

Job Satisfaction and Its Determinants in Addis Ababa: Evidence from Public Employees

Fassil Sisay Yewhala¹

Abstract

For decades, job satisfaction has been an object of interest for many. More recently, public managers find it difficult to disregard the issue of job satisfaction as it directly affects productivity and turnover of the workers. The main purpose of this research is to investigate determinants that influence the job satisfaction and analyze the level of job satisfaction of civil servants in Addis Ababa city administration. To achieve the research objective, information was gathered through questionnaires from 372 randomly selected public servants in five sub-cities (Bole, Arada, Yeka, Gulele, and Kirkos) during summer 2015. In order to analyze job satisfaction, an ordered probit model was utilized. After the analysis, some attention-grabbing findings have come into sight. To begin with, women are more satisfied with their jobs than men. It also shows an inverted U-shaped relationship between age and job satisfaction. The best and least trained are less satisfied relative to intermediately educated. Married are more satisfied than non-married. Moreover, family characteristics found to have no significant effect on job satisfaction of workers; health problems do not significantly affect job satisfaction; and living in rental house have lower job satisfaction than living in own house. With respect to job related characteristics, civil servants who are living in their own house, working in a conducive working environment, believe to have a secured job, commute for short distance, and worked for less than 5 years in present organization report higher level of job satisfaction. What is more, individuals working for Bole sub-city administration as well as those working in land administration sector have higher job satisfaction. Finally, this paper recommends the city administration to improve working environment; facilitate paths to homeownership for civil servants; device a mechanism to make them car owners; improve their earnings; and regularly assess job satisfaction.

Key Words: Job Satisfaction; Civil Service, Ethiopia; Addis Ababa; Probit

1. Introduction

Governments around the world, especially those in developing countries, face complex challenges linked with enhancing the efficiency of public sector organizations. For decades, job satisfaction has been an object of interest for many. More recently, public managers find it difficult to disregard the issue of job satisfaction. Job satisfaction is of interest for public managers as it directly affects productivity and turnover of the workers.

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Studying satisfaction in the workplace is valuable because higher level of job satisfaction is suggested to be related to higher level of productivity and performance. Even though the true nature of relationship between job satisfaction and job performance is quite contested (Saari & Judge, 2004), the finding of Organ and Ryan (1995) suggests the relationship to be positive. In addition, a meta-analysis by Judge, Thoresen, Bono, and Patton (2001) has found the same result and the true mean correlation is estimated to be 0.30. Hence, the more satisfied the employees are, the more likely they are to perform better in their job.

What's more, in order to know how to improve their members' satisfaction, labor unions are interested in identifying the major determinants of job satisfaction. Employees themselves are interested in job satisfaction studies as it helps them make decisions based on the expectation of job satisfaction with the potential position. Moreover, studies suggest job satisfaction to have significant positive impact on an employee's overall wellbeing.

Modern civil service system in Ethiopia has a long history. Western style of administrative system is believed to be introduced by the time of Emperor Minilk II in 1907. Since then the Ethiopian public administration system has gone through series of reforms on different fronts. The civil service reform program is one of the reform programs that the current government has taken seriously. As part of the civil service reform program, public service delivery reform sub program deals with the improvement of service provision in the country. Since this sub program is embedded with other public administration reform programs, its success or failure has a huge impact on the overall performance of the public administration.

Generally speaking, the public service delivery trend of Ethiopian public service institutions is portrayed as inefficient. In specific terms, it is characterized as time consuming, costly, incompetent, non-responsive and non-dynamic. Mengesha and Common (2006) emphasizes that "public service delivery in Ethiopia can be improved if the commitment, ownership, and the drive for change are in place".

Many scholars expect a positive relationship between public service motivation and the job satisfaction of public sector employee. According to Andersen and Kjeldsen (2010), "job satisfaction is closely related to employee work motivation, which concerns the energy an employee is willing to invest in order to achieve a given objective connected to his work". Thus, it would be impossible to improve the quality of service delivery until employees satisfaction is established (P. Kim & Han, 2013). Therefore, understanding the level of job satisfaction of civil servants is vital.

In Ethiopia, job satisfaction studies are not common. For that matter, only few studies are available on this subject. previous job satisfaction studies in Ethiopia focus only on teachers (Gebremichael & Rao, 2013; G. K. Mengistu, 2012) and healthcare workers (M. M. Mengistu & Bali, 2015). That is, satisfaction study that takes into account different sectors of the civil service is not available yet. Accordingly, this study will fill the gap in the literature as it compares job satisfaction levels across different sectors (education, trade and industry, land administration, micro and small scale enterprise, and capacity building). Results from this study will be very important for policy makers to know the extent public servants in Addis Ababa are satisfied with their job and to identify the major determinants that influence job satisfaction in the city.

Against the above statement of the problem, the main purpose of this research is to investigate determinants that influence the job satisfaction and analyze the level of job satisfaction of civil servants in Addis Ababa city Administration.

More specifically, this study aims to a) assess the levels of job satisfaction of civil servants in the city; b) identify major determinants of job satisfaction of civil servants in the city, c) analyze

whether there is a significant difference on job satisfaction between male and female civil servants, and d) analyze whether there is a difference in job satisfaction between civil servants of different sub-cities and also different sectors.

The remaining parts of this paper are arranged as follows. Chapter two composed of literature review. It provides an overview of the main theoretical and conceptual literature on job satisfaction. Chapter three is dedicated to methodological aspects of the study. Chapter four contains the results and discussion. Chapter five concludes.

2. Theoretical and Conceptual Framework

Job satisfaction can be defined as “an overall affective orientation on the part of individuals toward work roles which they are presently occupying”(Kalleberg, 1977). In his article, *Work Values and Job Rewards: A Theory of Job Satisfaction*, Kalleberg (1977) empirically examines how job satisfaction of a worker is being influenced by *work values* and *job rewards*. The former refer to “the individual's awareness of the condition he seeks from the work situation, and they regulate his actions in pursuit of that condition”. They thus refer to general attitudes regarding the meaning that an individual attaches to the work role as distinguished from his satisfaction with that role.” They are affected by life related experience, social roles, or maturity of the worker which transforms into valuation of potential rewards. The later reflects the potential benefits, both intrinsic and extrinsic, that individuals experience in their own work. Even though a worker cannot influence the distribution of the rewards to any job positions, he/she can "have a certain amount of control over attainment of these positions". He argued that both work values and job rewards significantly affect job satisfaction of workers.

2.1 Theories of Job Satisfaction

- **Hierarchy of Needs Theory**

An American psychologist, Abraham Maslow (1954) developed a theory of human needs. He arranged the needs of human beings hierarchically in five levels. At the lowest level, physiological needs (basic needs for our existence such as food, shelter and clothing) are located. The need for safety, the second level of human needs, is about being safe from harm or danger. The desire for love and belongingness is at the third level. Then, the need for esteem follows. Finally, at the highest level of the hierarchy the need which is related to attaining a sense of fulfillment is located.

This theory is based on the premise that job satisfaction is dependent upon the fulfillment of the above mentioned human needs. It argues that one has to first fulfill the lowest level need in order to continue to satisfy the next level need. That is to say, a person has to satisfy his/her physiological and safety needs before he/she tries to satisfy his/her need for love. However, once an individual satisfies the need it no longer becomes a motivation factor.

- **The Two-factor Theory**

In 1950s, an American Behavioral scientist, Herzberg suggested two distinct factors – intrinsic factors and extrinsic factors. The former represents factors leading to job satisfaction (e.g. job recognition, importance of the work and career development opportunity). The later, on the other hand, are factors (e.g. salary, job security, working condition, and supervision) that prevent job

dissatisfaction. For instance, good salary is considered as an extrinsic factor it would not cause motivation. Rather, lack of a good salary would be responsible for dissatisfaction.

Several authors challenged the two-factor theory. On his article, *Work-Value Systems of White-Collar Workers*, Pennings (1970) argued that Herzberg's thesis found to be invalid. In his empirical investigation, he found out a "considerable and meaningful deviations from such a model when structural characteristics of the organization are taken into account". Similarly, Ondrack (1974) rejects the theory of Herzberg as his empirical analysis "failed to yield the two-factor pattern."

- **The Expectancy Theory**

After criticizing Maslow's hierarchy of needs theory and Herzberg's two factor theory, Victor Vroom forward a model which is composed of three components: Valence, Instrumentality and Expectancy. Accordingly, this theory is mostly referred as the VIE model. As Lunenburg (2011) put it, this theory bases on four assumptions:

One assumption is that people join organizations with expectations about their needs, motivations, and past experiences. These influence how individuals react to the organization. A second assumption is that an individual's behavior is a result of conscious choice. That is, people are free to choose those behaviors suggested by their own expectancy calculations. A third assumption is that people want different things from the organization (e.g., good salary, job security, advancement, and challenge). A fourth assumption is that people will choose among alternatives so as to optimize outcomes for them personally.

- **The Equity Theory**

In 1960s, Adam devised the theory of equity. Employees' have tendency of comparing their outcome-input ratio with that of other colleagues. In other words, people compare the input he/she puts in work related activity and the reward he/she receives because of it with the input other employees put and the reward they get. If they perceive that they are treated unfairly their level of job satisfaction will shrink.

- **The Goal-setting Theory**

According to the goal-setting theory, job satisfaction of employees is explained by their goal. Locke (1996) argues that "goals serve as standards of self-satisfaction, with harder goals demanding higher accomplishment in order to attain self-satisfaction than easy goals". The Theory assumes a linear and positive relationship between the difficulty of goal and task performance given the person has a clear goal and an ability and commitment to accomplish it (Locke & Latham, 2006).

2.2 Determinants of Job Satisfaction

According to the theories discussed previously, there are a number of factors that determine job satisfaction of employees. Such variables can be classified as workers' demographic characteristics (age, gender, marital status, education, health status, parenthood, family size, etc), and job related characteristics (salary, income, professional status, activity sector, etc). Subsequently, the main determinants of satisfaction at work place will be discussed.

2.2.1 Demographic Characteristics

- **Gender**

Many researchers investigated the relationship between gender and job satisfaction. In most cases, it is found that the level of job satisfaction for women is found to be much higher than that of men (Bender, Donohuey, & Heywoodz, 2005; Clark, 1997; Fiorillo & Nappo, 2011; Kifle & Kler, 2007; S. Kim, 2005; McDuff, 2001; Scott, Swortzel, & Taylor, 2005). A study on protestant clergy shows the existence of gender paradox within work satisfaction indicating female clergy are more satisfied than are their male counterparts even though they are treated unfairly, paid less salary and had smaller chances for carrier development (McDuff, 2001).

However, there are some contradictory results on this issue in the literature. For instance, using data from Banglادish, Azim, Haque, and Chowdhury (2013) indicated that gender and job satisfaction are not related. Furthermore, a study from Colombia indicates that “women tend to be less satisfied at work as the number of children increases, while men are more prone to satisfaction at work when they are single thus showing the importance given to the use of their own time”(Gamboa, García-Suaza, & Rodríguez-Acosta, 2011).

- **Age**

Age is one of the most important factors of job satisfaction. Even though earlier studies (Blanchflower & Oswald, 2004; Clark, Oswald, & Warr, 1996; Fiorillo & Nappo, 2011; Gazioğlu & Tansel, 2002; Saleh & Otis, 1964) suggest an inverted U-shaped relationship between job satisfaction and age, some recent studies claim a U-shaped relationship.

To be exact, at the beginning of their jobs employees level of job satisfaction becomes high, in the middle ages it decrease, and then it return to higher level later on in life. Young people report higher level of job satisfaction because they have less expectation as they are fresh for work and also because getting a job by itself an achievement especially during high level of unemployment. As time goes by, they tend to feel less satisfied with their job because their expectation grows over time. Moreover, at some point, they tend to compare their job with that of their colleagues and start to feel bad about their job (Clark et al., 1996).

The U-shaped relationship between job satisfaction and age is apparent for both men and women (Mumford & Smith, 2008). Some studies, on the other hand, indicate that age does not significantly affect job satisfaction(Scott et al., 2005).

- **Marital status**

Previous empirical findings on a relationship between marital status and job satisfaction seem to be inconsistent. Using data from Italy, (Fiorillo & Nappo, 2011) reported that Italian married and widowed workers are more satisfied with their jobs than singles. However, (Gazioğlu & Tansel, 2002) reported “the married employees are less satisfied with their job than the single ones by all four measures of satisfaction”. Some studies, on the other hand, reported that marital status and job satisfaction are not related (Azim et al., 2013; Scott et al., 2005).

- **Education**

Previous studies (Clark & Oswald, 1995; Farooq, Ahmed, & Ali, 2008) found out that the negative relationship between education and job satisfaction. This negative relationship is due to the fact that as the level of education increases people's expectation also increases. In addition, highly educated people tend to be overqualified for most of the jobs available in the labor market. Hence, they would be dissatisfied due to the mismatch between the work they are doing and their level of education.

- **Health Status**

After examining western Europeans' job satisfaction using the European Community Household Panel Survey (1994-2001), Ahn and García (2004) reported that "health turns out to be a single most important determinant of overall job satisfaction". Health status of workers seems to positively affect job satisfaction (Clark et al., 1996; Fiorillo & Nappo, 2011; Gazioğlu & Tansel, 2002). The healthier the person the more satisfied he/she would be in job.

- **Parenthood and household size**

Previous studies suggest that the effect of family size on job satisfaction to be negative. The more people live in workers household, the lesser that person be satisfied (Fiorillo & Nappo, 2011).

According to Pouwels (2011), "becoming a parent raises one's happiness levels, but only temporarily. Almost immediately after the birth of the child, happiness levels drop and both mothers and fathers become unhappier than they were before." For Booth and Ours (2008), family characteristic is not a significant factor in job satisfaction.

- **Housing**

Housing is an important predictor of job satisfaction. Results from previous studies pointed out "that there are significant relationships among the variables of housing, life, and job satisfaction"(Keller, Farr, Kirby, & Rusco, 1997). That is, housing satisfaction is directly associated with satisfaction at work place (Fiorillo & Nappo, 2011).

2.2.2 Job Characteristics

- **Salary**

In many job satisfaction studies, personal wage (salary) is found to be an important predictor for employees' satisfaction at their workplace. It is assumed that workers with higher salary would be more satisfied than those with lower salary. For instance, Clark et al. (1996) reported that, while controlling for age, there is a direct association between salary and job satisfaction. Some scholars argue that the relationship is curvilinear rather than linear(Al-Zoubi, 2012). However, Brown, Gardner, Oswald, and Qian (2005) argued that "workers do not care solely about their absolute level of pay, nor are they concerned solely with their income relative to the average remuneration around them".

- **Job security**

Satisfaction at work place is influenced by job security. Workers that worry much about being laid off will most likely report lower level of job satisfaction than those who perceive otherwise (Blanchflower & Oswald, 1999). In other words, the more secure job is the higher job satisfaction. The same result was also found by Gazioğlu and Tansel (2002).

- **Job Category, workload and work experience**

Regarding employment category, previous researches indicate supervisors are more satisfied than others (Blanchflower & Oswald, 1999). Workload is also an important factor in determining job satisfaction of workers. People working above their capacity are less likely to be satisfied because of over burden. Similarly, underemployed workers are less likely to be satisfied with their job seeing that they not fully underutilized (Addy, Nzaku, & Ijaz, 2012).

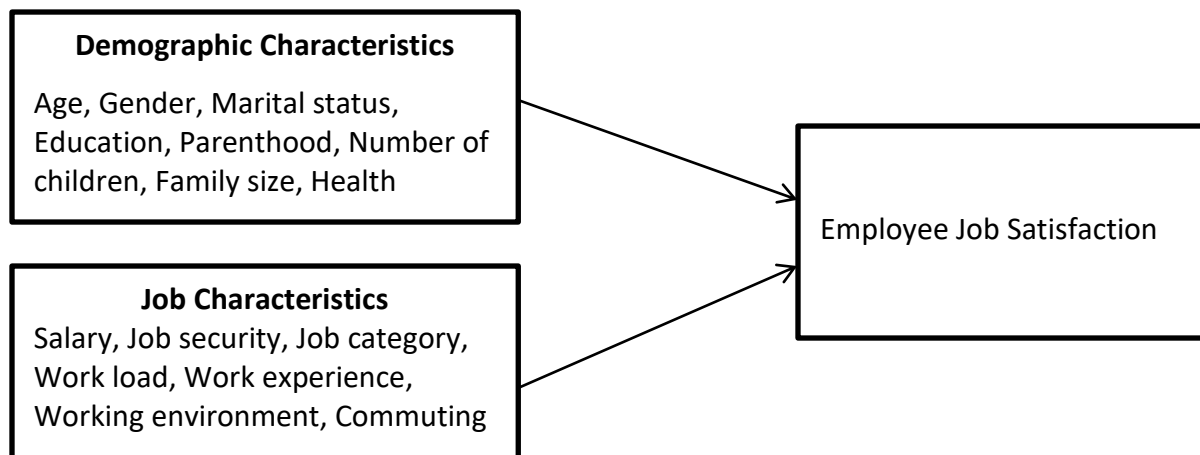
- **Working environment and Commuting**

The relationship between job satisfaction and working environment of the organization is reported to be positive (Gazioğlu & Tansel, 2002). Moreover, those commute short distances believed to have higher level of job satisfaction than those travel for longer distance.

2.2.3 Conceptual Framework

In the light of the above theoretical discussion, conceptual frame work of job satisfaction is in figure 2.1 below.

Figure 2.1: Conceptual Framework



Source: Author's Conceptualization based on Literature review

3.1 Methodology

3.1.1 Data

For this study, the population covers all public servants working for the Addis Ababa city administration. The city administration of Addis Ababa is divided into 10 sub cities. Obvious as it is, drawing a sample, especially if no lists are available, is difficult. Having that in mind, to determine the sampling individuals a three-stage sample design is applied. At the first stage, the primary sampling units (PSUs) are selected. Accordingly, five sub-cities (namely, Bole, Arada, Yeka, Gulele, and Kirkos) are randomly chosen. At the second stage of sampling, sectors within selected primary sampling units are selected. To be exact, in each sub-city five sectors (namely, Education Office, Micro and Small-scale Enterprise Office, Land Administration Office, Capacity Building Offices, and Trade and Industry Office) are randomly selected. Finally, sub-city level civil servants are selected at random.

Kothari (2004) provided a simplified formula to calculate sample sizes when information about the population is not available. To get a conservative sample size, Kothari (2004) suggested “to take the value of $p = 0.5$ in which case ‘n’ will be the maximum and the sample will yield at least the desired precision”. This will be the most conservative sample size assuming 95% confidence level and $P = .5$.

$$n = \frac{z^2 p q}{e^2} \dots\dots\dots (1)$$

Where n = desired sample size

Z = the value of the standard variate at a given confidence level and to be worked out from table showing area under Normal Curve; (Z statistic = 1.96)

p = population proportion (0.5)

q = 1-q (0.5)

e = acceptable error (0.05)

Sample size, 384 employees, obtained by using the above formula echoes the number of responses to be attained (i.e. it does not include the non-responses). Hence, to compensate for non-responses, additional (30%) employees must be included in the survey (Israel, 1992). Accordingly, questionnaire was given to 500 sub city-level public servants in Addis Ababa. The questionnaire was designed to gather basic demographic information, other job related characteristics and level of job satisfaction. All data for this study were gathered during summer 2015 and the overall response rate was 75.2%. After cleaning the data for missing values, 372 cases are used for econometric analysis.

3.1.2 Operationalization

- **Dependent variable: job satisfaction index**

To measure job satisfaction in a comprehensive manner, an index that contains several aspects of job satisfaction was developed. Based on the literature review, seven set of satisfaction questions were asked. These set of variables are satisfaction in terms of: earnings, type of job, job security, job environment, house-work distance, job time and work in general. All seven items have 10 possible choices: from 1 (not satisfied at all) to 10 (fully satisfied).

After assessing for outliers, normality and linearity, factor analysis was conducted. To find out whether a single scale could be extracted from the list of seven items the principal component analysis (PCA) is ideal (Krishnan, 2010). The Kaiser-Meyer-Olkin (*KMO*) test, a test that confirms the suitability of doing factor analysis, produced a result of 0.902 which is higher than the adequate value 0.7. Bartlett's sphericity test was significant at the 0.001 level indicating the variables in the population correlation matrix are correlated. The graphical inspection of the scree plot suggest that since there is only one factor with an Eigen value greater than 1, only one factor should be extracted. Furthermore, a reliability test, a measure of the internal consistency (Spector, 1992), was performed to see whether all the seven items belong to the scale. The seven variables were combined to form a single scale that measured job satisfaction of civil servants (Cronbach's $\alpha = 0.897$).

In order to get an index for job satisfaction, the most commonly used approach is to calculate the average of the items in the scale (Hair, Black, Babin, & Anderson, 2009). Accordingly, scores on all seven items stated above were summed up and averaged. Hence, the higher scores on job satisfaction index the higher overall level of job satisfaction.

- **Independent variables**

According to the theoretical and empirical literature discussed previously, a number of variables explain job satisfaction of workers. Such variables can be classified as either demographic characteristics or variables related to work. Table 1 below describes independent variables.

Table 3.1: Description of independent variables

Variable		Description
Demographic Variables	Age	Suspecting a non-linear relationship between age and job satisfaction, a test for nonlinearity with a quadratic term will be conducted.
	Gender	Gender is measured as (a) male and (b) female.
	Marital status	Marital status categories are measured as married and non-married.
	Education	It is categorized in to five categories: (a) 12 and below (b) certificate and diploma, and (c) Bachelor degree and Master degree and above.
	Household Income	The current total monthly net household income. The variable is transformed into natural log to maintain the non-linear relationship between household income and job satisfaction.
	Health Status	Respondents are asked if they have any chronic physical or mental health problem, illness, or disability, which has "yes" or "no" answers.
	Parenthood	Being a parent to children 14 years or younger, assuming that this is the time that requires the most parental assistance.
	Number of Children	Number of children
	Family size	Size of the household. Continuous variable
	Housing	Housing condition (rental housing or own house)

Job Related Character istics	Salary	Monthly salary in local currency (Ethiopian birr) is used. The variable is transformed into its logarithm.
	Job Security	Do you feel secured at your job
	Working environment	Is there conducive working environment?
	Job category	Respondents are asked if they are supervisors or experts
	Workload	Work load (below capacity, balanced, and above capacity)
	Commuting	How far away is your office from your home?

3.1.3 The Econometric Model

Several studies employ different estimation techniques of the determinants of job satisfaction. This difference in methodology is due to the difference in assumption on the cardinal and ordinal nature of job satisfaction scales.

Despite the fact that Ordinary Least Squares (OLS) regression suffers from many limitations (e.g. heteroskedasticity), in cases where the dependent variables are ordinal, some researchers (Ahn & García, 2004; Andreassi, Lawter, Brockerhoff, & Rutigliano, 2012; Durst & DeSantis, 1997; S. Kim, 2005) opt for it mainly for the sake of simplicity. Others (Clark & Oswald, 1995; Clark et al., 1996; Fiorillo & Nappo, 2011; Gamboa et al., 2011; Gazioğlu & Tansel, 2002; Mumford & Smith, 2008; Nuland, 2007; Vanin, 2001), on the other hand, employ an ordered probit technique due to the fact that cardinal nature of job satisfaction scales.

As it is difficult to assume that a person with job satisfaction of eight is twice as happy with his/her job as a person with four, taking job satisfaction scale as continuous variable is invalid. Considering the fact that the dependent variable, job satisfaction index, is ordinal in nature, this study opts for ordered probit model. Jackman (2000) extended a number of equations regarding the ordered probit models. An ordered probit model assumes that the latent variable, y^* expressed as follows:

$$y_i^* = \beta x_i + \varepsilon_i, \varepsilon_i \sim N(0, 1), V_i = 1, \dots, N. \dots\dots\dots (2)$$

The observable ordered variable y_i , the observed ordinal variable (0, m), takes on values 0 through m according modeled as:

$$y_i = j \leftrightarrow \mu_{j-1} < y_i^* \leq \mu_j$$

Where $j = 0 \dots m$, and $\mu_{-1} = -\infty$, and $\mu_m = +\infty$.

Consider the probabilities of each ordinal outcome:

$$\begin{aligned} P[y_i = 0] &= P[\mu_{-1} < y_i^* \leq \mu_0], \\ &= P[-\infty < y_i^* \leq \mu_0], \\ &= P[y_i^* \leq \mu_0], \end{aligned}$$

substituting from (2),

$$\begin{aligned} &= P[\beta x_i + \varepsilon_i \leq \mu_0], \\ &= P[\varepsilon_i \leq \mu_0 - \beta x_i], \\ &= \Phi(\mu_0 - \beta x_i); \\ P[y_i = 1] &= P[\mu_0 < y_i^* \leq \mu_1], \\ &= P[\mu_0 < \beta x_i + \varepsilon_i \leq \mu_1], \end{aligned}$$

$$\begin{aligned}
&= P[\mu_0 - \beta x_i < \varepsilon_i \leq \mu_1 - \beta x_i], \\
&= \Phi(\mu_1 - \beta x_i) - \Phi(\mu_0 - \beta x_i) \\
P[y_i = 2] &= \Phi(\mu_2 - \beta x_i) - \Phi(\mu_1 - \beta x_i) \\
&\text{and that generically} \\
P[y_i = j] &= \Phi(\mu_j - \beta x_i) - \Phi(\mu_{j-1} - \beta x_i) \\
\text{For } j = m \text{ (the "highest" category) the generic form reduces to} \\
P[y_i = m] &= \Phi(\mu_m - \beta x_i) - \Phi(\mu_{m-1} - \beta x_i) \\
&= 1 - \Phi(\mu_{m-1} - \beta x_i) \dots\dots\dots(3)
\end{aligned}$$

The log-likelihood is simply

$$\ln L = \sum_{i=0}^m \sum_{j=0}^m Z_{ij} \ln [\Phi_{ij} - \Phi_{ij-1}] \dots\dots\dots(4)$$

Where $\Phi_{ij} = \Phi(\mu_j - \beta x_i)$ and $\Phi_{ij-1} = \Phi(\mu_{j-1} - \beta x_i)$. This is done by defining an indicator variable Z_{ij} , which equals 1 if $y_i = j$ and 0 otherwise

As discussed in the previous section Job Satisfaction (JS) of employees is determined by a number of factors. Mathematically the relationship can be written as follows:

$$JS_i^* = \alpha + \beta_i x_i + \varepsilon_i \dots\dots\dots(5)$$

Where JS_i^* is the latent job satisfaction variable; x_i = determinants of JS; and ε_i = residual or unexplained part of the model.

$$P[JS_i = j] = \Phi(\mu_j - \alpha - \beta_i x_i) - \Phi(\mu_{j-1} - \alpha - \beta_i x_i) \dots\dots\dots(6)$$

Where j takes a value from 0 to 10, μ_j is defined as $JS_i = j$ when $\mu_{j-1} < y_i^* \leq \mu_j$

4. Result and Discussion

4.1 Descriptive Statistics

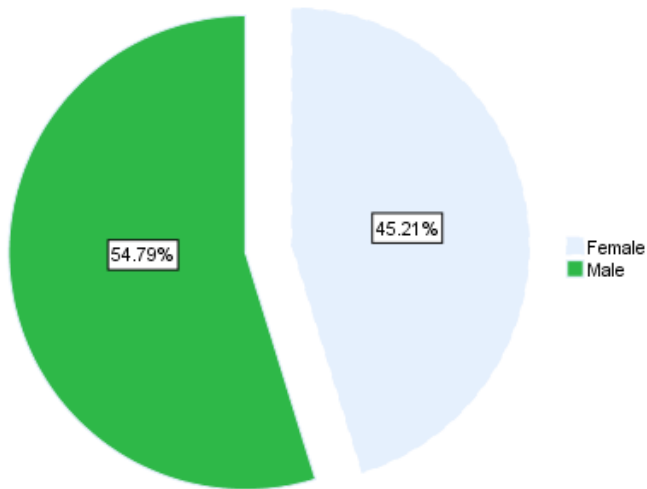
The average age of the participants in this study is 34 years (SD=8.741), ranging from 17 to 60. As shown in table 4.1, while the minimum family size is 1 and the maximum is 11, the average family size of civil servants in Addis Ababa is 3 (SD=2.179). The highest monthly of the respondents is 8200 ETB (Ethiopian Birr) and the lowest salary is 617 ETB. On average, civil servants in Addis Ababa earn about 3600 ETB per month.

Table 4.1: Demographic Characteristics

	N	Minimu m	Maximu m	Mean	Std. Deviation
Age	375	17	60	34.11	8.741
Family size	376	1	11	3.12	2.179
Number of Children	375	0	7	1.00	1.315
Gross monthly salary	373	617	8200	3559.86	1318.328

Source: Field Survey, 2015

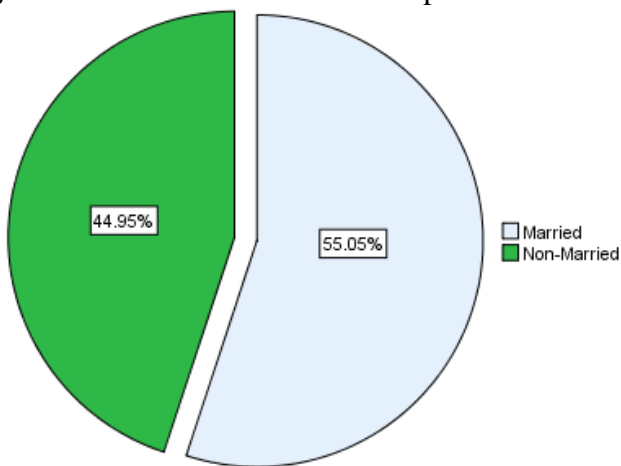
Figure 4.1: Sex of the respondents



Source: Field Survey, 2015

As can be seen in figure 4.1, Male respondents comprised of 206 (54.79%) compared to 170 (45.21%) female respondents which is roughly in line with the gender composition in Ethiopian civil service.

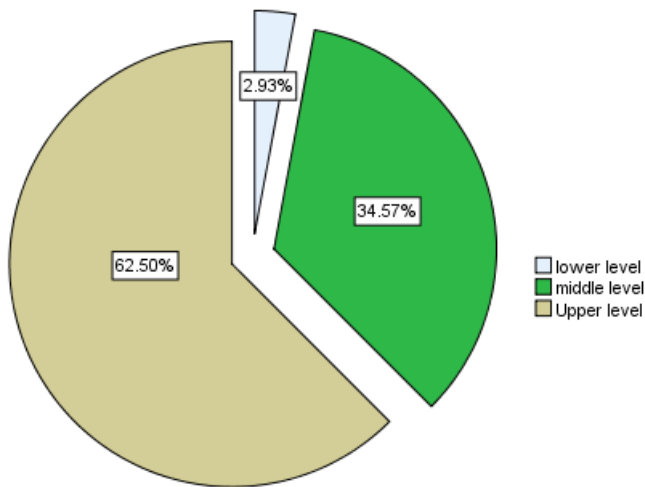
Figure 4.2: Marital Status of the respondents



Source: Field Survey, 2015

For this analysis marital status is categorized in two groups as married and non-married. The non-married category includes those who are single, widowed, divorced or separated. Out of the total 376 civil servants who responded the questionnaire 207 (55.05%) are married and the remaining 169 (44.95%) non-married.

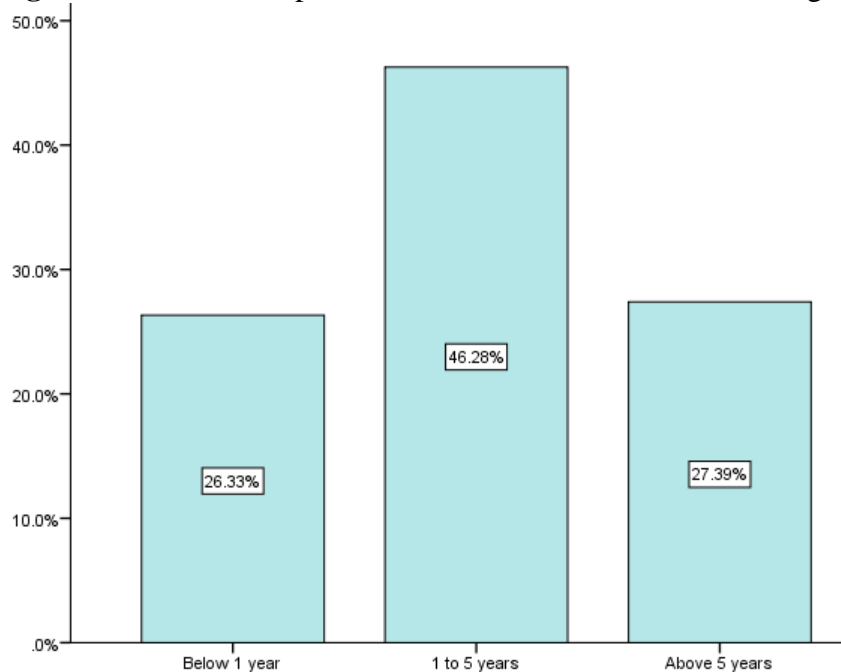
Figure 4.3: Educational Qualification of the respondents



Source: Field Survey, 2015

The vast majority of the respondents, 235 (63.5%), has a minimum educational level of bachelor or master degree (upper level), whilst 141 (37.5 %) possess an educational level of diploma and below. Consequently, one can straightforwardly conclude that most of the respondents are well educated.

Figure 4.4: Year of Experience in the Current Civil Service Organization



Source: Field Survey, 2015

Most of the respondents (46.28%) have been working for 1 to 5 years in public sector organization they are currently working for. Respondents who have more than 5 years

experience represents 27.39%. The remaining 26.33% have worked for less than one year. This finding reveals that significant proportion of the respondents (72.61%) have less than 5 years on the public service organizations under investigation.

Table 4.2: Sector the employee is working at by Sub-city

		Sector					Total
		Capacity Building	Education	Trade and Industry	Land Administration	MSE	
Sub-City	Arada	12(3.2%)	7(1.9%)	10(2.7%)	12(3.2%)	19(5.1%)	60(16.0%)
	Bole	19(5.1%)	13(3.5%)	20(5.3%)	18(4.8%)	16(4.3%)	86(22.9%)
	Yeka	22(5.9%)	13(3.5%)	13(3.5%)	16(4.3%)	14(3.7%)	78 (20.7%)
	Kirkos	14(3.7%)	14(3.7%)	9(2.4%)	15(4.0%)	14(3.7%)	66(17.6%)
	Gulele	19(5.1%)	12(3.2%)	16(4.3%)	20(5.3%)	19(5.1%)	86(22.9%)
	Total	86(22.9%)	59(15.7%)	68(18.1%)	81(21.5%)	82(21.8%)	376(100.0%)

Source: Field Survey, 2015

One of the objectives of this paper is to find out the level of satisfaction in seven set of satisfaction indicators. These set of indicators are satisfaction in terms of: earnings, type of job, job security, job environment, house-work distance, job time and work in general. Table 4.3 below provides the reported job satisfaction measures are distributed.

Table 4.3: Level of job satisfaction

Job satisfaction in terms of:	Highly Satisfied	Satisfied	moderately Satisfied	Dissatisfied	Highly Dissatisfied
Earnings	19 (5.1%)	42 (11.2%)	107 (28.5%)	63 (16.8%)	145(38.6%)
Type of work	81 (21.5%)	70 (18.6%)	115 (30.6%)	48 (12.8%)	62 (16.5%)
Job security	69 (18.4%)	71 (18.9%)	95 (25.3%)	57 (15.2%)	84 (22.3%)
Job environment	61 (16.2%)	63 (16.8%)	94 (25.0%)	64 (17.0%)	94 (25.0%)
Distance to workplace	81 (21.5%)	53 (14.1%)	104 (27.7%)	49 (13.0%)	89 (23.7%)
Work load	89 (23.7%)	77 (20.5%)	121 (32.2%)	40 (10.6%)	49 (13.0%)
Over all job satisfaction	90 (23.9%)	65 (17.3%)	108 (28.7%)	43 (11.4%)	70 (18.6%)

Source: Field Survey, 2015

More than half of the civil servants (55.4%) responded that they are dissatisfied or highly dissatisfied with their salary. That is, only 16.3 percent of the employees reported to be satisfied or very satisfied with their pay. While respective figures for satisfied and highly satisfied with job security, job environment and distance to work place type of work is each about 35 percent and satisfaction with the respect to type of work and work load is slightly more than 40 percent. When they are asked “Overall, how satisfied or dissatisfied are you with your job”, 41.2 percent of the respondents answered satisfied or highly satisfied, 28.7 percent answered moderately satisfied and the remaining 30 responded dissatisfied or highly dissatisfied. Accordingly, civil servants in Addis Ababa appear to be less satisfied with their salary but more, to some extent, satisfied with their job in terms of the other indicators of job satisfaction.

4.2 Econometric Results

In table 4.4 below a number of findings containing different ordered probit estimates of job satisfaction are presented. The first column 1 shows job satisfaction explained by personal characteristics. Column 2 contains job related variables. Column 3 adds salary in to the model. In each regression the dependent variable is job satisfaction index (JSI). Subsequently, section 4.2.1 shows results for demographic characteristics.

Table 4.4: Equations for Job Satisfaction: Ordered Probits

	Column 1	Column 2	Column 3
<i>Demographic Characteristics</i>			
Gender (Ref: Female)			
Female	0.252 (0.121)*	0.264 (0.133)*	0.273(0.136)*
Age	-0.001(0.049)	0.148 (0.052) **	0.143(0.054)**
Age Squared/100	0.007(0.063)	-0.178 (0.067) **	-0.173(0.068)*
Family size	-0.021(0.038)	0.012(0.039)	0.012(0.039)
Number of Children	0.094(0.076)	0.048(0.079)	0.046(0.079)
Child below 14 (Ref: Yes)			
No	0.197(0.157)	0.135(0.161)	0.131(0.161)
Marital Status (Ref: Non-Married)			
Married	0.327 (0.131) *	0.161(0.136)	0.1563(0.137)
Education (Ref: BA and above)			
Grade 12 and below	0.481(0.323)	0.564(0.364)	0.632(0.420)
Certificate and Diploma	0.489(0.122)** *	0.377(0.142) **	0.394 (0.151) **
Housing (Ref: Own house)			
Rental house	-0.469 (0.144)**	-0.347(0.151) *	-0.348(0.151) **
Health Problem (Ref: Yes)			
No	0.268 (0.168)	0.288 (0.171)	0.283 (0.172)
<i>Job Related Characteristics</i>			
Sector (Ref: MSE)			
Capacity Building		-0.026(0.166)	-0.027(0.166)
Education		0.128(0.191)	0.131(0.192)
Trade and Industry		0.007(0.182)	0.008(0.182)
Land Administration		0.425(0.184)*	0.404(0.194)*
Sub-City (Ref: Gulele)			
Arada		0.218(0.183)	0.219(0.183)
Bole		0.354(0.166)*	0.355(0.166)*
Yeka		0.251(0.168)	0.247(0.169)
Kirkos		-0.062 (0.171)	-0.075 (0.172)
Job position (Ref: Manager)			
Expert		-0.227(0.187)	-0.217(0.190)
Work Experience (Ref: >5 years)			

<1 year	0.587 (0.187) **	0.595 (0.175) **
1 to 5 years	0.287 (0.139)*	0.290 (0.140)*
Commuting distance (Ref: Far)		
Near	0.717 (0.132) ***	0.717 (0.132) ***
Work Environment (Ref: Conducive)		
Not Conducive	-0.757 (0.135) ***	-0.756(0.135) ***
Job Security (Ref: Secured)		
Not Secured	-0.675(0.132) ***	-0.681(0.133) ***
Workload (Ref: Above capacity)		
Below capacity	0.815 (0.292) **	0.814(0.292) **
Balanced	1.362(0.293) ***	1.358 (0.294) ***
Gross monthly salary (log)		0.152(0.466)
N	372	372
Pseudo R ² (Nagelkerke)	0.185	0.527
-2 Log Likelihood	2815.930	2743.236
		2743.131

Source: Field Survey, 2015

4.2.1 Demographic Characteristics

- **Gender**

Gender is one of the variables of interest in this study. The finding from table 4.4 shows that the coefficient for female is found to be positive and statistically significant even after relevant variables indicating women are more satisfied with their jobs than men. This finding confirms what previous researchers (Bender et al., 2005; Clark, 1997; Fiorillo & Nappo, 2011; Kifle & Kler, 2007; S. Kim, 2005; McDuff, 2001; Scott et al., 2005) have pointed out.

The reason for the gender paradox may be mainly because women have lower level of expectations and hence can easily be satisfied with their job (Clark, 1997). At this juncture, one may ask what if only relatively happy females are interested in joining the labor market. However, the question of self-selection bias is found to be false (Clark, 1997; Kifle & Kler, 2007).

According to Dekel and Pauzner (2011), the reason for such gender gap is because men and women have different motives while choosing their jobs, that is, “women shifting into their more satisfying jobs and forgoing income [...], while interestingly men shift into higher income jobs, forgoing job satisfaction”. Furthermore, Bender et al. (2005) confirms that the gender paradox exists even in female dominated workplaces since female workers “value job flexibility and so choose to dominate the workplaces that provide job flexibility”

- **Age**

As indicated in chapter two, the true relationship between age and job satisfaction is not resolved as different studies come up with different results. This research found a non-linear relationship

between age and job satisfaction index. Unlike the findings of Blanchflower and Oswald (2004); Clark et al. (1996); Fiorillo and Nappo (2011); Gazioğlu and Tansel (2002), the non-linearity relationship, in this case, is an inverted U-shaped relationship indicating job satisfaction index initially increases and then decreases. That is to say, in line with Saleh and Otis (1964), the youngest and oldest employees are the least satisfied.

- **Education**

It is observed that certificate and diploma holders (middle level education) reported the higher level of job satisfaction than lower and higher level. Individuals with lower level education (high school and below) do not significantly have different levels of satisfaction when compared to the individuals with Bachelor and master degree holders (higher level of education). Like previous studies (Clark & Oswald, 1995; Farooq et al., 2008), highly educated are less satisfied with their job. What is new here is, the least educated are also less satisfied. This may be because highly trained workers are underutilized and the least educated are overburdened.

- **Marital Status**

Looking at column 1 of table 4.4, it seems that married employees are more satisfied with their job than the non-married ones. However, when job related characteristics are controlled for, the difference between married and non-married employees vanishes. Similar to Scott et al. (2005) and Azim et al. (2013), this paper confirms that, keeping relevant factors constant, marital status and job satisfaction are not related.

- **Family Characteristics**

In line with Booth and Ours (2008), this study finds out that family characteristics do not significantly affect job satisfaction. Even though previous studies find a negative relationship – more people in a family, the less satisfied are the workers with their jobs–(Fiorillo & Nappo, 2011), this paper claims that family size does not have significant effect on job satisfaction of workers. Contrary to Booth and Ours (2008), neither the number of children nor having children under 14 affect workers job satisfaction.

- **Health Status**

Contrary to Ahn and García (2004), health is not an important factor in determining job satisfaction in Addis Ababa city administration. That is to say, there is no significance difference in job satisfaction between workers who rated their health status as healthy and not healthy

- **Housing**

Housing is found to be one of the predictors of job satisfaction. The coefficient for rental house is negative and statistically significant indicating that employees living in rental houses reported to have lower level of job satisfaction than individuals living in their own house. As discussed in chapter 2, this finding is in line with that of Fiorillo and Nappo (2011), and Keller et al. (1997).

4.2.2 Job Related Characteristics

- **Job Satisfaction across Sectors**

This paper also aims at analyzing whether there is a difference in job satisfaction between civil servants of different sectors. In column 2, it can be seen that employees working at land administration sector reported higher level of job satisfaction than other sectors.

Table 4.5: Gross monthly Salary by Sector

		Gross Monthly Salary in ETB				Total
		<1500	1500-3000	3000-4500	>4500	
Sector	Capacity Building	3(3.5%)	30(34.9%)	46(53.5%)	7(8.1%)	86(100%)
	Education	4(6.8%)	18(30.5%)	25(42.4%)	12(20.3%)	59(100%)
	Trade and Industry	1(1.5%)	18(26.5%)	47(69.1%)	2(2.9%)	68(100%)
	Land Administration	4(4.9%)	19(23.5%)	18(22.2%)	40(49.4%)	81(100%)
	MSE	2(2.5%)	26(32.9%)	46(58.2%)	5(6.3%)	79(100%)
	Total	14(3.8%)	111(29.8%)	182(48.8%)	66(17.7%)	373(100.0%)

Source: Field Survey, 2015

The cross-tabulation in Table 4.5 shows that almost half of the employees working at land administration sector earn more than 4500 ETB (Ethiopian Birr) per month. One may perhaps assume that the difference could be because land administration workers earn higher salary than others. However, in column 3, even after salary is controlled for, civil servants working in land administration department report higher level of job satisfaction. Hence, other factors other than salary are responsible for the difference in job satisfaction between workers from different sectors.

Land is a very important asset in Ethiopia, in general and in Addis Ababa, in particular. The high value of land makes the land sector is predominantly prone to corruption in Ethiopia (Lindner, 2014). Because of bribery and informal fees, income of civil servants working in land administration sector may be significantly higher than others which in turn could lead to higher level of job satisfaction. This may possibly be the reason for workers from land sector reported higher level of job satisfaction than others.

- **Job Satisfaction across Sub-cities**

One of the objectives of this paper is to analyze whether there is a difference in job satisfaction between civil servants of different sub-cities. This paper, after keeping other relevant factors constant, finds out that individuals working in Bole Sub-city to have higher level of job satisfaction.

- **Salary**

Many studies associate high pay with high level of job satisfaction. In this paper, however, salary does not have significant effect on job satisfaction. Brown et al. (2005) reported similar finding.

- **Job Security**

The variable job security measures how the respondents feel about the security of their job. As shown in table 4.4, the coefficient for individuals who feel insecurity is negative and statistically significant. This indicates that job satisfaction is higher for those with positive perception towards the security of their jobs. That is, similar to Blanchflower and Oswald (1999) and Gazioğlu and Tansel (2002), the more secure job is the higher job satisfaction.

- **Job Category, Workload and Work Experience**

With regards to job position, Table 4.4 indicates that managers are not significantly different from experts (professional workers) in their level of job satisfaction. That is, experts and those in supervisory positions reported the same level of satisfaction index. Regarding work load, workers whose workload is above their capacity reported lower level of job satisfaction. Contrary to Addy et al. (2012), underemployed civil servants seem to be as happy as workers with balanced work load.

Concerning work experience at current organization the survey question asked for how long they have been working for the current public service organization. The longer an individual works in the same organization, the lesser his/her level of job satisfaction.

- **Commuting and Working Environment**

Moreover, commuting for longer distance is associated with lesser level of job satisfaction. Employees who perceive the work environment in their organization as conducive reported a higher level of job satisfaction. Employees doing a task which is less than or equal to their capacity reported a higher level of job satisfaction than those working above their capacity.

Conclusion and Recommendation

This paper provides empirical analysis of the determinants of job satisfaction in Addis Ababa considering a variety of personal and job related characteristics. After an ordered probit analysis, some attention-grabbing findings have come into sight.

All in all, both individual and job characteristics explain job satisfaction of civil servants. These can be summed up as follows: women are more satisfied than men; job satisfaction has an inverted U-shaped relation to age; highly educated and least educated are less satisfied relative to intermediately educated; married are more satisfied than non-married; family characteristics do not have significant effect on job satisfaction of workers; health problems do not significantly affect job satisfaction; and living in rental house have lower job satisfaction than living in own house.

Furthermore, individuals working for Bole sub-city administration as well as those working in land administration sector have higher job satisfaction. More than half of civil servants were dissatisfied or highly dissatisfied with their pay. However, salary does not significantly affect overall job satisfaction index. What is more, good working environment produces higher levels

of job satisfaction; commuting for longer hours reduce job satisfaction; civil servants who worked for less than 5 years in current organization report higher level of job satisfaction than those worked for five years and more; job security increases job; and working above the workers capacity leads to lower level of satisfaction at work place.

Given the above conclusions of this study, special attention should be paid:

- *To improving working environment:* As indicated above working environment significantly affects the way workers feel about their jobs and ultimate consequence on their performance.
- *To facilitating paths to homeownership for civil servants:* Owning a home is an important predictor of satisfaction of workers at work place. However, as civil servants are especially vulnerable financially, they remain unable to become homeowners.
- *To supporting civil servants to become car owners:* The recent initiative by the government to provide transport service for civil servants is a very good beginning. However, as commuting for longer distance is still associated with lower level of job satisfaction, actions has to be taken on this front as well. One possible solution may be to design a mechanism that would help public servants get a car at an affordable price.
- *To improving civil servants earnings:* Even though salary does not significantly affect the overall job satisfaction index, many have expressed their dissatisfaction in terms of earning. The city administration should design a mechanism to improve earnings of civil servants. But that does not mean that salary should be increased for all. Rather, the city administration should put in place a performance-based salary structure which links payment and performance outcomes.
- *To regularly assessing job satisfaction:* Job satisfaction studies are not common in Ethiopia. To monitor employees' level job satisfaction as well as to know the main determinants of job satisfaction, it is recommended to conduct regular job satisfaction surveys.

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