

Factors Influencing the Compliance with Decent Work in Coffee Production and Primary Processing in Kenya

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Abstract: Coffee is one of the cash crops that contributes more to the Kenya's exports and also provides 30% of agricultural jobs. However, casual workers within coffee estates still get challenging employment conditions including long working hours, unfair wages, limited work security, and lack of collective bargaining that results in poor living standards. Moreover, no research that shows factors influencing compliance with decent work in the Kenyan coffee. This study sought to provide new literature about factors influencing decent work compliance in production and primary processing within Coffee estates in Kiambu county. Snowballing sampling method was used to collect data among 385 respondents from four coffee estates. Multivariate probit model was used to determine the significance of hypothesized factors to the compliance of decent work. Results showed that age, gender, marital status, education, the position of an employee, estate ownership, the estate size, coffee marketing channel, monthly salary, working hours, break time, training, and ILO's inspection were significantly influencing the compliance with decent work. Moreover, there is a need of a collaboration between government of Kenya and International Labour Organisation to put into the place the consistent inspections to ensure the compliance of decent work in coffee production and primary processing.

Keywords: Decent Work, coffee, productive, employment, labour, safety

Abbreviations: AFA- Agriculture and Food Authority, CBA- Collective Bargaining Agreements, CIDP- County Integrated Development Plan, DWCP- Decent Work Country Programme, GoK- Government of Kenya, ICO- International Coffee Organisation, ILO- International Labour Organisation, MLE- Maximum

1. INTRODUCTION

Work refers to the essential right and respectable for humankind as it is an appropriate way for individuals to give expression and enhance their welfare (Edralin, 2016). This is nearly the same way as the decent work agenda as described by the International Labor Organization which includes productive work for men and women, safe health within the working environment, social security, and social dialogue for all formal and informal employees as well as self-employed individuals (Lagat & Maina, 2017). Decent work involves opportunities for productive employment through getting fair income for all individuals, assured security in the workplace, and family social protection. Decent work also ensures better projections for personal development and social inclusion, freedom for expression, organization, and participatory decision-making that create a positive impact on individuals' livelihoods (Pereira *et al.*, 2019).

Decent work agenda was introduced and approved by the ILO in 1999 to stand for the main four pillars including full and productive employment, safety in the workplace, social protection, and social dialogue (International Labor Organization [ILO], 2019). One of the strategies to achieve this agenda is the Decent Work Country Program (DWCP) which is considered the engine for ILO cooperation in a given country (ILO, 2019). Through the DWCP, the constituents of ILO and stakeholders form a partnership that articulates the priorities and implements the strategies within the country. These strategies aim to effectively utilize available financials and human resources that contribute to development progress. DCWP also improves the collaboration between partners that mobilize the available resources (Federation of Kenya Employers [FKE], 2019).

In Kenya, the decent work agenda has been actively considered since the independence period and its priorities are in the line with vision 2030 (Government of Kenya [GoK] ,2019; ILO ,2013,). Over the years, various programs and projects related to job creation, women empowerment in entrepreneurship, labour relations, youth entrepreneurship and development, and child labour elaboration have been implemented (FKE, 2019). Decent work also has been prioritized within the main Kenyan government platforms including the Second Kenya Medium-Term Plan from 2013 to 2017, The Kenya jubilee manifesto, and also the United Nations (UN) development assistance framework from 2009 to 2014 (Mureithi, 2008). In line with this agenda, the government also determined the agricultural-related minimum wages per different categories of workers, where the law states that the basic minimum consolidated wages at the farm level are 7,544.66 Kenyan shillings per month for unskilled employees (GoK, 2018).

Coffee is a major cash crop in Kenya which highly contributes to the economic development of the country through income generation, contribution to the country's exports, and employment creation at the rate of 30 percent of total agricultural employment (ICO,2019). Coffee production and primary processing involve a labour-intensive nature due to the various activities that are undertaken. This leads to the involvement of a lot of casual labourers that are excluded from labour legislation and social protection (Government of Kenya, 2020). The main reason for the coffee estate to employ casual workers informally is to reduce expenses by reducing the number of workers on the estate the payroll. That exclusion makes casual labourers work under risky conditions, long working hours, lack of decent wages, and lack of self-protection which is based on the lack of protective kits as well as lack of first aids skills in case of work accidents (Mureithi, 2008).

Kiambu County is the leading coffee-producing county amounting to about 22 percent of the total coffee produced in Kenya (Agriculture and Food Authority [AFA], 2020). Apart from that Kiambu is the leading county in the Kenyan coffee production sector, the compliance with decent work during production and primary processing is still low and some casual labourers face various problems including long working hours, unfair wages and salaries, limited social capacity, and lack of collective bargaining that results in poor living standards and job insecurity (Mureithi,2008). Furthermore, past empirical studies only focused on the deficit of decent work in agriculture and the importance of decent work dimensions in Agri-enterprise, but there is still a literature gap on the factors influencing compliance with decent work practices in coffee production and primary processing in Kenya. This study sought to reduce the existing literature gap by providing new contributions to literature about the social demographic, institutional and employment conditions factors that influence the compliance within coffee estates in Kiambu County, as a way of improving coffee casual workers' livelihood through the promotion of productive employment and sustainable economic growth in Kiambu County.

2. CONCEPTUAL FRAMEWORK

The decent work compliance within coffee estates of Kiambu County was influenced by social demographic factors, institutional factors, and employment conditions. The age of the employee, marital status, level of education, and years of working experience were considered as social factors. The study took into account the institutional factors that are the estate ownership, size of the estate, location of the estate, and coffee selling channel. Employment conditions included training, wage amount, type of task, type of contract, working hours, gender equality, non-financial rewards, and freedom for participation. The intervening variables that include the ILO rules and regulations, Decent work country program policies, and Employment schemes were also considered, as the factors that accelerated the compliance of decent work within coffee estates. The research determined the significance of all these factors on the compliance of decent work.

3. MATERIAL AND METHODS

3.1. Study Area

The study was carried in Kiambu county, one of the counties that highly grow coffee in Kenya (Figure1). Coffee estates in this county lead in hiring casual workers where each estate employs between 100 and 500 casual workers (CIDP, 2018).The total area of this County is 2,545.5km² with 476.3 covered by forest. The county borders Nairobi County to the North while there is Kajiado

County to the south border. There is also Machakos County at the eastern border and Murang'a to the northeast. Nakuru County is at the west border of this county and also Nyandarwa County is to the northwest. The latitudes of Kiambu County lie between 00 25' and 10 20' south of the equator. The longitudes of this County are between 360 31' west and 370 15' east

3.2. Sample Size Determination

Research selected 385 respondents that were proportionately distributed in four estates. The researcher interviewed 123 casual workers in EAAGADS, 122 Fairview, 62 inYadini and 62 in Ibonia (Table 1). This sample size was determined based on the formula adopted by Kothari (2004). The formula was suitable due to unknown exact number of population size (Al-Subaihi, 2003)

$$n = \frac{z^2 pq}{e^2} (1).$$

Where n stands for the sample size, z is the z-value at the confidence level of 95 percent (z=1.96). P which is equal to 0.5 means the probability of the targeted population meets study characteristics that were measured. Q refers to the probability of the targeted population that does not meet the characteristics measured by the study and it is computed as 1-p (1-0.5=0.5), e is the accepted error at 95% confidence interval.

Table1. Proportionate sample size distribution in the area of study

Coffee estate	Number of employees	Proportion	Number of respondents
Fairview	400	8/25	123
EAAGADS	450	9/25	138
Yadini	200	4/25	62
Ibonia	200	4/25	62
Total	1250	1	385

Source: Kenya coffee board -CBK, 2019

3.3. Sampling Procedure

Multistage sampling procedure was used in this study by selecting purposively 3 sub-counties (Kiambu, Ruiru, and Juja) based on their high rate of coffee production and availability of active coffee estates. The study randomly selected EAAGADS, Fairview, Yadini, and Ibonia coffee estates and lastly, Snowball sampling method was used to reach the respondents in each selected estate. This method was suitable for this research due to sensitive questions that were being addressed to casual labourers that should have been caused by biased information due to fear of losing their jobs if the researcher employed the other method. Thereafter, Primary data was collected by using personally administered questionnaires to the selected casual workers in each coffee estate.

3.4. Analytical Framework

The research employed Multivariate Probit (MVP) Regression Model to analyze the factors that influence the compliance of decent work in coffee estates in Kiambu county. The alternative models in this research were Multinomial regression models that are suitable for estimating the nominal outcomes of unordered categories (Wosene *et al.*, 2018), but there are used when the individual choices are mutually exclusive as well as collectively exhaustive alternatives (Tarekegn *et al.*, 2017). Multinomial Regression models assume independence across the choices which means that it does not allow the correlation between explanatory variables (Wosene *et al.*, 2018). In this research, the compliance of decent work in its 4 main pillars is assumed not to be mutually exclusive which implies that the compliance can be based on more than one pillar dimension or the combination of both at the same time. Therefore, the random technique component of decent work indices may be correlated. This implied that Multivariate Probit Model was an appropriate model in this research due to its allowance of possible contemporaneous correlation between factors for the compliance of decent work based on four main pillars. It also increased the efficiency during the estimation of simultaneity of compliance.

The specification of the empirical model was as follows:

$$Y_i = \beta_j X_{ij} + \varepsilon_{ij} \quad (2)$$

Where Y_i ($i=1, \dots, 4$) represented the compliance of decent work under 4 main pillars, β_j represents the vectors of parameters to be estimated, X_{ij} refers to the vector of all factors that influence the compliance of decent work and ε_{ij} represents the error terms.

Maximum likelihood estimation (MLE) was essential for estimating parameters in equation 2, therefore the implicit functional form estimated to determine the factors that influence the compliance of decent work was given by:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \beta_{14} X_{14} + \beta_{15} X_{15} + \varepsilon_i \quad (2.1)$$

As described in table 2, Y_i ($i=1, 2, 3, 4$) refers the compliance with decent work based on each pillar that was converted into a dummy variable (1 for high compliance and 0 for low compliance), β_0 is a constant, β_1 to β_{15} are coefficients and ε_i is the error term.

Table 2. Description and measurement of variables in the multivariate Probit regression model

Variable	Description	Unit of measurement	Expect sign
Dependent variable			
Y_j ($i=1, \dots, 4$)	DW compliance based on productive employment	1 if high compliance 0 if low compliance	
	DW compliance based on safety at work	1 if high compliance 0 if low compliance	
	DW compliance based on the social protection	1 if high compliance 0 if low compliance	
	DW compliance based on the social dialogue	1 if high compliance 0 if low compliance	
Independent variables			
x_1	employee age	Years	+/-
x_2	employee gender	1 if male, 0 if female	+/-
x_3	employee marital status	1 single, 2 married	+/-
		3 otherwise	
x_4	employee working experience	Years	+/-
x_5	estate ownership	1 Government, 0 otherwise	+/-
x_6	size of estate	Acres	+/-
x_7	Education of the employee	1 no education, 2 primary, 3 secondary, 4 tertiary, 5 other	+/-
x_8	coffee marketing channel	1 if export, 0 local	+/-
x_9	Monthly salary	Kenyan shillings	+/-
x_{10}	training	1 if yes, 0 otherwise	+/-

X ₁₁	working hours	hours/ per week	+/-
X ₁₂	Breaktime	1 if yes, 0 otherwise	+/-
X ₁₃	Inspection from ILO	1 if yes, 0 otherwise	+
X ₁₄	Employee's position	1 if yes, 0 otherwise	+/-

4. RESULTS AND DISCUSSIONS

4.1. Characteristics of Respondents

Table 3 describes the descriptive statistics of the respondents. It shows that the mean age of casual workers who are employed in Coffee estates is 36.28 years old but majority of workers are 32 years old. The results are similar to the Indian coffee sector where 70% were in their 35 years old (Pinedo, 2020). This is because coffee needs energetic workers due to the tiresome practices that are done during coffee production and primary processing. The minimum age is 18 years old because employees who falls under that age are be considered child labour, which is prohibited by ILO standards. Contrary, results show that in Ethiopia, 21.6% coffee workers were reported to be 14 years or less (Pinedo, 2020). The study done by Breetta and Amit (2020), on the decent work index for informal workers in India show that the median age of respondents was 39 years old. And the minimum age was 16 years, while the maximum age was 76 years. Both men and women aged between 30 and 50 years play an active part in crop production (Onyemauwa *et al.*, 2007). This justifies the reason why the majority of casual workers in coffee production and primary processing are aged 32 years or older.

The mean working experience of workers within the coffee estates of Kiambu county is 4.5 years but the majority of workers have 1 year of experience because of the nature of coffee activities that are seasonal. Seasonality implies that estates normally employ workers to perform activities during peak season, and because there is no permanent contract, employees remain there while looking for other jobs (ICO,2019). The minimum working experience was one month, while the maximum is 37 years. Contrary to Ali (2013), the working experience was 7 to 10 years for the majority (38%) of workers in the formal employment sector in Tanzania. This high number of years depends on the working conditions that permanent workers get at their workplace due to their inclusion on the payroll of their companies and also being a member of collective bargaining agreements (CBA).

Table3. *Descriptive statistics of respondents*

	N	Minimum	Maximum	Mean	Mode	Std. Deviation
Age (Years)	385	18	68	36.28	32	11.377
Working experience (yrs)	385	0.08	37	4.55	1	6.244

Source: *Primary data collection, 2022*

As shown in table 4, the majority of respondents were female at a rate of 65.2 %, while the male gender accounted for 34.8%. The high number of women in coffee production and primary processing could be due to how they are responsible for daily livelihood as well as the types of tasks they perform, such as weeding, picking, sorting, and grading, which are considered jobs for women. On the other hand, women generally have lower access to productive resources, including land, credit, and information, than men (Lingyan, 2021). These factors cause women to participate in casual employment within coffee production and primary processing compared to men. The results supported by Farm Africa (2021) in its report about gender and the coffee value chain in Kanungu, Uganda, where the results show that women contribute 58% of the labour force during fieldwork activities of coffee production including weeding, pruning, and picking, and also 72% of the labour force in post-harvest handling activities as well as in primary processing. In addition, depending on the region, women provide 70% of the labor in coffee production (ICO, 2018).

The majority of respondents equivalent to 60.8 percent were married. This is because the majority of workers are in the middle and active ages of their lives, and many individuals are married in this stage. The study showed that 56.1 percent attended primary school. This is because, during the

recruitment of casual employees, there are no specific requirements based on education level due to the fact that the activities performed do not necessitate any technical expertise or a degree. The resulted supported by Pinedo (2020), by showing that majority of workers within coffee farms do not go to schools beyond early secondary and this causes rare cases of observing university graduates being part of coffee workforce. The majority of male respondents were more educated compared to female respondents. This inequality in education could be caused by the retrogressive of female genital mutilation, which implies passage from childhood to womanhood at a young age (Lorentzen, 2020; Njiru, 2014; Ondiek, 2010). This contributes to the termination of girls’ education at the early education level so that they can engage in household and farm activities. Due to the harvesting season the study area, 52.5 percent of the casual workers were working as coffee pickers. Men prefer picking sections due to the structure of their work. Everyone is paid according to the number of buckets harvested. This means that the more you pick, the more you get a high wage. This is one of the reasons that attracts a lot of men to be in the picking sector.

Table4. Socio-demographic characteristics of respondents

Gender	Proportion	Marital status (1=single, 2=married, 3=otherwise)			Education (1=no education, 2=primary, 3=secondary, 4=tertiary, 5=others)					Working Position (1=primary processing, 2=weeding, 3=pruning, 4=picking)			
		1	2	3	1	2	3	4	5	1	2	3	4
Female	65.2	28.3	60.6	11.1	3.6	60.2	32.3	3.2	0.7	29.1	10.4	13.1	47.4
Male	34.8	35.1	61.2	3.7	0	48.5	43.3	8.2	0	20.1	6.8	11.2	61.9
Total	100	30.6	60.8	8.6	2.3	56.1	36.2	4.9	0.5	25.9	9.1	12.4	52.5

Source: Primary data collection, 2022

4.2. Factors Influencing the Compliance with Decent Work by Coffee Estates in Kiambu County

Table 5 presents the factors influencing compliance with decent work within the studied coffee estates based on a Multivariate Probit Model. The Chi2 statistics which is equal to - 522.19 showed that the likelihood ratio was highly significant (P<0.000). This implies that the Multivariate Probit Model had high explanatory power and also the goodness fit of the model. The covariance matrix which is denoted by rho21=rho31=rho41=rho32=rho 42= rho43=0, Implies that the rho-values are statistically significant at 95% confidence level. This means the rejection of the null hypothesis which assumes that all rho values are mutually equal to zero. This rejection implying the goodness of fit of the multivariate probit model that was used to analyze the decent work compliance based on its four main pillars. The results for the model showed that out of 14 hypothesized variables, twelve of them (age, gender, marital status, education, the position of an employee, estate ownership, the estate size, coffee marketing channel, monthly salary, working hours, break time, training and ILO’s inspection) were significantly influencing the compliance with decent work under its four pillars

Table8. Multivariate probit results for the factors influencing decent work compliance in Kiambu County

Variables	Productive employment			Safety at workplace			Social protection			Social dialogue		
	Coef.	Std. Err.	P>z	Coef.	Std. Err.	P>z	Coef.	Std. Err.	P>z	Coef.	Std. Err.	P>z
Gender	0.0305	0.2733	0.911	0.4521	0.1955	0.021**	0.1008	0.1660	0.544	0.3254	0.2079	0.118
Age	-0.0016	0.0129	0.900	-0.0182	0.0103	0.078*	0.0023	0.0084	0.787	0.0157	0.0107	0.140
Marital status	0.6490	0.2476	0.009***	0.1815	0.1642	0.269	0.0665	0.1379	0.630	-0.1342	0.1744	0.441
Education	0.2898	0.2175	0.183	-0.3351	0.1534	0.029**	-0.4220	0.1360	0.002***	0.1259	0.1614	0.435
Employee’s position	-0.3387	0.1377	0.014**	-0.4390	0.0883	0.000***	0.0833	0.0796	0.295	-0.4398	0.0970	0.000***
Working experience	-0.0144	0.0262	0.582	-0.0021	0.0159	0.894	-0.0233	0.0144	0.104	0.0057	0.0163	0.723
Estate ownership	1.1573	1.1043	0.295	-0.5329	0.8732	0.542	2.0831	0.7013	0.003***	2.6264	0.8851	0.003***
Estate size	-0.0027	0.0063	0.675	0.0006	0.0051	0.909	-0.0102	0.0041	0.013**	-0.0192	0.0051	0.000***
Coffee marketing	0.3951	0.5358	0.461	0.2209	0.4197	0.599	0.9666	0.3485	0.006***	1.3024	0.4435	0.003***

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Monthly salary	0.0006	0.0001	0.000***	0.0001	0.0001	0.194	0.0001	0.0001	0.029***	0.0001	0.0001	0.214
Working hours	-0.2100	0.0396	0.000***	-0.0056	0.0168	0.741	0.0025	0.0160	0.873	0.0395	0.0191	0.039***
Breaktime	0.0074	0.0088	0.402	0.0031	0.0053	0.599	0.0221	0.0056	0.000***	0.0003	0.0056	0.946
Training	3.0475	0.3549	0.000***	0.3656	0.2065	0.077*	0.4744	0.1598	0.003***	0.7211	0.2375	0.002***
Inspection from ILO	0.5131	0.2990	0.086	0.3683	0.1863	0.048**	0.4950	0.1607	0.002***	0.2500	0.1997	0.211
Constant	-1.5755	2.7252	0.563	1.1005	1.8130	0.544	-4.9678	1.4529	0.001***	-6.6024	2.0275	0.001***
Number of observations = 385, Wald chi2 (56) = 345.91, Log likelihood = -522.18583, Prob> chi2 = 0.0033, rho21=rho31=rho41=rho32=rho42=rho43=0 The asterisk ***, ** and * Represents 1%, 5%, and 10% significant levels, respectively												

The gender of the casual workers in coffee production and primary processing had a positive and significant influence on compliance with the safety at the workplace at a 95% confidence level (Table 5). The male casual workers had a probability of 45.21% of complying with decent work based on safety at the workplace while women had a 54.79%. The positive correlation between gender and safety at workplace pillar implies that men casual workers are tolerant of the harsh working conditions to achieve their target which is getting a salary. On the other hand, women casual workers do not tend to tolerate harsh working conditions that deny them to comply with safety at the workplace. There is evidence in the literature on gender-based labour segmentation in most rural agricultural sectors which states that women tend to be involved in a few sectors more than men. This segmentation implies the difficulty for women to switch to better jobs in new sectors of work. Agricultural rural employees face difficulties and gaps regarding the protection of their basic rights. Women experience the mentioned problems compared to men, and this makes them quit (ILC,2008).

The age of the casual employee in the coffee estate had a negative and significant influence on the compliance of safety at the workplace at a 90% confidence level. This implies that a unit increase in the age of the casual worker who is in coffee production and primary processing reduces the likelihood of him experiencing safety at the workplace by 1.82%. This proves that the older the casual worker becomes, the less likelihood to get safety at the workplace. This was supported by the literature which shows that workers who are in their mid-40s experience discrimination based on their age. The reason of this discrimination depends on how older workers are reduced to age-old physiological systems such as muscle fitness, stature, dexterity, and mobility (Brynes *et al.*, 2019). The findings prove that younger casual employees tend to get many practices concerning safety at the workplace due to their energetic conditions that allow them to work hard at their workplace. The coffee estate owners try their best to offer good working conditions as a way of making them stay since there are no barriers to exit. This is a bit contrary according to the study of Abdul Aziz *et al* (2021), the worker who is old but who worked in the same institution for a long time tend to have safety compliance with organisation's safety culture due to their contribution to the sustainability within their working institutions. In this scenario, working institutions rely on older workers more than young workers. This reliability depends on different factors including their wide range of expertise, knowledge, skills, and commitment level. When an employee grows older, there is a high likelihood of experiencing an increase in decent work due to his working experience (Oppong,2019)

The worker's marital status had a positive and significant influence on compliance with adequate income and productive employment pillar at a 99% confidence level. This simply means that married casual workers who are in coffee production and primary processing tend to have adequate earnings and productive employment at 64.90%. This positive correlation between marital status and adequate earnings and productive employment means that once a worker is married there is a chance of increasing his/her salary, and compensation in case of overwork. This is because married people have more responsibilities that cannot allow them to stay where there is no decent working hours and income. Also, employers prefer married employees over single employees because they believed that married ones are responsible as well as stable. These reasons cause more payment and also fewer working hours for the married employees as a way of making them comfortable and stay within their working sector (Banilla & Trejos, 2021; Mustafa, 2002).

On the other hand, the majority of work supervisors are older and more likely to be married. This favours the married employees to get better pay because supervisors understand their life responsibilities compared to how they can understand those of single employees (Chun & Lee, 2001). The literature supports these findings by showing the positive correlation between marriage and earnings. This is because of how married individuals especially men increase their commitment to substantial work to achieve higher wage gain. This implies that when people stay in a marriage, the working hours decline while their wages increase.

The education of casual employees had a negative and significant influence on compliance with safety at the workplace and social protection at 95% and 99% confidence levels respectively. A unit increase in the schooling year of the casual worker reduces the likelihood of him experiencing safety at the workplace at 33.51% and less likelihood of experiencing social protection at 42.20%. This is because the working conditions among casual workers who are doing their duties in coffee production and primary processing are almost the same. This is because all casual workers within coffee estates are considered as unskilled labour. Research shows that being considered as unskilled labour is associated with different risks overtime, employment insecurity, sexual harassment, no chance for upward mobility (Seneduangdeth *et al.*, 2018). This implies that workers who went to school do not get favourable conditions based on their qualifications. This is one of the reasons for the decent work deficit among these individuals. The findings were supported by Breeta and Amit (2020), who found that the decent work index decreases as per the increase of years of schooling among rural casual workers compared to other categories of employees.

The position of the casual employees had a negative and significant influence on compliance with adequate earnings and productive employment at a 95% confidence level. It was also negatively significant on the compliance with safety in the workplace and social dialogue at a 99% confidence interval. The results prove that casual workers who carry out their duties under primary processing tend to have the probability of 38.87% getting adequate earning and productive employment, 43.90% experiencing safety at the workplace, and 43.98% having a social dialogue. This is because the primary processing department plays a major role in processing quality coffee that will be marketed as per standards. The department also involves uniform activities that require highly experienced and consistent workers. For this reason, estate owners try to comply with decent work among the workers who are under primary processing for the sake of reducing workers' migration to other departments or neighbouring coffee estates.

Estate ownership had a positive and significant influence on compliance with both social protection and also with social dialogue at a 99% confidence level. The findings imply that the casual workers who are carrying the production and primary processing duties in Private-Government partnership coffee estates tend to have high probability of complying with decent work based on social protection and 88.55% probability of experiencing social dialogue practices. Similar findings show that employees within private sector were found to experience a decent work deficit compared to public sector employees (Wan *et al.*, 2018). Also, the decent work deficit was more in the private sectors at 81.14% compared with other sectors of the economy in Ghana. In this country, workers who were performing their duties in Private-Government partnership sectors complied with decent work at 59.35% (Oppong, 2019). The reason for this inequality between casual workers from private and Private-Government partnership coffee estates depends on how government plays a major part in the management of Private-Government partnership coffee estates. Government designs and implements the policies that contribute to the high performance of coffee production within coffee estates (Kuguru, 2016). This proves that workers who are under Private-Government partnership coffee estates were affected by established policies from the government and this gives them a high chance of complying with social protection and social dialogue compared to those from private coffee estates.

The size of the coffee estate had a negative and significant influence on compliance with social protection at a 95% confidence level and also on the compliance with social dialogue at a 99% confidence level. This means that the unit increase of one acre in the size of coffee estate tends to reduce the probability of coffee casual workers to get compliance with social protection at 1.02% and also a low probability of compliance with social dialogue at 1.92%. The reason behind this is that small farms produce higher yields than large farms (Muhammad & Mazhar, 2022). It implies that the

farm output declines with farm size in many developing countries (Ali& Deininger, 2015; Foster & Rosenzweig, 2017). This makes farm managers reduce the labour required per unit of land as farm size increases (Barret *et al.*, 2010). This reduction of workers as per the increase of farm size makes casual workers in coffee production and primary processing experience a deficit in compliance with decent work practices related to heavy tasks and also a lack of freedom in giving suggestions about their working conditions.

Coffee marketing channel had a positive and significant influence on the compliance with social protection and social dialogue pillars of decent work at 99% confidence level. The findings show that the workers under coffee estates that market their coffee through both agents and direct channels tend to have 96.66% probability of experiencing social protection and high probability of complying with social dialogue. This is because marketing by using both direct and agent methods reduced marketing challenges that affect the returns to the investments. On the other side, the combination of these two methods contributed to the reduction of marketing transaction costs among coffee estates (Nkonge, 2011). This clearly means that the coffee estates that use both methods of marketing reduce marketing costs compared to those using agents. This contributed to the promotion of decent work practices as the result from the minimized costs. Coffee estates became better off due to high earnings from the sold yield at minimum cost and this influenced them to comply with social protection and social dialogue for their employees.

The monthly salary of the casual employees had a positive and significant influence on compliance with adequate earnings and productive employment at a 99% confidence level. It also had a positive and significant influence on compliance with social protection at a 95% confidence level. This simply means that an increment of one Kenyan shilling to the monthly salary tends to increase the probability of casual workers experiencing adequate earnings and productive employment at 0.06%. Again, that increment tends to increase the probability of complying with social protection at 0.01%. The increase in wages is associated with decent wages that are expected by ILO (ILO,2013). This means that as the coffee estates increase the workers' wages, the casual workers approach the level of getting minimum wages as well as above the minimum wages. This is one of the motivations that make employees to improve their ways of performing activities under coffee production and primary processing.

Working hours had a negative and significant influence on compliance with adequate earnings and productive employment at a 99% confidence level. It also positively influences compliance with social dialogue at a 95% confidence interval. A unit increase of one working hour per week is associated with a decrease in the probability of complying with productive employment at 21%. Employees do not prefer regular long working hours due to how they affect their health. These effects are not limited to individual workers only, they even affect their families and the community at large (Golden, 2015; Spurgeon, 2003, Wong *et al.*, 2019). Long working hours increase occurring chances of work accidents due to workers' body stresses and thus contribute to the loss of enterprises (Carmichael, 2015;Mourre, 2004). Findings were related to the one for Shepard and Clifton (2000), Long working hours affect individual workers' productivity as well as the enterprise at low. Employees working excessively long hours regularly have reported high fatigue, loss of job satisfaction, and low work motivation. Opposite to this, few working hours lead to decent working hours and also attract high-performing employees and reduce costs that are associated with occupational injuries and sicknesses linked with excess working hours (Kossek & Lee, 2008). An increase of one working hour per week increases the probability of complying with social dialogue at 3.95%. This shows the low probability of casual employees who accept long regular working hours to be considered to be loyal workers to the employers. That loyalty gives them chances of having freedom for participating in estate decision-making activities regarding their working conditions.

Break time had a positive and significant influence on the compliance of social protection at the 99% confidence level. An increase of one minute for break tends to increase the probability for coffee casual workers to get social protection by 2.21%. The results imply that as the duration of break time increases, casual workers got time to rest and this has a positive impact on their health. Break time favours employees to participate in other family responsibilities after work as well as during break time. The literature shows that work break time positively impacts the physical health of the employee. During break time labour can take lunch, nape, and walk around which impacts employees'

health. The opposite scenario is that short break time increased fatigues labour at work and this affected negatively the labour health (Saifullah *et al.*, 2021). According to Scholz *et al.* (2019), work breaks play an important role by offering workers time to recover from work-related problems of strain after a busy schedule and also to improve their work performance, mental and physical fitness, and safety at the workplace.

Training had a positive and significant influence on compliance with adequate earnings and productive employment, social protection, and social dialogue at 99% confidence level and safety at the workplace at 90% confidence level. The findings imply that the offering of training to the casual workers who are performing their duties under coffee production and primary processing tends to have high probability of complying with adequate and productive employment pillar and also complying with safety at the workplace, social protection, and social dialogue by 36.83%, 47.44%, and 72.11% respectively. Similarly, effective training contributes to the improved performance of employees. It bridges the gap between current and desired standards of performance. Training allows organisations to make the best use of human resources for gaining a competitive advantage (Jie, 2005). According to David (2006), training sharpens employees' thinking ability and creativity to take better decisions in time and in a productive manner.

The ILO inspection had a positive and significant influence on the compliance of safety at the workplace and social protection at 95% and 99% confidence levels respectively. Casual workers who performed their jobs under coffee estates where ILO inspects, tend to have the probability of experiencing compliance with safety at the workplace and social protection by 36.83% and 49.50% respectively. The institutions which were subjected to labour inspection agencies exhibited a high significant level of compliance with safety regulations compared to institutions that were not subjected to labour inspections (Dahl, 2013). The finds supported by Baldock *et al.* (2006), found that labour inspections indicate that public resources used up on control and enforcement in a given sector serve one of its intended to improve compliance with health and safety requirements within enterprises.

5. CONCLUSION

Despite the various literature on the analysis of decent work in coffee production, no study has looked at factors influencing compliance with decent work in Kenyan coffee production and primary processing. This shortfall in literature contributes to the limitation of designing specific policies that can help improve the quality of employment conditions and reach the ILO's decent work standards. This study found that age, gender, marital status, education, the position of an employee, estate ownership, the estate size, coffee marketing channel, monthly salary, working hours, break time, training, and ILO's inspection significantly influenced the compliance with decent work. Based on the compliance with each pillar, the result indicated that marital status, monthly salary, and training positively influenced compliance with adequate earnings and productive employment while employment position and working hours negatively influenced the compliance of this pillar. The compliance of safety in the workplace was positively influenced by gender, training, and inspection from ILO, while it was negatively influenced by age, education, and employee's position. Social protection was positively influenced by estate ownership, coffee marketing channels, monthly salary, break time training, and inspection from ILO, while it was negatively influenced by education and estate. Lastly, estate ownership, coffee marketing channels, working hours, and training positively influenced compliance with social dialogue. The compliance with this pillar was also negatively influenced by the position of the employee and the size of the estates. Furthermore, there is a need of collaboration between government of Kenya and International Labour Organisation to put into the place the consistent inspections to ensure the compliance of decent work in coffee production and primary processing in Kiambu County.

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REFERENCES

- Abdul Aziz, M.I., Warishah, A.W., Rohayu, C.O., Mohd, Z.M., Hairin, T., & Rasyikin, R. (2021). Impact of employee age and work experience on safety culture at workplace. EDP Sciences web of conferences. <https://doi.org/10.1051/e3sconf/202132506007>
- Agricultural Policy Research in Africa (2020) Impact of COVID-19 on food system and rural livelihoods in Kenya. Brighton, UK: University of Sussex.
- Ali, A. K. (2013) A Policy Framework for promoting decent employment in Tanzania. (PhD Thesis, Muzumbe university, Tanzania).
- Ali, D. A., & Deininger, K. (2015). Is There a Farm Size–Productivity Relationship in African Agriculture? Evidence from Rwanda. *Land Economics*, 91(2), 317–343.
- Al-Subaihi, A. A. (2003) Sample size determination. Influencing factors and calculation strategies for survey research. *Neurosciences Journal* 8(2):79-86.
- Anker, R., Chernyshev, I., Egger, P., Mehran, F., & Ritter, J. (2002). Measuring decent work with statistical indicators, international labour organization, policy integration department. International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_079089.
- Avner, A. & Robert, L. (2005). How Do Marital Status, Wage Rates, and Work Commitment Interact? (July 2005). IZA Discussion Paper No. 1688. <http://dx.doi.org/10.2139/ssrn.773950>
- Baldock, R., James, P., Smallbone, D., & Vickers, I. (2006). Influences on small-firm compliance-related behaviour: the case of workplace health and safety. *Environment and Planning C: Government and Policy* 24, 827-846.
- Barrett, S. J. (2010). Factors associated with labor support behaviors of nurses. *The Journal of perinatal education*, 19(1), 12-18.
- Barrientos, A. & Hulme, D. (2005). Chronic poverty and social protection: Introduction. *European Journal of Development Research* 17(1),1-7.
- Bell, S., & Newitt, K. (2010). A study for the decent work and labour standards forum. <http://www.ergononline.net>.
- Bescond, D., Chataignier, A., & Mehran, F. (2003) Seven indicators to measure decent work: An international comparison. *International Labour Review* 142(2),180-211.
- Bonilla, R. & Trejos, A. (2021). Marriage and employment participation with wage bargaining in search equilibrium. *Scottish Journal of Political Economy*, 68(4), 517-533. DOI: 10.1111/sjpe.12289.
- Breeta, B. & Amit, K. (2020) Evaluation of decent work index for informal workers: an empirical study from Hooghly district, west Bengal, India. *Indian Journal of Human Development* 14(1),76–98.
- Burchell, B., Sehnbruch, K., Piasna, A., & Agloni, N. (2014). The Quality of Employment and Decent Work: Definitions, Methodologies and Ongoing Debates. *Cambridge Journal of Economics* 38, 459-477
- Chun, H., & Lee, I. (2001). Why do married men earn more: productivity or marriage selection? *Economic Inquiry*, 39, 307-319.
- County Integrated Development Plan (2018). Nakuru county integrated development plan (2018-2022). https://roggkenya.org/wpcontent/uploads/Nakuru_CIDP_2018-2022_County-Integrated-Development-Plan.
- County Government of Kiambu (2021) Expression of interest for consultancy services to develop a shared service strategy for Kiambu county coffee growers' association negotiation. Nairobi Kenya: Department of agriculture, crop production, irrigation and marketing.
- Dahl, O. (2013). Labour inspection and its impact on enterprises' compliance with safety regulations. *Safety Science Monitor*, 17(2), 1-12
- Edralin, D. M. (2016) Good work through decent work: practices of sixteen unionized firms in the Philippines. *DLSU Business and Economics Review* 26(1), 1-16.
- Farm Africa (2021). Annual reports and financial statement. <https://www.farmafrica.org/downloads/2022/farm-africa-annual-report---financial-statements-2021>
- Federation of Kenya Employers (2019) Benefits of being a member of Federation of Kenya employers. Annual report and financial statements. 13 August. Nairobi, Kenya.

- Ghai, D. (2008) Decent work: concept and indicators. *International Labour Review* 142,113–145.
- Golden, L. (2015). Irregular work scheduling and its consequences. *Economic Policy Institute Briefing Paper*. <https://www.epi.org/publication/irregular-work-scheduling-and-its-consequences/>
- Government of Kenya (2018) Kenya Subsidiary Legislation. Nairobi, Kenya: National Council for Law Reporting with the Authority of the Attorney-General.
- Horowitz, J. L. & Savin, N. E. (2001) Binary response models: logits, probits, and semi-parametric. *Journal of Economic Perspectives* 15 (4), 43-56.
- International Coffee Organisation (2018). Gender equality in the coffee sector. <https://www.ico.org/documents/cy2017-18/icc-122-11e-gender-equality>.
- International Coffee Organization (2019) Country Coffee Profile. Nairobi, Kenya: Agriculture and food authority coffee directorate.
- International Labour Conference (2008). Gender equality at the heart of decent work. International Labour Organization, Geneva, Switzerland. <https://www.ohchr.org/sites/default/files/Documents/Issues/Racism/IWG/Session7/GenderEquality>.
- International Labour Organization (2013) Kenya Decent Work Country Programme, 2013-2016. Nairobi, Kenya.
- International Labour Organization (2019) World employment social outlook. Geneva, Switzerland.
- Jie, S. (2005). International training and management development, theory and reality. *Journal of Management Development*, 24(7), 656-666
- Kuguru, P.N. (2016). Effects of marketing processes on performance of coffee industry in Kenya. *Journal of Strategic Business and Management*, 3(2), 368-378
- Kossek, E. E., & Lee, M. D. (2008). Implementing a reduced-workload arrangement to retain high talent: A case study. *The Psychologist-Manager Journal*, 11(1), 49–64. <https://doi.org/10.1080/10887150801966995>
- Kouamé, R. M. (2017) Elicitation of the determinants of decent work in developing countries: evidence from Côte d'Ivoire. *Economics Bulletin* 37(1),494-507.
- Lagat, K. J. & Maina, C. M. (2017) A gender and decent work analysis of cassava production and on-farm processing, in Kuria West sub-county, Kenya. *African Journal of Agricultural Research* 12(31),2533–2544.
- Lorentzen, I.G. (2020). Kenyan girls' fight for education and empowerment. A case study investigating NGOs attempt to tackle cultural obstacles in education for girls in Kenya. (BSc dissertation, Malmo University).
- Magnano, P., Santisi, G., Zammitti, A., Zarbo, R., & Di Nuovo, S. (2019). Self-perceived employability and meaningful work: the mediating role of courage on quality of life. *Sustainability journal*, 11(3), 764-789
- Mourre, G., Buddelmeyer, H., & Ward-Warmedinger, M. (2005). 2004 European Commission's Economic Paper Series No.213 Part time work. https://www.researchgate.net/publication/344519108_2004_European_Commission's_Economic_Paper_Series_No213_Part_time_work.
- Muhammad, A. & Mazhar, M. (2020). Farm size and Productivity: The role of family labour. University of Pau, France.
- Mureithi, L. P. (2008) Coffee in Kenya: Some challenges for decent work. Geneva, Switzerland: ILO.
- Muthui, J. N., Matofari, J. W., Kingori, A., & Hülsebusch, C. (2019). Comparison of decent work status among smallholder pig farmers in Kenya; An empirical approach using Principal Components. *Journal of Agriculture and Rural Development in the Tropics and Subtropics*, 120(1), 79-90.
- Mustafa, K. (2002). An analysis of the relationship between marital status and family structure and on-the-job productivity. (PhD thesis, Naval postgraduate school Monterey, California). <https://core.ac.uk/download/pdf/36699726.pdf>
- Nizami, N. & Prasad, N. (2017) Correlational analysis of decent work indicators in decent work: concept, theory and measurement. UK: Palgrave Macmillan.
- Njiru, A., K. (2014). The influence of female genital mutilation on girls' participation in education: A case of primary schools in Mbeere north Siakago sub-county, Embu County, Kenya. (Master's thesis, University of Nairobi, Kenya). <http://erepository.uonbi.ac.ke/handle/11295/76374>
- Nkonge, V.C. (2011). Challenges affecting coffee marketing by coffee firms in Kenya. (Master's thesis, University of Nairobi, Kenya). <http://erepository.uonbi.ac.ke/bitstream/handle>
- Ondiek, C. A. (2010). The persistence of female genital mutilation (FGM) and its impact on women access to education and empowerment: A study of Kuria district, Nyanza province Kenya. (PhD thesis, University of South Africa, Pretoria).

- Onyemauwa, C.S. (2007). Analysis of Women Participation in Cassava Production and Processing in Imo State, Southeast Nigeria. *Agricultura tropica et subtropica*, 45(10),24-78
- Opong, J. (2019). Decent work and the working poor: evidence from Ghana. (Master's thesis, University of Ghana, Ghana). <https://ugspace.ug.edu.gh/handle/123456789/34331>
- Pereira, S., Dos Santos, N.,& Pais, L. (2019). Empirical research on decent work: A Literature review. *Scandinavian Journal of Work and Organizational Psychology* 4(1),1-15.
- Pinedo, L.C. (2020). Wages and working conditions in the coffee sector: the case of Costa Rica, Ethiopia, India, Indonesia and Viet Nam. International Labour Organisation. https://ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/--travail/documents/projectdocumentation/wcms_765134.
- Saifullah, H., Jameel, A., Abid, H., Muhammad, K., Waris, S., & Nisar, A. (2021). A Lunch Break Time and Its Impact on Employees Health, Performance and Stress on Work. *Journal of Pharmaceutical Research International*, 33(2) 84-97.
- Scholz, A., Ghadiri, A., Singh, U., Wendsche, J., Peters, T., & Schneider, S. (2018). Functional Work Breaks in a High-Demanding Work Environment: An Experimental Field Study. *Ergonomics*,61(1) 255–264.
- Seneduangdeth, D., Ounmany, K., Phommayong, S., Phouxav, K., Hathalong, K. (2018). Labour employment opportunities in coffee production in southern lao people's Democratic Republic. *Journal of Asian Rural Studies*1(2), 16-36.
- Shepard, E. & Clifton, T. (2000). Are long hours reducing productivity in manufacturing. *International Journal of Manpower*. 21(1), 540-553.
- Spurgeon, A. (2003). Working time. Its impact on safety and health. International Labour Organisation. <https://labordoc.ilo.org/discovery/fulldisplay/alma993605653402676/41>
- Wan, Y.Y, Ching, Y.Y & Chiou, J.C. (2018). Exploring the public-private and company size differences in employees' work characteristics and burnout: data analysis of a nationwide survey in Taiwan. *Industrial Health*, 56(5),452-463.
- Wong, K., Chan, A., & Ngan, S. C. (2019). The Effect of Long Working Hours and Overtime on Occupational Health: A Meta-Analysis of Evidence from 1998 to 2018. *International journal of environmental research and public health*, 16(12), 2102. <https://doi.org/10.3390/ijerph16122102>

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