have analyzed labor markets characterized by the blue collar-white collar dichotomy. It would be both useful and informative to test whether findings by such studies obtain for Kenya when relatively similar job settings are studied.

A number of nonrewards were found to be important in understanding job satisfaction and organizational commitment among agricultural technicians in Kenya. This suggested that the factors that affect job satisfaction and commitment for both men and women transcend the 17 rewards analyzed. The study should be extended to include gender interaction terms for these nonreward variables to assess whether some of them may also operate differently to influence job satisfaction and organizational commitment for men and women. A starting point would be to reanalyze the sample studied here. However, other samples of men and women in other organizational set-ups and labor markets would provide useful information. Additionally, in light of the results that almost half the rewards analyzed did not significantly impact on organizational commitment for both the male and female models, it would be useful to decompose the effects of rewards and nonreward variables on commitment into both direct and indirect effects. This will guard against the elimination of rewards and nonreward
variables from path models like the ones proposed in this study for males and females while they could be having indirect rather than direct effects.

Finally, this study found male and female agricultural technicians to be both moderately satisfied with their jobs and committed to their work organizations. The data analyzed here were gathered during a time when the World Bank and the International Monetary Fund were pressing the Kenya government to implement measures that would cut down the size of the public and parastatal sectors. In light of this fact, it would be informative to replicate the study on labor markets that are not faced with downsizing to ascertain whether the trends obtained here are general ones or were aftermaths of the process of downsizing. Future research could also examine individual items included in the scales used to capture satisfaction and commitment. This might provide insights not uncovered when one uses scales. In addition, it was found that women valued the organizational extrinsic reward, job security, more than men did and that both men and women perceived virtually similar levels of job security in their jobs. However, job security was an important determinant of satisfaction and commitment for men and not for women. This may suggest that downsizing impacts men and women differently. That is, the possibility of being unemployed translates differently for men and women, especially in a society where males still largely carry the breadwinner role. Focusing on employment relationships in which downsizing is not an issue would shed more light on this trend.

Conclusion

The primary objective of this study was to provide additional insight into the nature and sources of job satisfaction and organizational commitment in the less developed economies. To achieve this objective, the study examined the relative effects of workplace rewards on satisfaction and commitment for male and female agricultural technicians in Kenya. The analysis, however, commenced with an assessment of gender differences in
workplace treatment and of the existence/nonexistence of a paradox in job satisfaction and commitment. Several conclusions can be reached based on the results of the study. First, though some previous research has suggested the existence of a gender paradox in job satisfaction (and commitment), the results of this study suggest otherwise. It may be concluded that the paradox could be a time-drive phenomenon that no longer exists due to transformations that have taken place in the labor force and/or labor market. For instance, more women are now in the paid labor force and labor markets are becoming less segregated. This, in turn, makes it possible for women to use men as referents. Indeed, the sample analyzed in this study was drawn from a relatively integrated labor market. This perhaps explains why no paradox was found. In addition, the existing research that supports the paradox is limited. In light of the fact that not every study gets published, I have no way of knowing whether there exists other unpublished studies that may have found results that are similar to those realized by this research.

Second, it is my conviction that the results of this research constitute a significant contribution to the literature on especially gender differences in satisfaction and commitment in general and cross-culturally. An important insight gained from the present study is that men and women in developing countries may not differ from their counterparts in the industrialized nations in their sources of job satisfaction and organizational commitment. The analysis of gender differences in the determination of job satisfaction and organizational commitment found only minor differences in the way intrinsic and extrinsic rewards operate to influence satisfaction and commitment for men and women. This is a valuable addition to the currently very limited or nonexistent cross-national comparative knowledge. It demonstrated that exchange-based arguments that have been developed based on studies carried out in industrialized countries can be applied successfully to explain job satisfaction and commitment in less developed economies. This may, in turn, be construed to indicate that job satisfaction and organizational commitment are not culture-specific concepts requiring different
explanations. Rather, they are similar across settings and identical theoretical arguments can be utilized to explain what influences/affects them across cultures. However, this should not be taken to imply that the particular effects of different categories of rewards on satisfaction and commitment is similar across organizations, societies, or economic settings.

In addition, this study provides evidence that women in developing countries are confronted with disadvantages similar to those faced by their counterparts in industrialized economies. That is, women workers in developing countries, like those in the industrialized West, have to put up with inferior workplace conditions. However, unlike in the West where the differential treatment of men and women employees has been found not to reduce women's levels of satisfaction and commitment relative to men's, in Kenya such treatment was found to lower women's job satisfaction significantly relative to men's. Also, the study demonstrated that, for the most part, the effects of rewards on job satisfaction is similar for both men and women. Differential influences, however, do exist for organizational commitment. Finally, results from the study demonstrated that both male and female agricultural technicians in Kenya valued most workplace rewards highly. However, there existed some significant differences in the values attached to some rewards by men and women. But the clear categorical patterns in the rewards that are valued differently by men and women that has been found by certain studies done in industrialized nations did not emerge from this study. For both men and women, organizational extrinsic rewards were the most valued.
APPENDIX A
EXPLORATORY FACTOR ANALYSES

Results are grouped into three separate broad groups of intrinsic rewards, extrinsic rewards and non rewards. The results, however, came from simultaneous estimation with all variables included. The empty cells represent factor loadings of less than .30.

Table 15. Exploratory Factor Analysis for Intrinsic Rewards

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1 = Autonomy  2 = Participation in decision making  3 = Upward communication
4 = Task significance  5 = Distributive justice  6 = Job variety
Table 16. Exploratory Factor Analysis for Extrinsic Rewards

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1 = Promotional opportunity  2 = Job security  3 = Career growth
4 = Role overload  5 = Role ambiguity  6 = Role conflict
7 = Supervisory support  8 = Coworker support  9 = Work group cohesion
Table 17. Exploratory Factor Analysis for Nonreward Variables

<table>
<thead>
<tr>
<th>Item</th>
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<td>5.3</td>
<td></td>
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</table>

1 = Firm-specific training  2 = Work motivation  3 = Positive affectivity
4 = Negative affectivity  5 = External opportunities
Table 18. Exploratory Factor Analysis for Endogenous Variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loadings</th>
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<td>2.3</td>
<td></td>
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<tr>
<td>2.4</td>
<td></td>
</tr>
</tbody>
</table>

1 = Job satisfaction 2 = Organizational commitment
Dear Respondent,

This questionnaire is part of a research that is designed to gain a better understanding of the attitudes and experiences of agricultural professionals in Kenya. Your contribution to this project is very important. You are in a unique position to help identify factors that affect agricultural professional's attitudes towards their work and the kind of work experiences they have in their job. By completing this survey you will help identify what may improve the quality of work experiences for agricultural professionals.

Your participation in this survey is highly appreciated. Answers to all questions are voluntary and all answers will be kept completely confidential. Your responses will be used only in combination with the responses from other participants. No names or any information that could be used to identify particular respondents will be employed in reporting the research findings. All surveys will be kept in a locked cabinet to which only the researcher has a key and will be destroyed at the end of the study. Also to ensure that administrators do not have access to the information that you will divulge, you are provided with an envelope in which to seal your completed interview schedule before handing it over to the researcher or an assistant. A postage stamp is enclosed with your questionnaire to enable you to mail your completed questionnaire directly to the researcher if you cannot complete it immediately and return it to him or to his assistant.

You will notice a request for an identification number in the upper right hand corner of the first page of the questionnaire. A follow up survey addressing who leaves and who stays is planned after this study is completed. The number is, therefore, a standard procedure that will enable us to identify those who stay with, or leave, their current employer during the follow up survey. This number will not be used when reporting the study findings.
INSTRUCTIONS FOR COMPLETING THE SURVEY

I would appreciate if you could take some time to respond to the questions on the following pages of the questionnaire. Most questions require that you simply check the appropriate box for the response that most accurately represents your present work situation. Please use a pencil and ensure that your answer marks are heavy enough to distinguish them from any erased answer marks. The survey should take between 30 and 40 minutes to complete and you are encouraged to complete it all at once. Please answer the questions in order without skipping around. If you cannot complete your questionnaire immediately when it is handed over to you and return it to the researcher or his assistant, please use the enclosed stamp to mail it directly to the researcher. If you are able to complete the questionnaire immediately after it is handed over to your, please ensure that you seal it in the attached envelope before handing it over to the researcher or his assistant. Sealing your completed survey in the envelope is extremely important because it is the best way to guarantee confidentiality of your responses. Be sure to read each question carefully. A number of questions you are asked to respond to seem repetitious. Don't worry about this. This is often the case with questionnaires of this case. There are no "right" or "wrong" answers to any of the questions. You should be as candid as possible. If you have any questions or comments, please feel free to enclose them with your questionnaire or to mail them separately to:

Munyae M. Mulinge
Department of Sociology
University of Nairobi
PO Box 30197
Nairobi

Thank you again for your time and cooperation.
QUESTIONS 1 THROUGH 15: The following questions are intended to gather information regarding your present job. Please circle one answer or fill in the gap for each question.

1. What sector do you work for?

2. Have you worked in another sector?
   1. Yes  2. No

3. If yes, which one?
   1. Private
   2. Parastatal
   3. Public

4. Which sector would you prefer to work in?
   1. Private
   2. Parastatal
   3. Public

5. Who is your current employer (e.g. Ministry of Agriculture, BAT etc.)

6. What is your job category (title)? [e.g. Agricultural Officer I, Technical Assistant etc.]

7. What is the classification of your position? [e.g. Job Group A, Group K etc.]

8. Approximately how many workers fall directly under your supervision?

9. (a) Where is your work station located?
   1. At the head office
   2. At a regional office (please indicate whether Province, District, Divisional, Locational or Sub-locational office)

(b) In which district (Administrative) is your work station located?
10. How many years have you been working (both in your current job and in any other job(s) you might have held in the past)?  

11. How many of the above working years have been with your current employer? ___

12. Please indicate what benefits you currently receive from your job (note: you may circle more than one):

1. Life Insurance
2. Paid sick leave
3. Medical Insurance
4. Paid vacation
5. Dental care benefits
6. Free (or subsidized) housing
7. Eye-care benefits
8. Free (or subsidized education for children)
9. Good opportunities to further your education
10. Savings plan
11. Free company/organization car and driver
12. Retirement pension
13. Free parking
14. Membership to prestigious clubs
15. Commissions/Profit sharing
16. Co-ownership (shares)
17. Paid maternity leave (for women only)
18. Disturbance and settling allowance whenever transferred from one station to another
19. Other(s) (specify):
   a) ____________________   b) ____________________
   c) ____________________   d) ____________________

13. Which of the benefits listed in question 12 above do you value most? Please select a maximum of five answer from the list of 19 given in question 12 and rank them in importance, with #1 as most important and #5 as fifth in importance.

#1 ____________________   #4 ____________________
#2 ____________________   #5 ____________________
#3 ____________________
14. What are your major reasons for entering the agricultural profession (note: you can circle more than one answer)?

1. Salary potential
2. Opportunity for status/prestige
3. Interesting and challenging work
4. Opportunity for power and influence
5. Opportunity to contribute significantly to economic development process
6. Peer or family pressure
7. Opportunity for power/influence
8. Opportunity for a secure and stable job
9. Other(s) (please specify):

15. How many times have you been promoted since you accepted this job?

1. None
2. One time
3. Two times
4. Three times
5. Four times
6. Five times
7. Six or more times

QUESTION 16 THROUGH 126: The following questions address your work attitudes and experiences in terms of your current job. Select from the following scale to indicate your agreement or disagreement with the following statements [Only one answer should be selected for each statement].

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neither Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

16. I find real enjoyment in my job

17. Work is something people should get involved in most of the time

18. Promotions and pay increases in this organization are based primarily on how well you do your work
<table>
<thead>
<tr>
<th></th>
<th>A: Strongly Agree</th>
<th>B: Agree</th>
<th>C: Neither Agree Nor Disagree</th>
<th>D: Disagree</th>
<th>E: Strongly Disagree</th>
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<td>19.</td>
<td>I do not know exactly what my responsibilities are in performing my job</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>20.</td>
<td>My co-workers can be relied upon when things get tough on my job</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>21.</td>
<td>My organization provides me the opportunity to improve my professional skills and knowledge</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>22.</td>
<td>I control the scheduling of my work</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>23.</td>
<td>Doing my job well depends on knowledge and skills learned while working for this organization</td>
<td>○</td>
<td>○</td>
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<tr>
<td>24.</td>
<td>I have difficulties in getting enough help and equipment to get my job done</td>
<td>○</td>
<td>○</td>
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<td>25.</td>
<td>My experiences in my job have been better than I expected</td>
<td>○</td>
<td>○</td>
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<td>26.</td>
<td>Jumping from organization to organization does not seem at all ethical to me</td>
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<td>27.</td>
<td>I speak highly of the agricultural profession to my friends</td>
<td>○</td>
<td>○</td>
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<td>28.</td>
<td>My spouse is good at understanding my work-related problems</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>29.</td>
<td>I get conflicting job requests from my administrator/supervisor</td>
<td>○</td>
<td>○</td>
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<td>30.</td>
<td>I plan to leave this organization as soon as possible</td>
<td>○</td>
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<td>31.</td>
<td>I know exactly what is expected of me in my job</td>
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<td>○</td>
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<td>I will be able to keep my present job as long as I wish</td>
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<td>E</td>
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<td>33.</td>
<td>Most of the time I cannot do my job because of lack of adequate transportation</td>
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<td>My co-workers are willing to listen to my job related problems</td>
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<td>□</td>
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<td>I do not have enough time to get everything done in my job</td>
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<td>I know how to get my job done</td>
<td>□</td>
<td>□</td>
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<td>□</td>
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<td>37.</td>
<td>I get conflicting job requests from my co-workers</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>38.</td>
<td>I have the opportunity for advancement in my job</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>39.</td>
<td>My job has lived up to the expectations I had when I accepted it</td>
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<td>□</td>
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<td>40.</td>
<td>I influence the things that affect me on the job</td>
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<td>□</td>
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<td>My spouse is willing to listen to my job-related problems</td>
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<td>□</td>
<td>□</td>
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<tr>
<td>42.</td>
<td>My work is a significant contribution to the successful operation of my department</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>43.</td>
<td>I talk of this work setting to my friends as a great place to work</td>
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<td>□</td>
<td>□</td>
<td>□</td>
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<td>44.</td>
<td>I have to work very fast in my job to keep up with my work</td>
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<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>45.</td>
<td>My co-workers are helpful to me in getting my job done</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>46.</td>
<td>Right now staying with my organization is a matter of necessity as much as desire</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td></td>
<td>A Strongly Agree</td>
<td>B Agree</td>
<td>C Neither Agree Nor Disagree</td>
<td>D Disagree</td>
<td>E Strongly Disagree</td>
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<tr>
<td>47.</td>
<td>The skills and knowledge I acquired through formal education/training have been adequate for me to perform my job completely in this organization</td>
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<tr>
<td>48.</td>
<td>One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel an obligation to remain</td>
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<tr>
<td>49.</td>
<td>I am in a dead-end job</td>
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<tr>
<td>50.</td>
<td>My work load is too heavy in my job</td>
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<tr>
<td>51.</td>
<td>My work is really important and worthwhile to my department</td>
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<td>52.</td>
<td>My organization offers the means for me to keep up with the new developments related to my job</td>
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<tr>
<td>53.</td>
<td>I do not feel a strong sense of belonging to my work organization</td>
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<tr>
<td>54.</td>
<td>There is a complete written job description for jobs in my organization</td>
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<tr>
<td>55.</td>
<td>Whenever I have complaints to make someone is always there to listen to me</td>
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<td>56.</td>
<td>The decision making processes in my organization are unacceptable to me</td>
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<tr>
<td>57.</td>
<td>The skills I use to carry out my duties in my job only fit my present work setting</td>
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<tr>
<td>58.</td>
<td>Housing and living conditions at my work station are conducive to the effective performance of my duties</td>
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<tr>
<td>59.</td>
<td>My job is not a secure one</td>
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<tr>
<td>A Strongly Agree</td>
<td>B Agree</td>
<td>C Neither Agree Nor Disagree</td>
<td>D Disagree</td>
<td>E Strongly Disagree</td>
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<tr>
<td>60. I would like to leave this organization</td>
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<tr>
<td>61. It would not be too costly (e.g. in terms of friends made in the job, seniority, accumulated benefits etc.) for me to leave my work organization now</td>
<td></td>
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<tr>
<td>62. It is easy for me to become enthusiastic about something I am doing</td>
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<tr>
<td>63. I often feel that my work counts for very little around here</td>
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<tr>
<td>64. It is easy to communicate any information I have concerning my job to higher level administrators</td>
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<tr>
<td>65. I have inputs in deciding what tasks or part of tasks I will do</td>
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<tr>
<td>66. I would be reluctant to leave this organization</td>
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<tr>
<td>67. My organization does not provide the means for me to attend courses which increase my job skills and knowledge</td>
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<tr>
<td>68. The skills I use to do my job in this organization would transfer easily to most other organizations</td>
<td></td>
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<td>69. I definitely dislike my job</td>
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<td>70. I can move up quickly in my present job</td>
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<tr>
<td>71. I am not dedicated to the agricultural profession</td>
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<tr>
<td>72. My job has well laid down grievance procedures accessible to all employees</td>
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<td>73. It would be very easy for me to find a job with another employer that is as good as the one I now have</td>
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<tr>
<td><strong>74.</strong></td>
<td>Often I get irritated at little annoyances</td>
<td></td>
<td></td>
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<tr>
<td><strong>75.</strong></td>
<td>Work should only be a small part of one's life</td>
<td></td>
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<tr>
<td><strong>76.</strong></td>
<td>I am proud to tell others that I am part of this organization</td>
<td></td>
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<tr>
<td><strong>77.</strong></td>
<td>I have enough support services to do my job</td>
<td></td>
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</tr>
<tr>
<td><strong>78.</strong></td>
<td>I am proud to tell others that I am part of the agricultural profession</td>
<td></td>
<td></td>
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<tr>
<td><strong>79.</strong></td>
<td>I plan to stay a member this organization as long as possible</td>
<td></td>
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<tr>
<td><strong>80.</strong></td>
<td>My duties are repetitious in my job</td>
<td></td>
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<tr>
<td><strong>81.</strong></td>
<td>Job requests from my administrator and co-workers are often conflicting</td>
<td></td>
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<tr>
<td><strong>82.</strong></td>
<td>I would like to work somewhere other than my current organization/firm</td>
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<tr>
<td><strong>83.</strong></td>
<td>My supervisors are always quick to respond to any feedback from me about my job</td>
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<tr>
<td><strong>84.</strong></td>
<td>If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization</td>
<td></td>
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<tr>
<td><strong>85.</strong></td>
<td>It is often frustrating trying to file a complaint in my job</td>
<td></td>
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<tr>
<td><strong>86.</strong></td>
<td>My organization has a very large number of written rules and regulations</td>
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<tr>
<td><strong>87.</strong></td>
<td>I plan to leave this organization in the next year</td>
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<tr>
<td><strong>88.</strong></td>
<td>I feel dissatisfied with my present job</td>
<td></td>
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<tr>
<td><strong>89.</strong></td>
<td>Work should be considered central in life</td>
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<tr>
<td>90.</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neither Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>91.</td>
<td>I often feel happy and satisfied for no particular reason</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>92.</td>
<td>I would like to leave this organization within the next one year</td>
<td></td>
<td></td>
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<tr>
<td>93.</td>
<td>When things get tough on my job I can rely on my supervisors for help</td>
<td></td>
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<tr>
<td>94.</td>
<td>Reaching those at higher levels of administration in my job is almost impossible</td>
<td></td>
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<tr>
<td>95.</td>
<td>I do not care about the fate of the agricultural profession</td>
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<tr>
<td>96.</td>
<td>My mood often goes up and down</td>
<td></td>
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<tr>
<td>97.</td>
<td>It would be very easy for me to find a job with another employer that is better than the one I now have</td>
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<tr>
<td>98.</td>
<td>I have a good chance to move up in this organization</td>
<td></td>
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<tr>
<td>99.</td>
<td>When things get tough at work I can rely on my spouse for emotional support</td>
<td></td>
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<tr>
<td>100.</td>
<td>I am secure in my job</td>
<td></td>
<td></td>
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<tr>
<td>101.</td>
<td>I am fairly well satisfied with my job</td>
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<tr>
<td>102.</td>
<td>I feel very little loyalty to this organization</td>
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<tr>
<td>103.</td>
<td>I am fairly rewarded considering the responsibilities that I exercise (money and recognition are examples of rewards)</td>
<td></td>
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<tr>
<td>104.</td>
<td>It would be very easy for me to find a job with another employer that is much better than the one I now have</td>
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<tr>
<td>105.</td>
<td>My supervisor is willing to listen to my job-related problems</td>
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<td></td>
<td><strong>A</strong></td>
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<td>StrONGLY</td>
<td>AGREE</td>
<td>NOR</td>
<td>AGREE</td>
<td>DISAGREE</td>
</tr>
<tr>
<td>105.</td>
<td>Feedback from baseline workers in my job hardly gets to top policy makers</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>106.</td>
<td>I am not fairly rewarded taking into account the amount of education and training I have had</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>107.</td>
<td>I sometimes feel miserable</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>108.</td>
<td>My supervisor is helpful to me in getting my job done</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>109.</td>
<td>I always seem to have something pleasant to look forward to</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>110.</td>
<td>Generally, my job has not been what I thought it would be</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>111.</td>
<td>My job has variety</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>112.</td>
<td>Individuals in my work group are very friendly</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>113.</td>
<td>Virtually all new employees in my job are required to identify and articulate the firm's shared values (i.e. the purpose of mission that the firm has to society, the customer, and its employees)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>114.</td>
<td>I usually participate in decision making to hire new professional staff</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>115.</td>
<td>I am fairly rewarded for the amount of effort that I put forth</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>116.</td>
<td>People in my work group take personal interest in me</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>117.</td>
<td>In my job nobody cares to familiarize new employees with the indepth workings and expectations of the firm</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>118.</td>
<td>I am fairly rewarded in view of the amount of experience that I have</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neither Agree Nor Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
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</table>

119. I very much look forward to being with the people in my work group each day  

120. It would be very hard for me to leave this organization right now, even if I wanted  

121. The criteria used for promotion in this organization are unacceptable to me  

122. I usually do not participate in decision making to promote professional staff  

123. Promotions in this organization are based primarily on "pull" and "politics"  

124. I often participate in decisions in the adoption of new policies  

125. As a new employee in my job I was required to undergo an intensive course to acquaint myself with the goals and expectations of my organization  

126. I have the opportunity to do a number of different things in my job
Sometimes people receive exactly the amount of something they feel they should receive. Other times they get more or less than they believe they should. For example, you may believe that you are paid exactly what you deserve or you may feel that you are paid more or less than you deserve.

QUESTIONS 127(A) THROUGH 127(U) lists a number of job characteristics and opportunities that a worker could receive from his/her job. On a scale of -4 to +4, please indicate how fair or unfair you believe the amount of each characteristic is in your current job. [Note: The zero indicates exact fairness].

127 a) The opportunity for independent thought and action in my job.

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<tr>
<td></td>
<td>Not Nearly Enough</td>
<td></td>
<td>A Lot Too Much</td>
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b) The chance to make a significant contribution to the successful operation of my department.

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<td></td>
<td>Not Nearly Enough</td>
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<td>A Lot Too Much</td>
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</table>

c) The chance to be creative in my job.

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<tr>
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<td>Not Nearly Enough</td>
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<td>A Lot Too Much</td>
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</table>

d) The opportunity to improve my professional skills (learn new things).

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<tr>
<td></td>
<td>Not Nearly Enough</td>
<td></td>
<td>A Lot Too Much</td>
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</table>

e) The salary that I receive.

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<th>Fair</th>
<th>Extremely Unfair</th>
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<tbody>
<tr>
<td></td>
<td>Not Nearly Enough</td>
<td></td>
<td>A Lot Too Much</td>
</tr>
</tbody>
</table>
The fringe benefits that I get.

\[ \begin{array}{cccccccc}
-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\
\text{Extremely Unfair} & \text{Fair} & \text{Extremely Unfair} \\
\text{Not Nearly Enough} & \text{Fair} & \text{A Lot Too Much} \\
\end{array} \]

g) Co-workers who are helpful to me in getting my job done.

\[ \begin{array}{cccccccc}
-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\
\text{Extremely Unfair} & \text{Fair} & \text{Extremely Unfair} \\
\text{Not Nearly Enough} & \text{Fair} & \text{A Lot Too Much} \\
\end{array} \]

h) Supervisors/administrators who are willing to listen to my work-related problems.

\[ \begin{array}{cccccccc}
-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\
\text{Extremely Unfair} & \text{Fair} & \text{Extremely Unfair} \\
\text{Not Nearly Enough} & \text{Fair} & \text{A Lot Too Much} \\
\end{array} \]

i) Family members who listen to my work-related problems.

\[ \begin{array}{cccccccc}
-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\
\text{Extremely Unfair} & \text{Fair} & \text{Extremely Unfair} \\
\text{Not Nearly Enough} & \text{Fair} & \text{A Lot Too Much} \\
\end{array} \]

j) Co-workers who take personal interest in me.

\[ \begin{array}{cccccccc}
-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\
\text{Extremely Unfair} & \text{Fair} & \text{Extremely Unfair} \\
\text{Not Nearly Enough} & \text{Fair} & \text{A Lot Too Much} \\
\end{array} \]

k) The opportunity to be promoted.

\[ \begin{array}{cccccccc}
-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\
\text{Extremely Unfair} & \text{Fair} & \text{Extremely Unfair} \\
\text{Not Nearly Enough} & \text{Fair} & \text{A Lot Too Much} \\
\end{array} \]

l) A sense of job security.

\[ \begin{array}{cccccccc}
-4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 \\
\text{Extremely Unfair} & \text{Fair} & \text{Extremely Unfair} \\
\text{Not Nearly Enough} & \text{Fair} & \text{A Lot Too Much} \\
\end{array} \]
m) The time available to me to get my job done.

-4  -3  -2  -1  0  1  2  3  4

Extremely Unfair  Fair  Extremely Unfair
Not Nearly Enough  A Lot Too Much

n) The exact knowledge of what my responsibilities are in my job.

-4  -3  -2  -1  0  1  2  3  4

Extremely Unfair  Fair  Extremely Unfair
Not Nearly Enough  A Lot Too Much

o) The opportunity to get non-conflicting job demands from my supervisors.

-4  -3  -2  -1  0  1  2  3  4

Extremely Unfair  Fair  Extremely Unfair
Not Nearly Enough  A Lot Too Much

p) The resources (time, information and equipment) necessary for me to do my job.

-4  -3  -2  -1  0  1  2  3  4

Extremely Unfair  Fair  Extremely Unfair
Not Nearly Enough  A Lot Too Much

q) A complete written job description for the job I do.

-4  -3  -2  -1  0  1  2  3  4

Extremely Unfair  Fair  Extremely Unfair
Not Nearly Enough  A Lot Too Much

r) Promotion and pay increase procedures and organizational policies and directives that are acceptable to all.

-4  -3  -2  -1  0  1  2  3  4

Extremely Unfair  Fair  Extremely Unfair
Not Nearly Enough  A Lot Too Much

s) Well laid down grievance procedures accessible to all employees.

-4  -3  -2  -1  0  1  2  3  4

Extremely Unfair  Fair  Extremely Unfair
Not Nearly Enough  A Lot Too Much
t) Well established communication channels that facilitate quick feedback from bottom to top and vice versa.

-4 -3 -2 -1 0 1 2 3 4

Extremely Unfair Fair Extremely Unfair
Not Nearly Enough A Lot Too Much

u) The chance to participate in decision making.

-4 -3 -2 -1 0 1 2 3 4

Extremely Unfair Fair Extremely Unfair
Not Nearly Enough A Lot Too Much

QUESTIONS 128(a) THROUGH 128(u): Listed below are different kinds of opportunities which a job might offer. How much importance do you attach to each of the opportunities, regardless of whether or not your present job provides them? Please use the following scale to respond.

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<tr>
<th>A</th>
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<th>C</th>
<th>D</th>
<th>E</th>
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</thead>
<tbody>
<tr>
<td>Of Great Importance</td>
<td>Quite Important</td>
<td>Of Some Importance</td>
<td>Of Very Little Importance</td>
<td>Not Important At All</td>
</tr>
</tbody>
</table>

128 a) To have freedom to make decision about my job

b) To be able to make a significant contribution to the successful operation of my department

c) To have variety on my job

d) To have the opportunity to improve my professional skills

e) To receive good pay for the work I do

f) To receive good fringe benefits from my job

g) To have co-workers support to do my job
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<th>E</th>
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<tbody>
<tr>
<td>Of Great Importance</td>
<td>Of Quite Important</td>
<td>Of Some Importance</td>
<td>Of Very Little Importance</td>
<td>Not Important At All</td>
</tr>
</tbody>
</table>

h) To have the support of administrators in my job

i) To have family support to do my job

j) To have co-workers who take personal interest in me

k) To have opportunity for advancement

l) To have job security

m) To have enough time to get everything done in my job

n) To know what is required of me in the job

o) To be free of conflicting job demands from other people

p) To have enough resources (time, information and equipment) to do my job

q) To have a complete written job description for the job I do

r) To have promotion and pay increase procedures and organizational policies and directives that are acceptable to all

s) To have well laid down grievance procedures accessible to all employees

t) To be rewarded fairly for the job I do

u) To have the opportunity to participate in decision making
QUESTIONS 129 THROUGH 142: The final set of questions is intended to collect information on your personal background. Please either fill in the blank or circle the response that best describes you. Although the questions are about you please keep in mind that they are to be used in statistical form only.

129. What is your year of birth? ________________

130. What is your sex?

1. Male
2. Female

131. What is your marital status?

1. Single (never married) 4. Married
2. Non-Marital relationship 5. Separated
3. Divorced 6. Widowed

132. How many dependents (e.g. spouse, children, relatives etc.) live with you?

1. None
2. One
3. Two
4. Three
5. Four
6. Five
7. Six
8. Other (specify) __________

133. How many other people not living with you depend on the income from your job?

1. None
2. One
3. Two
4. Three
5. Four
6. Five
7. Six
8. Other (specify) __________

134. How many of you or your spouse's immediate relatives (e.g. parents or siblings) live within easy driving distance?

1. None
2. One
3. Two
4. Three
5. Four
6. Five
7. Six
8. Other (specify) __________
135. What is the highest level of formal schooling you have completed?

1. Primary school graduate
2. Junior secondary school graduate
3. Secondary school graduate
4. High school graduate
5. Training Institute graduate
6. Diploma college graduate
7. University graduate
8. Master's degree
9. Other (specify) ____________

136. What was your approximate overall academic performance in training institute/college/university?

1. Certificate ordinary pass
2. Certificate pass with credit
3. Certificate pass with distinction
4. Diploma ordinary pass
5. Diploma pass with credit
6. Diploma pass with distinction
7. Degree ordinary pass
8. Degree lower second class honors
9. Degree upper second class honors
10. Degree first class honors

137. At present, what is your total monthly income (i.e. salary plus housing allowance where the employee is not housed by employer) from your job before taxes and other deductions?

1. Kshs 1000 and below
2. Kshs 1001 - 1500
4. Kshs 2001 - 2500
5. Kshs 2501 - 3000
6. Kshs 3001 - 3500
7. Kshs 3501 - 4000
8. Kshs 4001 - 4500
9. Kshs 4501 - 5000
10. Kshs 5501 - 6000
11. Kshs 6001 - 6500
12. Kshs 6001 - 6500
13. Kshs 6501 - 7000
14. Kshs 7001 - 8000
15. Kshs 8001 - 9000
16. Kshs 9001 - 10000
17. Kshs 10000 - 12500
18. Kshs 12501 - 15000
19. Kshs 15001 - 17500
20. Kshs 17501 - 20000
21. Kshs 20001 - 25000
22. Kshs 25001 or More

138. What monthly income from your job, including housing allowance, do you feel you deserve, one that would be fair and just considering your education, training, experience, position, and input into your work? Kshs ____________________________

139. What is your total monthly income from sources other than your job (e.g. business, consultancy etc.)?

1. None (I do not have any other source of income).
2. ____________________________ (Enter sum in Kshs).
140. Approximately what is your spouse's total monthly earnings (i.e. salary plus housing allowance if not housed by employer) from his/her job before taxes and other deductions are made?

1. Not Applicable (I am a single income earner)
2. Kshs 1000 and below
3. Kshs 1001 - 1500
5. Kshs 2001 - 2500
6. Kshs 2501 - 3000
7. Kshs 3001 - 3500
8. Kshs 3501 - 4000
9. Kshs 4001 - 4500
10. Kshs 4501 - 5000
11. Kshs 5001 - 5500
12. Kshs 5501 - 6000
13. Kshs 6001 - 6500
14. Kshs 6501 - 7000
15. Kshs 7001 - 8000
16. Kshs 8001 - 9000
17. Kshs 9001 - 1000
18. Kshs 10001 - 12500
19. Kshs 12501 - 15000
20. Kshs 15001 - 17500
21. Kshs 17501 - 20000
22. Kshs 20001 - 25000
23. Kshs 25001 or more

141. What is your spouse's total monthly income from sources other than his/her job (e.g. business, consultancy etc.)?

1. Not Applicable (I am a single person)
2. None (spouse does not work/have income)
3. ____________________________ (Enter sum in Kshs)

142. Which of the following best describes your beliefs about your pay and allowances:

1. I receive much more than I deserve
2. I receive more than I deserve
3. I receive exactly what I deserve
4. I receive less than I deserve
5. I receive much less than I deserve

Is there anything else you wish us to know concerning your present job? If so, please use this space for that purpose. Also, any comments you wish to make that you think would contribute to our study will be highly appreciated. Use the remaining bit of this space or a separate piece of paper for that purpose.
### KEY TO CONSTRUCTS AND QUESTIONS ON AGRICULTURAL PROFESSIONALS SURVEY

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