

# Young People Engaged in Informal Employment in the Republic of Congo: Between Satisfaction and Indifference

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## Abstract

The aim of this study was to analyze the determinants of job satisfaction among young people engaged in informal employment in the Republic of Congo. Statistical and econometric analyses were conducted using data taken from the Transition to Working Life Survey (ETVA-2022). Using these data, we proceeded from conducted the econometric analysis to estimating a job satisfaction model using the “cmp” technique presented by Roodman (2011). The results reveal that salary is a determinant that exerts a positive effect on job satisfaction. On the other hand, living with a partner, not enjoying job benefits (maternity/paternity leave) and working more than 48 hours are factors that exert a negative impact on job satisfaction. In light of these results, we recommend that policy-makers continue developing policies to improve wages, increase young people’s access to job benefits and enhance their remuneration over time.

## Keywords

Satisfaction, Young People, cmp, Republic of Congo

## JEL Classification

J28, J21, J13, O55

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## 1. Introduction

Since the first International Labor Organization (ILO) report on decent work, ensuring meaningful employment for all workers has become a key objective in the design of employment policies in both developed and developing countries. However, this objective is in danger of being compromised by the predominance of informal employment and, consequently, of low-quality jobs in labor markets.

The coronavirus pandemic has further contributed to the deterioration of working conditions in both the formal and informal sectors of these markets. At the same time, the inequalities between men and women in labor markets have widened (ILO, 2022), which suggests a certain dissatisfaction among workers who feel victimized by inequalities. It is therefore interesting to measure the job satisfaction of workers, particularly those in the informal sector, as the existence of such job satisfaction would explain the difficulties observed in transitioning from the informal to the formal sector.

However, to answer this question, we must first address the issue of job choice. In other words, examining this issue begs the question of why workers take up informal employment. The reasons that are offered in the literature generally present individual preferences (wages in the informal sector are sometimes higher than those in the formal sector) as a justification for taking on informal employment. It is therefore possible to consider wages as a component of job decency (or quality). However, this is a very simplistic perspective regarding the other elements linked to working conditions that are important to workers. The existence of an informality trap can also keep workers in informal jobs. However, the fact that the informal-formal transition is low is not enough to demonstrate the undesirability of holding a job in the informal sector (Razafindrakoto et al., 2012).

To contribute to this literature, we adopt a different approach. We examine the level of satisfaction derived by working in the informal sector. Job satisfaction appears to be a good indicator for assessing the quality of jobs in the informal sector, as it helps us to understand the reasons behind mobility in the labor market (Freeman, 1978). Consequently, job satisfaction offers useful information about economic life (Bruno et al., 2013), particularly as dissatisfaction leads to high resignation rates and low productivity at work (Razafindrakoto and Roubaud, 2013).

Long ignored by economists due to its subjective nature, the study of job satisfaction has received renewed interest since the work of Easterlin (1974). Since then, a number of studies have been conducted to analyze the causes of job satisfaction (Blanchflower and Oswald, 1998; Clark, 2001), its determinants (Blanchflower et al., 1993; Davoine, 2007; Ngassa and Ndinga, 2019), and its consequences, including its influence on job performance, seniority and career mobility (Freeman, 1978; Lévy-Garboua et al., 2007).

It should also be pointed out that identifying the determinants of job satisfaction is a complex exercise since the level of satisfaction depends on the degree of congruence between aspirations, individual characteristics and job characteristics.

While identifying the determinants of satisfaction is a complex process, the theoretical treatment of the question in the literature remains controversial. On the one hand, there is the so-called monetary approach, which is based on the standard labor market model and the theory of compensating differences (Rosen, 1986). This approach maintains that the central element of individual job satisfaction is remuneration. On the other hand, the nonmonetary approach, which

comprises the theoretical considerations of Souza-Poza and Souza-Poza (2000) and Danzer (2019), assumes that job satisfaction results from the combination of several elements, such as salary, education, and job security.

Empirically, the results in the literature are divided, with some studies finding that working in the informal sector leads to lower levels of job satisfaction (Pagés and Madrigal, 2008; Raquel Bernal, 2009). On the other hand, despite poor working conditions, job insecurity and the absence of a social benefits system, other studies have found that workers in the informal sector are inclined to declare themselves satisfied (Beuran and Kalugina, 2005; Razafindrakoto and Roubaud, 2013).

The contradictions that can be seen in the literature regarding these perspectives indicate that there is still a need to focus research on job quality from the perspective of job satisfaction. Indeed, a review of this literature reveals a limited number of studies that use developing countries, particularly African countries, as their research context. It is therefore important to pursue further investigation into the determinants of job satisfaction, especially as these determinants can change from one field of investigation to another.

To this end, the Republic of Congo appears to be an interesting research target for the analysis of job satisfaction for at least three reasons. First, the Congolese labor market is dominated by informal employment. The results of the Employment and Informal Sector Survey (EESIC-2012) show that nearly 74% of the working population are employed in this sector. Informal employment also accounts for 85.6% of youth employment according to the results of the 2022 Congo Transition to Working Life Survey (ETVA-2022). This shows that young people in the Republic of Congo have difficulty gaining access to formal employment. The informal sector is characterized by its inability to offer its workers any rights and even fewer pecuniary and nonpecuniary benefits, such as paid vacations and job security. The formal public and private sectors, which employ 19.4% and 5.2% of the population, respectively, also offer few employment rights and benefits.

The same source reveals that over half of young Congolese workers do not receive employment rights and benefits. For instance, only 41.8% of young employees are provided a travel allowance in their jobs (ETVA-2015). According to the results of the EESIC-2012, 41.8% of people employed in the formal sector work excessive hours; i.e., they work more than 48 hours a week.

Second, while one of the objectives of decent work is to ensure equal treatment and opportunities for all in the labor market, this objective is far from being achieved due to the predominance of inequality and discrimination in the Congolese labor market. In fact, women face greater difficulties in gaining access to formal employment. Just over seven out of ten women are self-employed (75%), compared with just five out of ten men (52%). In terms of remuneration, there is a significant gap between women and men in the Congolese labor market. Men earn approximately twice as much as women (World Bank (WB), 2017), which can have a negative impact on the levels of job satisfaction among

the discriminated population.

Finally, in the Congo, as in other sub-Saharan African countries, the working population is strongly represented in the informal sector, despite the poor working conditions in that sector (ILO, 2000), particularly in agriculture, where processes are rudimentary due to a modest level of capital and limited access to technology and credit compared to those of developed countries. Moreover, income irregularity and the income differential between the formal and informal sectors, which support the claim that informal jobs are of lower quality than formal jobs, do not rule out the existence of job satisfaction in this sector. After all, monetary benefits are not the only criterion by which jobs are assessed (Razafindrakoto et al., 2012); hence, there is merit in understanding this satisfaction.

Moreover, the scarcity or virtual nonexistence of work in the African countries south of the Sahara, particularly in the Congo (Mulinge and Muelle, 1998; Razafindrakoto and Roubaud, 2013; Ngassa and Ndinga, 2019) reinforces the need to further explore this line of research. To this end, this study represents an attempt to answer the following question: what are the determinants of job satisfaction among young Congolese workers in the informal sector? Its aim is to identify the determinants of job satisfaction among young people in the informal sector. The hypothesis defended in this work is that salary and contract type have negative impacts on job satisfaction in the informal sector. In addition to the introduction, this article is structured around a literature review, methodology, a presentation of results and a conclusion.

## 2. Brief Literature Review

In this section, we briefly review the literature on job satisfaction in the informal sector. This literature presents two contradictory perspectives: One perspective sees informal jobs as sources of job satisfaction for workers. From the other perspective, workers may be indifferent or even dissatisfied with these jobs.

To this end, related theories and results are presented in this paper. It should be noted, however, that in the absence of abundant literature on the subject, we also present work that considers the labor market as a whole.

### 2.1. Informal Jobs: A Source of Satisfaction for Young People

Various types of workers, such as women and young people, might declare themselves satisfied with informal jobs due to their difficulties in gaining access to the formal sector. For women, the informal sector offers the opportunity to combine supplementary income with domestic activities, and for young people leaving the education system, it represents an alternative to acquiring professional qualifications through apprenticeships or on-the-job training.

Theoretically, this satisfaction can be explained, according to Souza-Poza and Souza-Poza (2000), by the balance between “work-role inputs” (i.e., what the individual brings to the job, such as education, effort, working time, etc.) and “work-role outputs” (i.e., what the individual receives from the job, such as sala-

ry, nonmonetary rewards, status, autonomy, independence, social recognition, etc.). Given that there are two factors that act independently in the workplace, namely, extrinsic factors (remuneration, work relations, job security, prestige, etc.) that are related to working conditions, and intrinsic factors (achievements, recognition of achievements, the work itself, promotion, etc.) that are related to motivation. Herzberg (1966) claimed that job satisfaction depends on intrinsic factors.

Based on these theoretical elements, the satisfaction of workers in the informal sector stems from the autonomy, independence and time flexibility offered by the jobs in this sector, especially for people with competing demands on their time, such as parents, women and young students (Maloney, 2004).

On the other hand, neoclassical labor market theory can explain the existence of job satisfaction in the informal sector. Although work generates disutility by reducing the time that can be devoted to leisure (Perrot, 1992), according to neoclassical labor market theory, work is sought solely for the wages it provides. Job satisfaction is therefore linked to remuneration. The reservation wage advocated by this framework serves as the demarcation between a “decent” job and one that pays too little (Davoine, 2007). A quality job, and therefore a satisfying one, would be a job that the unemployed would accept.

According to this theory, satisfaction can be derived from the wages earned in the informal sector. To a certain extent, such wages enable people to escape poverty and unemployment. In the case of unemployment, it avoids the total obsolescence of human capital, which is a source of much frustration regarding the investments made. Moreover, with the downgrading issues that are omnipresent in the formal sector, accepting a job in the informal sector would represent a voluntary strategy and/or decision, particularly for young people, with to the aim of acquiring professional experience (or a qualification), especially when such downgrading results from a lack of experience. Under these conditions, despite the wage gap between the formal and informal sectors, young workers would be inclined to declare themselves satisfied with informal jobs. However, it should be noted that some informal sectors can sometimes offer higher wages than those from formal sectors (Razafindrakoto et al., 2012).

With the understanding that job satisfaction is a reflection of utility, Lévy-Garboua et al. (2007) argue that job satisfaction is the result of workers’ utility comparisons between their current job and external opportunities. Thus, if working in the informal sector is a strategy for acquiring experience or qualifications, young workers, who often face discrimination regarding access to formal jobs, can declare themselves satisfied in the informal sector. In other words, certain categories of workers (young people and women) who have a preference for formal employment voluntarily move from informal to formal jobs (Pagés and Madrigal, 2008).

With this in mind, Pagés and Madrigal (2008) apply a probit model and find that women working in the informal sector in Honduras are more likely to have greater job satisfaction than men. In addition, workers with higher levels of

education report higher levels of job satisfaction. The authors also find that a 10% increase in income increases the probability of job satisfaction by 0.5%. Similarly, utilizing a panel of data from 8 capital cities (Niamey, Ouagadougou, Dakar, Bamako, Cotonou, Lomé, Abidjan and Antananarivo) in sub-Saharan Africa, [Razafindrakoto and Roubaud \(2013\)](#) apply the logit model to find that Senegalese workers regard working in the informal sector positively. This implies the existence of job satisfaction for these workers. Their results also highlight significant links between objective job characteristics, such as promotion opportunities, training, autonomy, working relationships, pay and working hours and the level of satisfaction that individuals express with their jobs.

Analyzing the job satisfaction of young people in four Eastern and Southern African countries (Madagascar, Malawi, Uganda and Zambia), where the majority of young people work in the informal sector, [Mckay et al. \(2018\)](#) show through the use of an ordered probit model that the head of household enjoys a high level of job satisfaction than other household members. Union membership has a positive and statistically highly significant effect on job satisfaction in all countries aside from Uganda. In addition, salary had a positive effect on job satisfaction in Madagascar and Zambia, but surprisingly not in the other countries under study. In addition, having monetary benefits in a salaried job is positively associated with satisfaction.

On the other hand, studies that take into account the labor market as a whole tend to highlight salary, age, having children and a spouse, and contract type as the determinants of job satisfaction ([Redmond and McGuinness, 2019](#); [Ngassa and Ndinga, 2019](#)).

Finally, while jobs in the formal sector appear to be more popular with young people in regard to working conditions and benefits, the above-referenced literature shows reveals job satisfaction in the informal sector. However, when compared with the formal sector in regard to working conditions and benefits, young people may nonetheless express indifference or even dissatisfaction with informal jobs. The theories and empirical work that underpin this idea are presented in the next section.

## **2.2. Informal Jobs: Indifference among Young People**

Indifference and even dissatisfaction with the informal sector can be explained by the compensatory wage theory ([Rosen, 1986](#)), which focuses on remuneration as a source of job satisfaction. The theory postulates that a wage supplement is offered to compensate for the degree of arduousness (risk of accidents, occupational illness, pace of work, work environment, etc.) of jobs. On the other hand, a worker who enjoys a certain degree of prestige in his or her job is paid less.

Based on this theory, the sense of indifference with the informal sector stems from the absence of a wage premium in either formal or informal sector jobs in some developing countries ([Razafindrakoto et al., 2012](#)). Therefore, given identical job characteristics, working in the informal sector provides the same degree

of satisfaction as working in the formal sector.

In a similar vein, equity theory (Adams, 1965) suggests that employees evaluate what they bring to their jobs (input) against what they get out of them (result/outcome) and then compare their input-outcome ratio with the input-outcome ratio of other employees. If they perceive that their ratio is equal to that of other employees, then a state of equity exists.

When applied to satisfaction in the informal sector, this theory shows that workers in the informal sector react with indifference on discovering that their compensation situation was equivalent to that of other workers with the same characteristics in both the informal and formal sectors.

On the other hand, dissatisfaction can arise from a sole reliance on segmentation theory (Doeringer and Piore, 1971). This theory, which segments the labor market into two compartments, attributes good working conditions to the primary sector (which is often full of formal jobs) and poor working conditions to the secondary (informal) sector. As a result, the mobility between the two sectors is reduced. Given the working conditions (lack of social security, insecurity, lack of stability) that prevail in the informal sector, these workers may be dissatisfied. Moreover, in times of crisis, the informal sector does not guarantee job stability and is therefore more likely to lead to a return to unemployment.

However, in terms of results, there are very few studies that find that workers in the informal sector are indifferent toward their jobs. By way of illustration, Rakotomanana (2011), exploring data from the Madagascar 1-2-3 survey, uses the ordered probit model to show that working in the formal or informal private sector provides the same level of satisfaction regardless of the type of workers surveyed (men or women). This result is also found by Falco et al. (2011) through the use of data from a Ghanaian panel. When we look at an individual's status in the labor market, being unemployed or working in the informal sector has no significant effect on the level of job satisfaction (Rakotomanana, 2011). Moreover, salaried workers of a large company with no job benefits in the informal sector appear to be indifferent toward their jobs (Pagés and Madrigal, 2008).

Applying an ordered probit model to data from four Eastern and Southern African countries (Madagascar, Malawi, Uganda and Zambia), Mckay et al. (2018) find that individuals with a secondary education are indifferent toward the informal sector. Similarly, individuals living in urban areas in Malawi and Zambia express indifference to informal sector jobs. This indifference is also observed by Razafindrakoto and Roubaud (2013) at the level of trade union members in eight sub-Saharan African countries.

Some studies have also shown that workers experience dissatisfaction with the informal sector. To this end, the study by Razafindrakoto and Roubaud (2013) showed that working in the informal sector is judged negatively in Ouagadougou. This result seems to be robust, as in a recent study, Huang et al. (2023) show that working in the informal sector negatively affects subjective well-being. Additionally, Razafindrakoto and Roubaud (2013) find a negative link between



union membership and job satisfaction in Dakar. This negative sentiment is also observed among women in Madagascar (Mckay et al., 2018). Age negatively influences job satisfaction, but above a certain threshold, the opposite effect is observed (Rakotomanana, 2011), revealing a U-shaped relationship between age and satisfaction.

The relationship between company size and satisfaction contrasts with the results of studies on developed countries (Gazioglu and Tansel, 2006), as Mckay et al. (2018) show that workers in small companies report dissatisfaction. Similarly, in urban areas, workers express dissatisfaction with the informal sector.

In sum, when considering the labor market as a whole, it is found that the number of hours worked (Redmond and McGuinness, 2019; Ngassa and Ndinga, 2019), company size, marital status (Ngassa and Ndinga, 2019), health status, period of unemployment (Davoine, 2007) and income (Clark and Oswald, 1996) are all factors that negatively affect job satisfaction.

### **2.3. A Few Lessons**

Three lessons can be drawn from the abovementioned literature. First, the theoretical treatment of satisfaction leads to transdisciplinarity due to the rehabilitation of psychological principles in economic studies (Simon, 1972) and a conception of utility that is based on subjective experience rather than objective manifestations (Kahneman et al., 1997). Indeed, the theoretical explanations of job satisfaction go beyond the traditional neoclassical framework, which focuses on remuneration as the sole indicator of job satisfaction (job quality). This framework is based on the hypotheses of perfect competition in the labor market, while admitting to the existence of wage compensation in the case of bad jobs (vulnerable, precarious, etc.). However, in developing countries, this reality is not very compatible, as the disadvantages are cumulative and noncompensatory between the formal and informal sectors in developing countries (Razafindrakoto et al., 2012).

Second, depending on the context and specific characteristics of each labor market, the degree of job satisfaction in the informal sector varies from one country to another. This makes it impossible to generalize the findings, especially as the empirical treatment leads to several methodologies. To this end, considering the nature of job satisfaction, the authors use either linear or ordered regression. As a reflection of utility, such a regression can be cardinal or ordinal. However, the cardinality hypothesis requires more demanding empirical treatment. If these requirements are not properly handled, they can lead to prohibited results.

Finally, the two lessons above show that the question of job satisfaction remains open. Only empirical analysis can be used to provide answers and settle the debate. This is why we propose analyzing the determinants of job satisfaction for young workers in the Republic of Congo, where no study has ever been conducted on this topic.



### 3. Methodology

#### 3.1. Presentation of Data and Measurement of Job Satisfaction

This work uses data from the Survey on Transition to Working Life (ETVA), which was carried out in 2022 in the Republic of Congo. This survey, which covered 5000 young people aged 15 to 35 from a sample of 4170 households, contains a rich set of variables relating to family background, level of education, employment history and current employment status, as well as the future employment prospects of unemployed young people and students. It is therefore extremely promising for analyzing the determinants of job satisfaction, as it deals with questions that are directly related to employment on the one hand while providing information on job satisfaction on the other.

Regarding the measure of job satisfaction, there are two types of methods used for exploring job satisfaction data. These can be either unidimensional or multidimensional. The unidimensional method, also known as the global measure of job satisfaction, which is commonly used by economists (Yin, 2015), consists of asking employees to carry out a comprehensive evaluation of their work (Nielsen and Smyth, 2008), whereas the multidimensional method asks employees to report their job satisfaction on specific aspects of their work since work is a complex good.

Each of these methods has advantages and disadvantages. The unidimensional method, which enables employees to judge work on all its characteristics, offers a good summary of the information conveyed about work (Clark, 1998). However, it is often criticized for failing to provide detailed information regarding the level of satisfaction with different dimensions of work. Given that the fact that employees can be satisfied with one facet of work and dissatisfied with another is widely recognized, the multidimensional method offers a clearer picture of job satisfaction. However, this method suffers from the fact that the concept of job satisfaction is often limited to certain aspects of work, while work has many aspects. This leads to the omission of some useful information when transforming dimension-specific job satisfaction into a global perspective.

In this study, we apply the unidimensional measure since capturing all aspects of work with the ETVA-2022 would be difficult. This also allows us to avoid a loss of information when constructing an overall indicator of job satisfaction. To approach job satisfaction, we start with the following question: “How satisfied are you with your main job?”

#### 3.2. Modeling and Presentation of Variables

As a reflection of utility, job satisfaction can also be called work-life satisfaction. With this in mind, Clark and Oswald (1996) show that an individual's life utility function is defined as follows:

$$v = v(\mu, \dot{u}) \quad (1)$$

where  $v$  represents a function of the utility of an individual's life,  $\mu$  is the utility

of work and  $\bar{u}$  is the utility of other aspects of the individual's life. Knowing that job satisfaction also reflects the individual's perception of well-being in his or her job, the reported well-being function associated with job satisfaction  $j$  takes the following form:

$$\mu_j = h_j(\mu(y, i, z)) + e_j \quad (2)$$

where  $\mu_j$  denotes the number or a self-reported level collected in the survey associated with job satisfaction  $j$ , the function  $\mu(\dots)$  is the respondent's true well-being in regard to job satisfaction  $j$  and is observable only for the individual surveyed.  $h(\dots)$  is a nondifferentiable function relating true well-being to declared well-being in regard to job satisfaction  $j$ ,  $y$  is the individual wage,  $i$  and  $z$  are individual and job characteristics, and  $e$  is an error that encompasses the inability of individuals to accurately communicate their level of job satisfaction.

Equation (2) reflects the neoclassical model in which the utility of work increases with income,  $y$ , and decreases with hours worked. However, this utility also depends on individual and professional characteristics.

Alternatively, Equation (2) can be expressed as follows:

$$JS_i^* = \alpha + \lambda y_i + \delta Z_i + \phi W_i + \varepsilon_i \quad (3)$$

where job satisfaction  $JS$  is the reported well-being for individual  $i$ ,  $y$  is the individual wage; the vector  $Z$  is the vector of individual characteristics; and  $W$  is the vector of job characteristics in addition to the wage.

Knowing that only employed individuals can express satisfaction with their jobs, the econometric model must take into account potential selection bias. To do this, we use a model that is similar to Heckman's (1979) two-stage model. In the first stage, we estimate a labor market participation equation. This is because, in making the decision to participate in the labor market, the individual can assess his or her job. This first equation, which models the probability of an individual participating in the labor market, is known as the selection equation. For this individual, the variable  $Y$  is equal to 1 if he or she decides to participate in the labor market and equal to 0 otherwise. The decision to participate in the labor market is based on the difference between the expected benefit and the cost of being a worker. This unobserved difference refers to a latent variable  $Y^* = \beta_i Z_i + \varepsilon_i$  (4), where  $Z$  is the vector of explanatory variables,  $\beta$  is the vector of parameters to be estimated and  $\varepsilon$  is the error term that follows a normal distribution  $N(0, 1)$ .

The second equation, which is used to identify the determinants of satisfaction, is called the substance equation. Thus, Equation (3), whose estimation concerns only the employed, can be written as follows:

$$JS_i^* = \alpha + \lambda y_i + \delta Z_i + \phi W_i + imr + \varepsilon_i \quad (4)$$

However, instead of proceeding with the Heckman estimation technique, we use the "conditional mixed process (cmp)" estimation technique developed by Roodman (2011). The cmp universe includes the Heckman selection model. In-

deed, this technique has the advantage of dealing better with the selection, endogeneity and simultaneity biases that can exist among the equations. It also leads to more efficient estimates than Heckman's two-stage technique, which cannot simultaneously account for several equations that have dependent variables of different natures (Ngassa, 2018a).

Furthermore, based on the literature, notably on the work of Assioro et al. (2022), Okiemy and Etsiba (2021), Ngassa (2018b) and Yin (2016), variables such as gender, marital status, education level, household financial situation, number of children and department were selected for the job access equation. For the job satisfaction equation, we use the variables salary (Ngassa and Ndinga, 2019; Mckay et al., 2018), number of hours worked (Ngassa and Ndinga, 2019), job advantage (Razafindrakoto and Roubaud, 2013), contract (Ngassa and Ndinga, 2019; Davoine, 2007), company size (Sam, 2018; Davoine, 2007), union (Goerke, 2020), marital status (Davoine, 2007; Clark & Oswald, 1996), education level (Ngassa and Ndinga, 2019; Gazioglu and Tansel, 2006), age group (Clark & Oswald, 1996; Mora et al., 2007) and gender (Lillo-Bañuls and Casado-Diaz, 2015; Bessière, 2003). The relationship of these factors with job satisfaction is documented below.

From the literature, we note that there are three points of view regarding the relationship between age and job satisfaction. First, there is a U-shaped relationship between age and job satisfaction; i.e., people report less job satisfaction when they are young, which then increases and then decreases over time (Clark & Oswald, 1996).

Furthermore, age can positively or negatively affect job satisfaction (Martin and Shehan, 1989; Mora et al., 2007). These effects can be explained by life-cycle and career-stage models, which posit that employees at different stages of their careers may have different attitudes toward work and therefore different levels of job satisfaction. In this study, age is captured in two ways, namely, the age group and its square, to verify the U-shaped relationship between age and job satisfaction.

The relationship between gender and job satisfaction leads to a paradox in which women are, regarding equal work, more satisfied than men (Bessière, 2003). Thus, women are expected to be more satisfied in their jobs than men (Lillo-Bañuls and Casado-Diaz, 2015). In addition, the marital status variable is used in the model to test whether married people are more satisfied in their jobs than unmarried people, despite the burdens that they face (Clark & Oswald, 1996).

The relationship between education and job satisfaction highlights two distinct findings. First, education positively affects job satisfaction. This is because more educated individuals have an advantage in finding jobs with higher intrinsic and/or extrinsic rewards than less educated individuals. As a result, they demonstrate higher levels of job satisfaction (Yin, 2015). Second, lower satisfaction can be reported by more educated individuals given their high levels of job

expectations (Gazioglu and Tansel, 2006). We expect those with higher education would report higher levels of satisfaction than less-educated individuals.

According to the neoclassical model, jobs are sought for the wages they bring, and as wages increase, so do job satisfaction. However, job satisfaction may be lower when an individual compares his or her salary with that of a reference group. In this study, salary should positively affect job satisfaction (Mckay et al., 2018). The contract variable, under the conjecture that some informal jobs offer contracts, is introduced into the model to check whether permanent employees, who are therefore unable to be unfairly dismissed, are more satisfied with their jobs than temporary employees.

The company size variable is introduced into the model to test whether the employees of large companies are less satisfied than employees of small companies, as suggested by Idson (1990). We therefore expect a negative effect for employees of large companies on job satisfaction (Lillo-Bañuls and Casado-Diaz, 2015; Sam, 2018). In addition, the number of hours worked variable is introduced into the model to verify the neoclassical postulate, which posits that as the number of hours worked increases, the utility of the job decreases, and therefore, the level of job satisfaction decreases. This variable is expected to have a negative effect on job satisfaction.

Introducing the job advantage variable into the model enables us to check whether employees who have benefited from maternity/paternity leave declare themselves to be more satisfied than those who have not, especially since a satisfying job must offer each employee the possibility of keeping his or her job regardless of the vagaries of his or her personal life. Consequently, this variable is expected to have a positive effect on job satisfaction.

At the same time, the union variable is introduced into the model to test whether union membership increases worker satisfaction, although there is some empirical evidence that union members exhibit low levels of job satisfaction (Goerke, 2020). We therefore assume that workers in the informal sector can form a union. This variable should positively influence job satisfaction.

Finally, the job satisfaction variable, which is an endogenous variable, was captured through the abovementioned question. Initially, it had 6 modalities, but this was reduced to 3 modalities as follows: 1 “dissatisfied (basic category)”, 2 “moderately satisfied” and 3 “satisfied”, due to a small number of instances of certain response modalities.

Prior to estimating the model, it is essential to describe the various variables selected. This description is presented in **Table 1** below.

The results displayed in **Table 1** show that 65.86% of young people have access to jobs in the informal sector. Among these young people working in the informal sector, there are more women (51.02%). The average age of these young people is twenty-two years, ten months and thirteen days. However, most (60.57%) of these young people live in households with a difficult financial situation.

**Table 1.** Description of the selected variables.

<b>Qualitative variables</b>	<b>Frequency</b>
<b>Access to informal employment</b>	
Yes	65.86
No	35.14
<b>Satisfaction</b>	
Dissatisfied	37.41
Moderately satisfied	50.19
Satisfied	12.41
<b>Marital status</b>	
Married	18.28
Unmarried	81.72
<b>Have children</b>	
Yes	35.94
No	65.06
<b>Level of education</b>	
Primary	37.38
Secondary 1	23.05
Secondary 2	30.04
Higher education	9.53
<b>Gender</b>	
Female	51.02
Male	48.98
<b>Contract</b>	
Indefinite duration	56.35
Limited duration	43.65
<b>Prior maternity/paternity leave</b>	
Yes	33.88
No	66.12
<b>Firm size</b>	
Small	82
Medium	12.50
Large	5.50
<b>Trade union</b>	
Yes	9.79
No	90.21

**Continued****Financial situation**

Difficult	60.57
National average	31.73
Easy	7.69

**City**

Brazzaville	38.24
Pointe-Noire	10.40
Other	51.36

**Number of working hours**

Within 48 hours	2.27
More than 48 hours	97.73

<b>Quantitative variables</b>	<b>Mean</b>	<b>Standard deviation</b>
Age	22.87	5.74
Salary	104 085	249 027

Source: Author, based on ETVA-2022 data.

Regarding marital status, these results reveal that the majority (81.72%) of young people are not married. Very few (35.94%) had children. Furthermore, in the Congolese informal sector, individuals with a higher level of education are not very representative (9.53%). These young people primarily live in other cities (51.36%).

On the other hand, in regard to job assessments, young people report being moderately satisfied (50.19%). Among them, 56.35% have an open-ended contract, and the majority (97.73%) work longer than the needed working hours and receive an average salary of 104085 FCFA.

As a result, young people tend to work for smaller companies (82%). However, in these jobs, a low percentage of young people benefit from maternity/paternity leave (33.88%). Very few (9.79%) young people working in the informal sector belong to a union.

## 4. Model Results

### 4.1. Presentation of Results

To interpret and discuss the results, the estimated model must first be validated. To this end, we use two tests, namely, Wald's  $\chi^2$  and Wald's test. The estimation of the model representing the determinants of young people's job satisfaction shows that the Wald  $\chi^2$  value is large (198.70), and the associated probability is less than 0.001. This means that the selected variables are consistent with each other, which further indicates that the variables selected are significant overall and shows the extent to which each explanatory variable is significantly

related to the variable explained (Wald test associated with each of the variables). Furthermore, the “Atanhrho” variable, which is similar to the inverse of the mills ratio, indicates that the labor market participation equation is linked to the job satisfaction equation. In other words, the satisfaction equation cannot be estimated independently of the labor market participation equation.

Based on these two tests of the model’s validity, namely, Wald’s  $\chi^2$  and Wald’s test, we can conclude that the estimated model is sound, and its results, which are presented in **Table 2** below, are open to interpretation and discussion.

The results displayed in **Table 2** highlight two distinct types of determinants of job satisfaction. On the one hand, job characteristics such as salary positively affect satisfaction. This variable is significant at the 5% level. On the other hand, individual and job characteristics such as working more than 48 hours, not taking maternity/paternity leave and living with a partner have a negative impact on job satisfaction. These variables are significant at the 10% level. For the job access equation, the results show that women, married people and individuals with secondary education are more likely to take jobs in the informal sector. Conversely, living in Brazzaville and Pointe-Noire reduces the chances of taking a job in this sector. These variables are significant at the 1% and 5% levels, respectively. It should be noted, however, that the interpretation and discussion in the following section is solely focused on the results of the job satisfaction equation. Additionally, the coefficients of this model, using the cmp technique, are interpreted as marginal effects (Roodman, 2011).

## 4.2. Interpretation and Discussion of Results

The estimation of our model shows that salary positively affects satisfaction. This result shows that a one-unit increase in salary increases the probability of job satisfaction by 25.9%. This result is in line with the findings of Pagés and Mardrigal (2008) and Mckay et al. (2018) but contradict the findings of Clark and Oswald (1996). This result is explained by the neoclassical microeconomic theory of the labor market, in which employment is prized for the wages it provides.

On the other hand, the job satisfaction of individuals who work more than 48 hours decreases by 39.6%. This can be explained by the compensatory wage theory (Rosen, 1986), where the longer the working hours are, the more that workers need to be paid a wage supplement. However, in the informal sector, due to the noncompliance with labor legislation, no wage supplement is offered for excessive working hours. This result is in line with the findings of Redmond and McGuinness (2019) but contradicts those of Razafindrakoto and Roubaud (2013). In the same vein, the probability of being satisfied with the job decreases by 9.5% when young people do not benefit from any employment advantage, in this case, maternity/paternity leave. This drop in satisfaction is explained by the lack of reconciliation between maternity (paternity) and work. In other words, it is difficult to return to work when these young people give birth. This is particularly true in the informal sector, where monetary and nonmonetary rewards are



**Table 2.** Estimation results of the job satisfaction model for young people engaged in informal employment.

Access to informal employment	Coefficients	Probability
<b>Age group</b>		
15 - 19 years		Ref
20 - 24 years	-0.099	0.565
25 - 29 years	-0.221	0.464
30 - 35 years	0.114	0.801
<b>Age squared</b>	-0.004	0.943
<b>Gender</b>		
Male		Ref
Female	0.184**	0.039
<b>Marital status</b>		
No married		Ref
Married	0.214**	0.049
<b>Level of education</b>		
Primary		Ref
Secondary 1	0.287*	0.063
Secondary 2	-0.001	0.993
Higher education	0.002	0.985
<b>Financial situation</b>		
Difficult		Ref
National average	-0.003	0.972
Easy	0.041	0.824
<b>City</b>		
Other		Ref
Brazzaville	-1.182***	0.000
Pointe-Noire	-0.299**	0.030
<b>Children</b>		
No		Ref
Yes	0.096	0.351
<b>Consistency</b>	0.664**	0.002
Job satisfaction		
<b>Age group</b>		
15 - 19 years		Ref
20 - 24 years	0.031	0.944
25 - 29 years	0.335	0.641
30 - 35 years	0.818	0.425

**Continued**

<b>Age squared</b>	-0.095	0.459
<b>Gender</b>		
Male		Ref
Female	0.031	0.893
<b>Marital status</b>		
No married		Ref
Married	-0.385*	0.085
<b>Level of education</b>		
Primary		Ref
Secondary 1	0.052	0.872
Secondary 2	-0.001	0.998
Higher education	0.223	0.458
<b>Maternity/paternity leave</b>		
Yes		Ref
No	-0.599*	0,0095
<b>Lnwage</b>	0.259**	0.010
<b>Number of working hours</b>		
Less than or equal to 48		Ref
More than 48 hours	-0.396*	0.065
<b>Trade union</b>		
Yes		Ref
No	-0.219	0.585
<b>Contract</b>		
Indefinite duration		Ref
Limited duration	0.071	0.730
<b>Firm size</b>		
Small		Ref
Medium	0.049	0.856
Large	-0.044	0.898
Cut_1_1	-0.498	0.552
Cut_1_2	0.907	0.294
Atanhro_12	-1.040**	0.014
Number of observations		1075
Wald chi <sup>2</sup> (26)		198.70
Prob > chi <sup>2</sup>		0.000
Log likelihood		-677.94108

Source: Author, based on ETVA-2022 data. Note: \*\*\*, \*\*, \* Represent statistical significance at the 1%, 5% and 10% levels, respectively.

rarely offered to workers. It can also be explained by the work-role inputs/work-role outputs theory developed by Souza-Poza and Souza-Poza (2000). Finally, the results also reveal that the probability of being satisfied with one's job decreases by 38.46% when individuals are married. This result can be explained by the financial constraints faced by people involved in relationships. In other words, wages in the informal sector are to some extent insufficient for meeting household needs.

However, these results show that young people experience mixed job satisfaction regarding employment in the informal sector in the Republic of Congo. Thus, the results can be interpreted as follows: mixed effects of occupational and individual characteristics on subjective job quality.

In the Congo, when job characteristics contribute positively to subjective job quality, the results show that this positive effect is due to wages. This can be explained by unemployment. Indeed, nearly 66% of unemployed Congolese youth have been looking for work for more than a year, which supports the structural unemployment of this population category (ETVA-2022). Additionally, with the level of poverty affecting these young people (WB, 2017) and the difficulties in gaining access to the formal sector, they turn to jobs in the informal sector. Thus, entering the informal sector is a strategy for coping with poverty and avoiding the total obsolescence of human capital. Moreover, working in the informal sector is a way for young people to gain professional experience, especially as one of the obstacles to accessing employment is a lack of professional experience (ETVA-2022). Once they have gained access to informal employment, they can only be satisfied with these jobs. In fact, the wages they earn go some way toward lifting them out of poverty and have the merit of distancing these young people from the uncertainties of unemployment. However, the salary level thus afforded does not seem to be sufficient for enabling young couples to meet their expenses. This explains the higher levels of job dissatisfaction reported by newlyweds.

On the other hand, job characteristics such as working more than 48 hours and the absence of job benefits such as maternity/paternity leave have a negative impact on subjective job quality. First, when young people work more than 48 hours, they are more likely to declare themselves dissatisfied. This is because jobs in the informal sector do not offer workers a wage supplement. Second, in the absence of maternity/paternity leave, young people are dissatisfied. These results, which confirm the poor quality of jobs in the informal sector, can be explained by noncompliance with labor legislation. In this respect, the ETVA-2022 results show that very few young people benefit from paternity/maternity leave (29.9%). Therefore, we should understand that for jobs in the informal sector, paying overtime and granting maternity/paternity leave to workers can seem like a cost for employers.

## 5. Conclusion

The formalization of informal employment remains a major concern for gov-

ernments and international organizations. Therefore, to understand the difficulties associated with the low level of formalization of jobs in this sector, we need to understand to some extent why people work in informal jobs. One way to answer this question is to ask these individuals about their perspectives on informal sector jobs. The aim of this article is to identify the determinants of job satisfaction among young Congolese in the informal sector. Using data from ETVVA-2022 and Roodman's (2011) cmp technique, salary emerges as a determinant that exerts a positive effect on young people's job satisfaction. However, the hypothesis formulated in the context of this work has not been verified, as the type of contract proved to be nonsignificant. On the other hand, living with a partner, not taking maternity/paternity leave and working more than 48 hours all had a negative and significant influence on satisfaction. In view of these results, we recommend that policy-makers continue the policy of improving wages, providing employment benefits and compensating for overtime in the informal sector. In short, certain provisions of the labor code should be enforced in this sector. For future research, it would be advisable to ask informal sector workers about their satisfaction with certain aspects of work, such as job security.

### Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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