THE DETERMINANTS OF WAGES OF DOMESTIC WORKERS IN NAIROBI COUNTY (A CASE OF LANGATA SUB COUNTY)

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DECLARATION

I declare that this Research Project is my orig	inal work and has not been presented for any award
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ABBREVIATIONS AND ACRONYMS

ANOVA Analysis of Variance

BLUE Best Linear Unbiased Estimator

CLRM Classical Linear Regression Model

COTU Central Organization of Trade Unions

GLS Generalised Least Square

ILO International Labour Organisation

KUDHEHIA Kenya Union of Domestic Health, Educational Hospitals Industrial and

Allied Workers

KNBS Kenya National Bureau of Statistics

NBER National Bureau of Economic Research

OLS Ordinary Least Square

RESET Regression Equation Specification Error Test

RoR Rate of Return

SPSS Statistical Package for Social Sciences

VIF Variance Inflation Factor

ABSTRACT

Domestic workers play a critical role in the employment segment globally and in particular Kenya. This research project sought to investigate the determinants of wages of domestic workers in Langata Sub County in Nairobi County. The study covered a sample size of 306 domestic workers all working in households located in Langata Sub County. The findings of the study from the regression analysis were that education level attainment, work experience, type of residence, and marital status of a domestic worker were statistically significant. Most of the respondents had basic education attainment but there was no significant difference in education attainment by gender. The mean wage for domestic workers was Ksh 9,296.70 implying that most of them earned below the minimum wage. Males earned a higher average wage than female respondents (Ksh 9,346.30 and Ksh 9,141.80 respectively). The study concludes that the level of education, work experience, worker's residence, marital status and age variables are key determinants of the wages of domestic workers, thus giving a different perspective approach to domestic workers' wage determination in addition to minimum wage regulation by the government. The study also concludes that domestic work had limited awareness of minimum wage legislation and labour practices in the domestic sector such as the existence of the trade union (KUDHEIHA) that covers domestic workers which exposes the them to unfair labour practices. Finally, gender-wage gap was evident with a 36.5 percent unexplained gender-wage gap between the male and female domestic workers.. The study recommends the need for government to formulate policies that would promote secondary education, sensitize domestic workers and their employers on the the labour legislation and finally take a broader approach When setting the minimum wage to factor other variables such as domestic workers' education level, experience, age and residence that this study found significant as wage determinants of domestic workers. To address rising gender-wage differences at higher levels of experience, the ministry should introduce training programs to sensitize domestic workers and employers on issues to do with discrimination, rights and skills such as salary negotiation.

CHAPTER ONE

1.1. Introduction

Wages of domestic workers and conditions of work. have recently received a lot of attention from several stakeholders including the International Labour Organization (ILO). Particular attention was given at the 100th International Labour Conference convened in 2011 which adopted a convention on decent work for all domestic earners. Article 1 of this resolution defines domestic work as "work performed within a household" and a domestic worker as "any worker undertaking a domestic job within an working relationship." (ILO, 2011) Report IV (1). The definition includes only those persons who carry out domestic work as a means of livelihood. A rapid assessment undertaken in Kenya in 2011 by KUDHEHIA reveals consistency with the definition by the ILO (2011) Convention. The assessment found that all domestic workers interviewed were engaged in a working relationship within households. and that they depended entirely on their earnings as a means of livelihood (Njeru 2011).

Domestic wage earners form a substantial segment of the work force in developing countries. The ILO (2010) survey estimates that domestic workers account for 10 percent of the workforces compared to about 2.5 per cent in industrialized countries. These estimates are similar in Latin America, with an estimate of 7.6 million household workforces, a representative of 5.5 percent of the metropolitan workers (Tokman, 2010). In Middle East, Saudi Arabia reports approximately 1.5 million home workers comprising of immigrants from Indonesia, the Philippines and Sri Lanka. (Human Rights Watch, 2010).

Domestic workers in Kenya contributes a significant percentage of the working population. These workers account for 5.2 percent of the wage earners which forms a higher percentage of workers compared to the formal sector such as finance (4.8%). (KNBS, 2009). The rapid assessment undertaken in 2011 by KUDHEHIA found out that 281 (74.5%) of the respondents served as house helps as compared to gardeners 39 (10.3%) and watchmen 24 (6.4%), while the other 8.8% accounted insignificantly into other categories of domestic workers (Njeru, 2011).

Women form the majority of domestic workers globally. The ILO (2010), estimates 75 percent or more domestic labour force globally are women, with Belize reporting 74 per cent and Israel

94 per cent. Latin America registers a 12 percent of the female domestic workforce in the urban areas compared to the male domestic workers who account for 0.5 per cent (Tokman, 2010). A similar situation is experienced in Kenya (Njeru, 2011).

Generally, the minimum wage legislation specifies the basic earnings of a domestic worker. The ILO (2009) survey that covered 40 member states indicate that 70 percent of countries in both Africa and Latin America; 18 per cent in Asia and 50 per cent in industrialized countries had their wages determined by minimum legislation. However, despite regulation, the survey points that these workers are often underpaid due to poor implementation and enforcement of the law thus creating loopholes for reporting underpayment which employers of domestic workers take advantage of. A KUDHEHIA report undertaken in 2011 disclosed that only a slight percentage of home workers typically employed in diplomatic missions, government organizations, and wealthy families receive the regulated wage. The rest of the workers earn less than Ksh. 5, 000 per month (Njeru 2011). This scenario portrays wages of domestic work as the least of all employments with majority earning less than the subsistence level. The low pay contravenes the ILO convention that advocates for a fair wage. Workers' earnings need to be pegged on the work performed, the nature of skills acquired by the worker, the job effort, the worker responsibility, and working environment the worker is exposed to (ILO, 2007).

Kenya ratified the ILO Concord of 2011 on decent work for home workers to conform to ILO proposal. Each year, the minimum wage is published in the Kenya Gazette which forms the basis of domestic workers earnings and sets the conditions of employment. Other than wage earnings the regulations require domestic workers' employers to grant break leaves, make contributions to the NSSF Scheme of Ksh. 200.00 and NHIF Ksh. 400.00. on behalf of the domestic worker.

Domestic workers' wages differ among cities, municipalities and rural areas. The major cities such as Nairobi and Kisumu attract higher wages than other regions in all occupations. From the year 2004 to date, the minimum wage for various occupations has risen gradually. In 2004, the minimum wage was Ksh. 3,908 per month in the cities and in the rural areas to Ksh. 3,252 monthly in the municipalities like Mavoko. However, the wage has risen gradually. In the year 2015, a wage rise by 12 percent from what was previously paid pushed the monthly wage for

domestic workers to Ksh. 10, 954 in the cities (Nairobi, Mombasa, and Kisumu) from Ksh 9, 781: while house servants, cleaners and other domestic workers in the municipalities earned Ksh 10,107.10. In the rural areas they earned Ksh. 4,844 only, lower than the former and the latter. The pay for domestic workers varies significantly from those of other workers. For instance, clerks, telephone operator's storekeepers and other lower cadre office workers earn higher than those of domestic workers. In the same year, clerical staff earned KES 16,872.40 in the main cities, Ksh 15425. 40 in the municipalities and Ksh 13152. 50 in the rural areas. The gazetted minimum wage rose by 14 per cent in the year 2019 from the earnings received year 2018. Domestic workers in the cities are required by law to take home Ksh 13, 572 up from Ksh 12, 926.55 previously earned in 2017. When average earnings were obtained between the period 1994 to 2018 minimum wages in Kenya, the average wages amounted to Ksh 5958.47 per month, ranging from Ksh 1900 paid in 1994 and Ksh 13572 paid in the year 2019.

Domestic workers tend to be concentrated in urban areas with Nairobi County having the largest number. The County comprises of nine sub counties namely (Makadara, Kamukunji, Starehe, Lang'ata, Dagoretti, Westlands, Kasarani, Njiru and Embakasi). The population and housing census report (2009) indicate there were 985010 households in Nairobi. It is estimated that 1.15 million households in Nairobi engage domestic workers. Langata sub county is estimated to have about 108 477 Households.

1.2. Statement of the Problem

The ILO (2010) estimates that 10% of the entire labor force in developing nations work as home workers. It is also evident that domestic work contributes to a substantial share of work in the informal segment in Kenya. The sector represents 5.2 percent of the total wage earners (KNBS, 2013). Although demand for domestic services is generally high, workers are engaged without any employment contract or social protection cover whilst their pay is the lowest among all occupations (ILO, 2007). Women workers are more affected than their male counterparts. Many employers do not comply with the minimum wage regulation since non-compliance not only attracts trivial penalties but also no enforcement is done (Tokman, 2010).

Since the ratification of the ILO Convention of 2010, Kenya has made strides to improve domestic workers earnings.

Empirical research on wage determinants in Africa and Kenya have been explored adequately (Manda 2001, Kabubo- Mariara, 2003. Bigsten et.al 2005 among others), but few of these studies have focused their attention on the determinants of wages of domestic workers specifically. There is little evidence on whether indeed domestic wage earnings are in tandem with government wage regulation. Wage differences among workers arise due to differences in skills, working conditions and labour market institutions such as labour unions (ILO, 2010). The extent to which such factors determine wages of domestic workers in Kenya is not known. Njeru (2011) suggests that further studies ought to be conducted on determinants of domestic workers' wages, noting the limited literature in the field. Therefore the purpose of this study was to investigate the determinants of wages of domestic labourforce in Nairobi County. The study was conducted in Langata Sub-County.

1.3. Research Questions

This study was guided by the following research questions:

- i) What are the determinants of wages of domestic workers in Nairobi County?
- ii) What is the wage gap based on gender of domestic workers in Nairobi County?

1.4. Objectives of the Study

The objectives of the study was to investigate on the determinants of home workers earnings within Nairobi County.

Specific objectives were:

- i) To analyse the determinants of wages of domestic workers in Nairobi County
- ii) To analyse the wage gap based on gender of domestic workers in Nairobi County.

1.5. Significance of the Study

Domestic work forms a major source of employment in Kenya among the working population. Despite poor remuneration (Njeru 2011) workers' receive, their income not only assist their families but also stimulate consumption, thereby contributing to economic development of the country. It was therefore crucial to study the determinants of wage for domestic workers.

The study sought to provide empirical evidence that will impact positively on the policies and practices pertaining to earnings of domestic workers. The results of the study will be relevant in guiding the government when setting minimum wage. The findings of the study will create public awareness on significance of fair wages to domestic workers regardless of their sex, age and education due to the role they play in the economy.

Empirical studies on the influence of earnings of domestic workers in Kenya are scanty Therefore this study will add to the empirical findings on compensation of domestic work in Kenya.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter discusses the theories and earlier research conducted on the determinants of wages. The theoretical literature focuses on the human capital theory, compensating wage differentials, the efficiency wage theory and the rent sharing theory. The empirical literature discusses; the effect of minimum wage legislation on wages; the ability of the employer to wage and size of the employer; the influence of trade unions; effect of education on wages; work experience and job conditions; gender wage gap, and finally a summary of the review.

2.1. Theoretical Literature

One of the theories that provided a theoretical basis for the study was the efficiency wage theory through the following sub theories: the Nutritional Theory (Leibenstein, 1957; Mazumdar, 1959; Bliss and Stern, 1978); the 'Shirking' model (Bowles, 1981; Shapiro & Stiglitz, 1982. Krueger and Summers (1988); the Gift Exchange Model (Akerlof, 1982, 1984) and the Adverse Selection theory (Stiglitz, 1976; Weiss, 1980; Spitz, 1989; Groshen, 1991). Proponents of efficiency wage theories all agree that employers fix wages above the market rate for work performed to avoid the cost of the employees losing their jobs whilst retaining the efficient workers (World Bank, 1995). The theory was traditionally applied by Smith and Marshall to identify the pay an employer would compensate a worker to surge their efficiency such that the employer would be indifferent between an inefficient employee and a high efficient worker (Smith, 1976). The modern field of efficiency theory is however completely different from the traditional view as it shows productivity and efficiency benefits from increasing wages. Therefore, the efficiency sub theories suggest different reasons for employers to pay higher wages than the market rate.

The nutritional efficiency wage offers a connection between earnings, nourishment and efficiency. Employers maintain higher wages to ensure workers consume more (to prevent nourishment) and thereby increasing their efficiency. Therefore this theory suggests endogenously-induced wage inflexibility, a view that is essentially valid in unindustrialized countries where life sustenance is very critical (Leibenstein, 1957; Mazumdar, 1959; Bliss and Stern, 1978).

The Shirking model is concerned with inducement of workers to greater efficiency. Employers use the wage offer as an indirect control to reduce shirking of employees (Bowles, 1981, Shapiro and Stiglitz, 1982). Therefore firms are likely to wage higher than market clearing wages-(efficiency wages) to reduce Shirking of employees which would lower employee productivity and firm's profitability. Higher wages would also increase the cost of workers exit from their jobs thus discouraging them from shirking (Krueger and Summers, 1988). Workers' contributions would be small if they shirk or they would not be inspired to work (Bowles, 1981; Shapiro & Stiglitz, 1982)

Proponents of the adverse selection model allude that the efficiency unit endowment of every wage earner is fixed and within a diverse work force in terms of effort endowment, the wage level determines the composition of the workers willing to work, a higher wage entices workers with a greater efficiency unit endowment and vice versa (Stiglitz, 1976; Weiss 1980). Employers therefore wage higher earnings to attract suitable job candidates who would be more productive (Spitz, 1989). While the other efficiency sub- theories assume homogeneity of workers, the adverse selection theory assumes heterogeneity of workers (Groshen, 1991).

The theory of rent-sharing or gift exchange propounds a link between wages, loyalty and productivity. Employers offer their workers higher pay to win their loyalty (which rises with the magnitude to which employers share out their income with their employees) thereby increasing their productivity (Akerlof, 1982, 1984). The theory also attributes the presence of workers collective bargaining to the power of workers to threaten their employers to reduce the firm's returns to zero. (Akerlof, 1984). This assumption however raises questions among economists on how relevant the argument of market failure allied with union influence is as a determinant of wages in developing countries.

The collective bargaining theorists (Davidson, 1989; Daniel and Sofer, 1998), partly share similar views with the rent sharing theorists. Strong unions are able to bargain higher wages and good working conditions for their members (Davidson, 1989). Such unions require strong workers collective bargaining machinery to push their workers to threaten their employers to

shrink the firm's profits to zero (Grant and Brue, 2009). This hypothesis however raises many questions among economists on how relevant market volatility row linked with trade union power is as a determinant of wages in developing countries (Akerlof, 1982, 1984). Davidson suggests that wage determination analysis is an extremely intricate process that involves an interaction of several factors in order to determine the absolute bargaining strength of the negotiating teams involved. Marin and Psacharopoulus (1982) also found that unions bargain wages mainly for larger groups of staffs within the same occupation. This implies that unions normally take into account only average risks of the workers other than focusing on individual worker's risks.

The theory of compensating wage differentials (Rosen, 1988) contributes significantly to the literature of wage determinants. In a perfectly competitive job market, employers are expected to pay higher wages for jobs performed under poor working environment and other unfavorable job conditions ceteris paribus (Rosen, 1986). While some studies suggest large compensating differentials (Wei, 2007), others find higher rewards for specific groups of workers only (Sandy and Elliot, 2005; Bender, Mridha and Peoples, 2006), or no higher rewards at all (Brown, 1980; Martinello and Meng, 1992; Böckerman and Ilmakunnas, 2006). Ronsen (1986) termed the compensating wage differential as an equalizing force, and any extra pay that a worker receives, would motivate them to accept an unattractive job. Rosen (1972; 1986), considers the workers will to accept lower wages for lack of training as argued by Mincer (1974) in the human capital theory, as an equalizing difference.

Going by Rosen's explanations, one would expect domestic work to be highly compensated given the undesirable conditions the worker operates on (Njeru, 2011). Workers perform all house chores their employers assign them yet what they earn is not commensurate with the work they perform (Njeru, 2011). One reason why compensating wage differentials (CWD) are not observed in practice may be that several types of labour market imperfections exist (Ronsen, 1986). Employers may compensate greater wages than desired to attract workers even in sectors with better job amenities (Krueger and Summers, 1988). Another imperfection is the role of asymmetric information, caused by the fact that employers may be induced to conceal the real health risks their employees face (Sandy and Elliot, 1996). Where pursuit for information is

costly, the equilibrium correlation between earnings and poor job conditions may even be positive (Hwang, Mortensen and Reed, 1998).

The Human Capital Theory (Becker, 1964) dominates in the literature of wage determination. Education is a form of investment through direct spending and the opportunity costs of time spent by the learner (Becker, 1964). Individuals who spend more time in schooling attract higher wages than those individuals who spend less time in schooling (Mincer, 1958, 1964; Schultz, 1961; Becker, 1975). A college graduate is likely to enter the labour force at a higher wage than a high school diploma (Becker, 1994). Becker (1975) and Mincer (1964) proposed the need to compute the Rate of Return (RoR) on schooling in a comparable approach to investment.

However, the traditional Becker's human capital theory was not embraced without criticism. Schultz, (1930) supported Becker's view of schooling as a determinant of individual earnings but differed in their view of schooling. Unlike Becker (who focused on the number of years spent in schooling), Schultz attributed pay differentials among graduates to the nature of colleges or universities one attended. He argued that graduates of most prestigious universities are likely to earn more than those from lesser-known programs. This view was further advanced by Akerlof, Spence, Stiglitz (2002) in what they called screening. Employers prefer to hire candidates through academic institutions which have a reputation of producing high quality applicants to hiring candidates from unknown schools because obtaining employer's information would be less costly and readily available from high reputable institutions. Where it is known that employers use screening mechanisms, job applicants may choose their education to signal as Spence puts it, their greater ability. Given that more prestigious schools have a better signal but are more expensive to attend, one must choose between the potential income gains and the higher cost (Schultz, 1930). Therefore, acquiring a certain certificate in education serves as employees' signal to employers on respective skills employees possess which would be costly to obtain.

Bowles (1975) challenged the traditional human capital theory on the grounds that it overlooked the importance of class and class struggle (what the classical economist focused on) thereby imposing rigidities of the labour market forces. While Becker attached his ideas to the level of schooling, Bowles (1975) incorporated basic societal institutions such as schools and family to

the human capital theory which had hitherto been ignored. Education increases an individual's pay because it creates "incentive-enhancing preferences (Bowles and Gitts, 2003). Sidorkin (2007) offers another concrete assessment of the human capital theory. While earlier proponents of the theory overlooked the type of student effort and the private cost of education, whilst considering the students low-level physical effort as a base for estimating learners' sacrificed wages, Sidorkin (2007) considered students effort as a form of work and not an investment activity

2.2. Empirical Studies

This section reviews relevant empirical studies explored in Africa and Kenya in Particular on the determinants of wage earnings. The key variables discussed in the study were: Minimum wage legislation effect on wage; Ability to pay and size of the employer; effect of education and experience, effect of trade unions in wage determination and the gender pay discrepancy.

2.2.1. Minimum Wage Legislation Effect on Wage

Empirical literature on minimum wage regulation and its effects on wages in Africa is quite mixed (Neumark and Washer, 2007). Studies in South Africa reveal an optimistic correlation between workers' pay and the legislated minimum wage. For example, Baaauw and Bothma (2010) found out that after the government imposed minimum wage legislation in the year 2006, the number of labour force hired in homes dropped by 3.9% as the rise in wages led to a fall in demand for domestic workers. Taryn et.al (2012) revealed that after the enactment of minimum wage, there was a 20% increase in wage and according to Budlender (2010), wage legislation is a key determinant of earnings of domestic workers.

Although Kenya has made vigorous minimum wage appraisals, (for instance, between 1990 and 2008), there has been little gains in terms of wage increase due to non-compliance by employers and poor government enforcement of the regulation (Mabel & Pages, 2008; Owidhi, 2017). Wages rose only by 6 and 20 percent (Omolo, 2010). Omolo and Omitti (2004) found a 67 percent rate of non-compliance among skilled workers and a 24 percent rate of noncompliance in the agricultural sector Non-compliance was also found to be high among workers with less education mainly in agriculture and among young employees between eighteen to twenty five

years. The COTU report of 2017 estimates 83% of domestic labour force interviewed earn below the regulated wage, only 17% of (mostly diplomats' and senior government officers' workers) receive the set wage or earned slightly above the set wage; About 50% workers earned as low as Ksh.3,500 per month while 22% received between Ksh.7,000 to Kshs.10,000 monthly (Owidhi, 2017). Tijdens and Wambugu (2012) report on wages in Kenya shows wage disparities based on minimum wage legislation. While 58% of the sample received minimum or above regulated wage, 42% earned below the minimum wage verge. The survey also points that 85% of workers in the formal sector earned above the minimum wage as compared to 35% of the informal workers; Older Workers (50 years and above) were habitually compensated above the minimum wage than younger employees (below 29 years); and 78% of employees hired on formal contracts earned above the minimum wage as compared to 40% of workers without a labour contract who a earned below the legislated wage rate.

2.2.2. Trade Unions in Wage Determination

Empirical studies on the influence of trade unions and collective bargaining on wages in Africa and by extension Kenya show a mixed view. Studies undertaken in developed countries show a significant relationship between unions and workers earnings, though with substantial disparity in the projected scope of the outcome (Lewis, 1986; Booth, 1995). Galuscak et al. (2008) sought to find whether hiring pay is dependent on external influences or internal aspects. The study revealed diverse responses across different countries. Institutional factors such as trade union bargaining strength play a major part in wage determination of newly engaged workers. Countries where collective bargains are more predominant and collective agreement coverage is higher, employees report a higher pay. Schultz and Mwabu (1998) study in South Africa reveal a discrepancy on the effect of wages of the white workers and the black workers. While certain categories of white workers showed a undesirable effect of unions on their wages, the influence of trade union on earnings of African workforce was positive. Teal (1996) study in Ghana found a significant effect of trade union bargaining strength on wages of workers in the manufacturing segment.

However in Kenya, literature on the influence of trade unions on wages is insubstantial Johnson found that unionised employees earned 30% more than non-unionized workforce in private sector and 11% greater in the government sector. However, the study did not take into account variables, such as the size of a firm, which might be correlated with union affiliation. Another study (House and Rempel, 1976) found a significant correlation between unions and wages, but statistically inconsequential. However their findings overlooked other wage variables, such as the level of education and work experience. Manda (1997) found wages of unionized workers in the manufacturing sector 22% lower than those of the non-union workers. However Bigsten et. al. (2005) found inconsistences in the earlier studies. While Johnson (1971) and Manda (1997) based their analysis on wages, House and Rempel (1976) based their analysis on total earnings (wages, allowances and other benefits). When Bigsten et al. (2005) included other variables in the regression analysis and when personal pays were applied as the dependent variable, the results revealed that undesirable effect of union membership on wages are caused by poor attention to the endogeneity of the employees' union-status and to poor sample selection. When these issues were factored in the regression for male industrial workforces, the results showed a significant positive result. Workers are therefore unionized to earn better wages and also seek protection from long working hours and from unfair dismissal by their employers

2.2.3 Ability to Pay and Size of the Employer

Soderbom and Teal (2002), study on Nigeria's manufacturing sector that covered 176 firms and 868 workers reveal that the ability to pay and the size of the employer are significant factors in wage determination. The study compared earnings of employees in micro firms, medium and macro firms. The findings are that earnings augment with the firm size. A shift from micro to medium firms saw earnings increase by about 60 per cent and in moving from medium to macro firms by an additional 60 per cent rise in earnings was reported. This can largely be explained from unobserved quality of the workers and firms' performance. Micro firms may engage more competent workers thus paying higher wages and secondly they may pay workers to avoid shirking of workers.

Galuscak et al. (2008) study on wage determination of newly hired employees found that wages are largely dependent on whether workers belong to either secondary sector (characterized by high part-time jobs) or primary sector (characterized as full time and long-time jobs). The secondary sector usually receives regular raises in wages based on their performance. In the primary sector workers are paid on the basis of individual merit and market values since employees are highly skilled. From this argument, domestic workers would be classified under secondary workers. This implies that the actual performance ought to determine domestic workers pay with regular increases of wages expected. Alan and summers (1986) support Galuscak et.al findings. They conclude that there is substantial difference in wages across industries, even after taking into account the many factors that determine wages such as quality of work done, the conditions of work, welfare benefits, economics performance trends, the power of trade union in collective bargaining and their ability to issue threats, the size of the employer and other factors. Tijdens & Wambugu (2012)) found that larger firms offer higher average wages than smaller firms and workers engaged formally workers have relatively high wages.

2.3. Effect of Education and Experience

Empirical literature on the significance of education (Schooling) and experience in wage determination is rich. Although most of these studies do not focus on domestic workers earnings par say, their findings are relevant in this study. Education has a robust influence on earnings of an employee (Psacharopoulos & Patrinos, 2004). The more years an individual spend in schooling, the higher the earnings of the individual. A study in United Kingdom found a positive relationship between yields on investment and education (McIntosh and Vignoles (2001). Similar findings were recorded in Canada (Finnie & Meng, 2002; Green & Riddell, 2003).

In Kenya, extensive research has been done on the effect of Schooling on wage earnings. Most of these studies show a positive correlation between education and employee earnings (Manda 2001, Wambugu, 2003; Kimenyi et al, 2006; Okwema, 2018; Tijdens & Wambugu, 2012). Wambugu (2003) study on earnings and human capital in Kenya show that age and schooling are positively correlated to wage earnings. Manda et al. (2004) analyzed private returns and human capital externalities on education among a sample of males and females. The study identified

returns on education to be higher among females than males. Kimenyi et al (2006) found a progressive relationship between human investment and earnings of an employee. They concluded that an upward trend in the average education of female workers had an optimistic effect on male wages. However, when the model was assessed on a sample of females, the contrast result was evidenced. The implication is that schooling levels of either gender support each other on job market, thereby increasing the efficiency of both sexes (Kimemyi et al., 2002). Manda (2001) studies on the "incentive structure and efficiency in the Kenyan civil service" conclude that individual experience is an important factor in influencing wage earnings. Okwema (2018) study found the level of education, work experience and type of residence of a domestic workers highly significant in wage determination. Tijdens and Wambugu (2012) study on "wages in Kenya" found workers with higher upper secondary education reported a relative high median wage. Other studies in support of the number of years spent in schooling and experience in wage determination that have earlier been reviewed in the literature include (Becker, 1964,1975, 1994; Mincer, 1958; Schultz, 1961). They found individuals who spend more time in schooling receive higher earnings than individuals who spend less time in schooling.

2.4 Gender Gap in Wage Earnings

Studies on gender wage gap among domestic workers in Africa and Kenya in Particular has not been adequately explored. The available literature has also focused on wage inequality among other groups of workers other than on domestic workers. Gender wage gap discrimination occurs when men receive a higher relative wage than what their female counter parts would have earned if both were waged based on the same characteristics or vice versa (Oaxaca, 1973). Gender is one of the causes of inequality in wage earnings (Manthu, 2009).

In Africa in particular Kenya, a divergent view exists on the relative influence of gender discrimination in explained and unexplained characteristics on the extent of the gender pay gap (e.g. Agesa, 1999; Mariara-Kabubo, 2003). Several studies focus their attention exclusively on the gender wage gap at the conditional mean, rather than along the wage distribution (Agesa, 1999, and Mariara-Kabubo, 2003). Only recently Ntuli (2009) Ntuli using quantile regressions and Agesa et al. (2009) independently studied the gender pay gap along the whole pay distribution. Men receive higher pay than women (Agesa et al., 2013). According to the study, skill level and the percentage of each gender in various sectors, influence the degree of the

gender wage gap at its biggest values. Glick and Sahn (1997) study in Guinea on gender disparities in wages of three categories of workers (public-sector, private-sector and selfemployment) found dissimilarities in characteristics contribute to 45% of the male-female wage gap from self-employment and 25% from public-sector services, The findings indicate that males essentially earn higher wages than males in the private sector. However Appleton (1999), posits that if all employers are equally discriminatory, the economy wide effect would be an improvement for males at the cost of females, with the employers' returns also reduced. Though female's dominance in lower rewarding jobs yields huge male-female gap, a higher percentage variance can be attributed to discrimination (Oaxaca, 1973). However Oaxaca's approach did not address the index number issue (ie. whether female or male wage that would be measured as the non-discriminatory wage). It also did not consider the possibility that the sector in which one is employed influences the wage gap (Kabubo-Mariara, 2003). While Neumark (1988), Cotton (1988), and Oaxaca and Ransom (1994) addressed the index number issue, Appleton et al. (1999) focused on both issues. However the effect of discrimination is to reallocate wages only within each type of work and that the subsequent estimation of wage discrimination is subtle to variances in the distribution of characteristics across males and females. (Neumark ,1988), His views have been embraced by Glick and Sahn (1997), Paternostro and Sahn (1999), and Appleton et al. (1999), but amended to suit individual countries.

Agesa (1999) estimated the urban- to- rural pay gap independently for males and females. The study decomposed the gap into two components; due to urban to rural differences in observable characteristics, and differences in returns to observable attributes. The results were that the percentage of the wage gap resulting from the gain in returns to observable characteristics is greater for men than for women. The findings also indicate that a considerable gender pay gap occurs in urban zones, and that the major portion of the gap is due to discrimination by urban employers.

Kaifa (2005) study on gender wage differentials in Kenya concludes that a considerable gender wage gap occurs in favor of males. The study attributes (75%) of the gap to differences in productivity enhancing characteristics while 25% of the gap result from discrimination. Agesa et al (2013) evaluated the partial input of each wage-determining covariate within the gender pay

and found that the industry, occupation, higher education and region covariates are the primary covariates driving gender differences in characteristics and the return to characteristics.

2.5. Overview of Literature Review

The study reviewed various theories to examine the wage determinants in Kenya. Theories reviewed include: the efficiency wage theory; the rent sharing theory: the human capital theory; the compensating wage differentials, and the wage bargaining theory. The empirical literature examined various studies done on the determinants of wages. The key variables examined include: the level of education and experience; trade union and union membership; the minimum wage legislation and the size and the ability of the employer, and gender wage gap. Apart from Okwema (2018) study that used data from domestic workers, other studies—focused on wage earnings in general and not wages of domestic worker. It is not very clear the extent to which the variables in the study determine wages of domestic workers in Kenya. This shows an empirical gap exists on the determinants of wages of domestic work which hence provided a justification for the study.

From the literature review, there is extensive evidence of a positive correlation between the levels of education or years of schooling and employee earnings. This underscores the importance of the human capital theory in wage determination although some studies undermine its relevance. The study therefore applied the Mincerian (1974) human capital theory as the model framework to investigate the determinants of wages of domestic workers. This is because workers returns in a free market economy replicate the marginal productivity which is accrued from birth or from their investment throughout their life. This can be estimated by Mincer log wages regression equation that conveys the logarithm of individual wages. The equation was therefore modified by adding other Independent variables explained in the literature review such as gender, ability to pay, collective bargaining agreement and minimum wages regulation in order to assess how these factors determine the pay for domestic workers in Kenya.

Studies reviewed on gender wage difference particularly in Kenya agree that a considerable disparity in wages exists in favor of males to females but differ on causes of the gender wage gap. While some studies (see Oaxaca, 1973 and Blinder, 1973) attribute the gap to

discrimination, other studies attribute the wage gap to diversity in productivity enhancing characteristics of workers—other than discrimination. Kabubo-Mariara (2003) attributes the wage gap to the sector in which one is employed. Other studies (Okwema, 2018) omitted the gender wage gap. With these diverse findings and lapses in the literature, there was need for this study to evaluate the objective on—gender earnings disparity in domestic work and what exactly are the key determinants of wages of domestic workers.

CHAPTER THREE: METHODOLOGY

3.1. Introduction

This chapter covers the methodology applied in the study. It presents: a theoretical framework, model specification, variables and their operationalisation, sample and data collection procedure and finally data analysis techniques.

3.2 Theoretical Framework

The study wass anchored on the Human Capital framework of Mincer and Polachek (1974). The framework shows that individual earnings in the labour market depend on human capital stock accrued by an individual over time.

Mincer and Polacheck (1974) considered the following relation:

$$E_t = E_{t-1} + rC_{t-1}$$
 (1)

Where:

The Gross earnings in period $t(E_t)$ is the sum of Gross earnings in period t_{t-1} (E t-1) and the return on net investments in period $t - 1(C_{t-1})$ in dollar terms

The average rate of return(r) on investment in human capital is presumed to be constant in each period.

Let $k_t = C_t/E_t$ represents the ratio of investment undertaken in period t to gross earnings undertaken in initial period. The ratio estimates the percentages of an individual's time consumed in investing in human capital. k_t is the investment in time equivalent units (Ben-Porath 1967).

Therefore:

$$E_t = E_{t-1}(1 + rk_{t-1})$$
(2)

By recursion

$$E_t = E_0(1 + rk_0)(1 + rk_1) \dots (1 + rk_{t-1})$$

The term rk is a small fraction hence a Logarithmic approximation on $ln(1 + rk) \approx rk$

Hence:

$$1_n E_t = 1_n E_0 + rk + rk + \cdots rk$$

Since net of investment earnings costs are

$$Y_1 = E_1(1 - k_t)$$

Then;

Investments take the form of schooling as well as both formal training as well as informal post school training

(Mincer and Polachek, 1974). This analysis separates the k terms as shown in equation.. 5

Where:

 k_i are nvestment percentages during the time of education and k_j are investment ratios during the post school experience.

After adding the costs of schooling to opportunity costs of education and then deducting students allowances and any bursuries allotted to the student,

$$k_i = 1$$

Hence:

This model assumes that post school investment ratios k_j are projected to drop progressively with continuous work experience and with the investment motive of obtaining and sustaining market earning control. The assumption arises from optimum distribution of investment outflows models C_t over time. As t rises, the residual operative lifespan (T-t) becomes smaller. Since (T-t) is the span of the settlement duration on investment within period t, inducements to invest and the amount of investment slows within an employee lifetime. This is factual for C_t a fortiori for k_t . With an upward C_t , K_t , C_tK_t , E_t increases and k_t becomes the proportion of C_t to E_t .

3.3. Model Specification

3.3.1. Wage Equation

Mincerian human capital earnings equation provided a basis for empirical studies on determinants of wage across individuals. The equation derived from equation ...6

is the following:

 $L_n Y$ is the natural Log of wages earned by employees.

 β_1 is the coefficient of schooling estimating investment returns to schooling and is assumed to be constant. X and X^2 quadratic experience term. Their coefficient β_2 and β_3 capture the concavity of the observed earning profile and are assumed to be positive and negative respectively.

This study extended the Mincer (1974) model estimate to include other determinants of wages of domestic workers that were analyzed in the study as shown in the logarithmic linear equation.. 8

The estimable form of the model was specified as:

$$In W = a_0 + a_1 S + a_2 X + a_3 X^2 + a_4 A + a_5 R + a_6 D_1 + a_7 D_2 + a_8 D_3 + a_9 D_4 + \varepsilon \dots (8)$$

Where:

W =wage rate

S =Years of schooling

X =Years of experience

a =Age of domestic worker

R = Total Returns (Earnings) of the employer

 D_1 = Gender of domestic worker

 D_2 =Marital status of the domestic worker

 D_3 =Union membership status

 D_4 = Type of work performed by the domestic worker

3.3.2 Gender Wage Gap Decomposition Method

The study applied Oaxaca (1973) and Blinder (1973) gender pay decomposition technique to analyse the gender pay gap between male and female domestic workers in Nairobi County. Oaxaca (1973) suggested the use of discrimination coefficient (D) to measure discrimination:

$$D = \frac{W_m/W_f - (W_m/W_f)^0}{(W_m/W_f)^0}$$

Where

 W_m/W_f is the observed relationship between the male and female wages and $(W_m/W_f)^0$ is the males to females wage proportion where discrimination is absent. The assumption is that where discrimination does not exist, on average, women would receive the same wage with their male counterparts as the wage structure would be the same (Oaxaca, 1973).

The total difference in wages for both genders in logarithmic form can be expressed by,

$$\Delta InW = In\overline{W}_m - In\overline{W}_f$$

The Oaxaca-Blinder (1973) decomposition equation is:

$$In\overline{W}_m - In\overline{W}_f = \overline{X}_m \hat{B}_m - \overline{X}_f \hat{B}_f + \overline{X}_f \hat{B}_m - \overline{X}_f \hat{B}_m$$

Therefore

 $In\overline{W}_m - In\overline{W}_f = (\overline{X}_m - \overline{X}_f)\widehat{B}_m + (\widehat{B}_m - \widehat{B}_f)\overline{X}_f$ Where; the first term $(\overline{X}_m - \overline{X}_f)\widehat{B}_m$ refers to differences in characteristics between males and females and the second term $(\widehat{B}_m - \widehat{B}_f)\overline{X}_f$ captures the discrimination effect. Therefore Oaxaca (1973) Decomposition function of the malefemale wage gap can hence be stated as:

$$\ln W_m - \ln W_f = X_m (\beta_m - \beta_f) + X(\beta^* - \beta_f) + (X_m - X_f)\beta^*$$

Where $\ln W_m$ - $\ln W_f$ denotes the variance in the mean logarithm wage for males and females respectively; X_f and X_m are the vectors of worker attributes for females and males, for instance

the variable measuring years of experience at work. The first and second terms in brackets correspond to the proportion resulting from differences in the coefficients influencing the levels of wages for males and females respectively, while the last term corresponds to the portion of the gap that is due to individual differences in X distributions by gender.

3.4. Variables and Their Operationalisation

Table 3.1. Definition and **Dimension of Variables**

Variables	Name	Definition	Measurement	Expected sign			
			scale (and unit)				
Dependent Variable							
W	wage rate	The monthly wage received by domestic workers	Monthly wage paid in Kenya Shillings	+ve			
Predictors ((co-variates)		<u>. </u>				
S	Level of education attainment	Level of education of the worker in primary, secondary and college level.	Level of education attainment. Primary, secondary or college	+ve			
X	Experience	work experience of the worker in terms of the number of years worked	Years of work experience				
A	Age	Age of the domestic worker	Years				
R	Earnings	Monthly household earnings (a proxy of employer's ability to pay a certain wage rate	Kenya Shillings	+ve			
D_1	Gender	Dummy variable of gender (whether female or male)	Female 1 Male 0				
D_2	Marital status	Dummy of variable of marital status of domestic worker	Married 1 Single 0				
D_3	Union membership(KUDHEIHA)	Dummy variable of domestic worker's union membership	Member 1 If not 0				
D_4	Type of Work	Dummy variable takes	House work 0 if otherwise 1				

The monthly wage payable to a domestic worker (W) is measured in Kenyan shillings. Wage is influenced by the co-variates namely: level of education attainment(S) measured by the number of years spent in primary, secondary and college, age(A), experience of the domestic worker(E), gender(D₁), Marital Status(D₂), Union Membership (D₃)and type of work(D₄) of the domestic worker as shown in Table 3.1. The number of years a domestic worker spend in primary, secondary and /or college schooling (S) would be expected to influence the wage earnings of a domestic worker positively. Several studies support this argument. (Psacharopoulos & Patrinos, 2004, Manda 2001, Wambugu, 2003; Kimenyi et al, 2006; Okwema, 2018 and Tijdens & Wambugu, 2012).. Tijdens and Wambugu (2012) study on "wages in Kenya" found workers with higher upper secondary education to have a relative high median wage. Okwema (2018) study on "Wage determination in the domestic services sector in Kahawa and Githurai Estates in Kiambu County found the level of education, among other factors such as work experience and type of residence positively correlated to wage aernings of the domestic worker.

The earnings of the employer (R) would be expected to have a positive sign (+ve). This means that the greater the earnings of the employer, the more pay domestic workers would earn. Wing (2006) found employees' earnings to be absolutely correlated with reservation earnings of female employers. Tijdens and Wambugu (2012) observed that larger firms offer higher average wages than smaller firms. The consequence would be that any regulations imposed to increase domestic workers' wages would not have much impact if the employers returns (R) were small. Employers would pay according to their savings or earnings (Grant and Blue, 2007).

Domestic worker's age (A) would be expected to influence earnings of the worker positively hence the positive (+ve) sign. The assumption would be that age (A) and experience (E) are correlated. Wambugu (2003) study on earnings and human capital in Kenya found age and schooling, to be positively correlated to wage earnings whilst Okwema (2018) study conducted in Kahawa and Githurai in Kiambu County, found work experience to be positively correlated to the domestic workers earnings. Manda (2001) study on the "incentive structure and efficiency in the Kenyan civil service" also points a significant effect of work experience and wage earnings of workers.

The gender (DI) of a domestic worker was assigned a dummy F=0 for female domestic workers and a dummy F=1 for male domestic workers. However some studies point that most domestic workers are mainly female. According to ILO (2010), 75 percent of domestic workers are female globally. Njeru (2010) reveals a similar situation in Kenya too. Hence the proportion of male workers to female workers would have a significant influence on the results of the study. According to Oaxaca (1973) and Blinder (1973), gender pay gap exists due to discrimination. Where discrimination does not exist, women would receive the same wage with their male counterparts on average as the wage structure would be the same (Oaxaca ,1973).

Marital status of the domestic worker (D2) dummy was assigned the value of 1 if married and 0 if single. Unionized domestic workers are depicted by dummy 3 (D3). In developed countries unions have a substantial positive outcome on wages, but with substantial disparity in the estimated size of the outcome (Lewis, 1986; Booth, 1995). These findings differ in Africa and by extension Kenya. While some studies show a positive correlation between trade unions effects and earnings of workers, other studies show a negative correlation. Galuscak et al. (2008) found a strong influence of institutional factors such as trade union bargaining strength on wages of newly hired employees. Manda (1997) found wages of unionized workers in the manufacturing sector 22% lower than those of the non-union workers. However Bigsten et. al. (2005) found inconsistences in the earlier studies done on the relationship between effects of trade unions and wage earnings.

The wages of a domestic worker would be influenced by the type of work performed by the domestic worker (D_4) . The variable took a duumy of 1 where the work performed was household and a dummy of 0 if otherwise. The regulation of wages order of 2018, categorises a domestic worker as a general labour who performs the services of a cleaner, sweeper, gardener, children'sayah, house servant, day watchman, and a messenger. Article 1 of the ILO Convention defines domestic work as "work performed in or for a household or households" (ILO, 2011) Report IV (1). Otherwise (0) dummy included any other worker undertaking a different task not classified in the wages order under general labour such as waiters or driver among others.

3.5. Sample and Data Collection

3.5.1 Sampling Procedure and Sample Size Determination

The study used cross sectional data gathered from the respondents across households within langata Sub County in Nairobi County. Nairobi County is divided into eight sub-counties namely: Westlands, Dagoretti, Kasarani, Langata, Starehe, Kamukunji, Embakasi, Njiru and Makadara. Langata Sub County was identified for this study using multistage sampling technique. The County has the largest number of domestic workers in Kenya. In the year 2013, it registered a population of 1 million domestic workers across 1.15 million households (Government of Kenya, 2013). Moreover langata is a residential sub county bordering Kibera slum which is one of the largest slums in East and Central Africa. The slum provides low cost housing to domestic workers hence making it possible for domestic workers who mainly reside within the slums to obtain employment in the neighbouring Langata Sub County. The domestic workers commute daily to their employer's premises to provide labour.. To obtain the required number of respondents, a further sampling was done from the population of 1.15 households in Langata sub county. A sample size of 306 domestic workers was determined using Krejcie and Morgan (1970) formula from the overall population. Orodho and Kombo (2011) recommend the use of the formula in a large population of a cross section data where a sample size has to be identified as a representation of the population.

3.5.2 Data Collection Procedure

Data was gathered using Interviewer-administered questionnaires to obtain relevant information from the 306 respondents sampled within Langata Sub County. Both closed and Open ended questions were used in data collection. Closed questions ensured accuracy of data as well as enabling respondents to offer an in depth and comprehensive information while Open ended questions allowed the respondents to select the choice that best described their position at hand.

Face to face Interview with household employers and domestic workers was also used as data collection technique to obtain required information. The domestic worker or the domestic worker employer was randomly identified and contacted to obtain information required in this study. Referrals were also relied on in identification of other domestic workers or their employers.

The responses were recorded and then subjected to verification and cleaning to ensure data was reliable and complete. Qualitative data was coded correctly and then uploaded into spreadsheet

document for analysis to be done thereafter. The data obtained was used to analyse the determinants of wages of domestic workers in langata Sub County. Information—such as, the level of awareness of employers and domestic workers about minimum wage legislation requirements; earnings of domestic workers; if a worker is unionised or not, education level of the domestic earner, age and gender, and work experience and the monthly wage earnings.

3.5.3 Data Analysis Techniques

Completed questionnaires were coded, analysed and checked for validity to ensure the scores obtained from the respondents were important pointers of the model being assessed. After data cleaning, tabular and graphical presentations were produced for various variables. Descriptive measures of central tendency, such as the mean, cross tabulation and others aided in giving an understanding of distribution and magnitudes. Comparison of means in key variables was performed through ANOVA. Least square regression was used to estimate the regression equation. To ensure that the estimated model was appropriate in ensuring consistent coefficient estimates, various diagnostic tests were done ranging from variance inflation factor (VIF) of multicollinearity to Ramsey (1969) regression equation specification error test (RESET) and Breusch-Pagan test of heteroscedasticity. VIFs greater than five symbolises serious levels of multicollinearity thus implying that the coefficients are poorly estimated and the p-values are questionable. Multicollinearity occurs when two or more predictor variables are highly correlated to each other, such that they do not provide independent information in the regression model. If the degree of correlation is high enough between variables, it can cause problems when fitting and interpreting the regression model. Model specification test was conducted to test if the model was specified appropriately.

CHAPTER FOUR: FINDINGS

4.1 Introduction

This chapter presents findings and interpretation of data collected on the determinants of domestic workers' wages in Langata sub-county. The chapter covers three broad sections starting with a description of summary of statistics (Section 4.2), followed by results of diagnostic tests preceding the Classical Linear Regression Model (CLRM) in Section 4.3 and presentation of the main research findings by study objective (Sections 4.4 and 4.5).

4.2 Descriptive Statistics

Data analysed was obtained from 306 respondents selected from house helps and domestic workers' employers located within Langata sub County of Nairobi County. The findings of the study were: 95 percent of the respondents were born in rural areas of Kenya mainly from western Kenya Nyanza and Machakos region and only 5 percent were born in the urban area mainly in the slums of Kibera; 32% of domestic workers resided in their employer's home while 68% commuted from rented premises within their employers' neighbouring slums. In terms of gender, 25 percent of domestic workers were male while 75 percent were female. Majority (84%) of house workers interviewed were married whereas 16% were single. Table 4.1. details the descriptive statistics.

With regards to age, 34% of respondents were between 18 and 24 years, 22% were aged 25-30 years, 15% were aged 31-34 years whereas 30% were older than 34 years. This means that most of the respondents were youthful as per the definition of Kenyan constitution that classifies youth as anyone between 18 and 35 years (Government of Kenya (GoK), 2011). At least three fifths of respondents (68.85%) indicated that they had previous working experience which averaged 3.716 years and was higher among females (t = -1.48**). However, males had higher experience working with the current employer than females (1.78 years versus 1.26 years respectively, t = 5.78**).

Table 4.1: Descriptive Statistics

Variable		Full Sample	Male	Female	Current wage	Desired Wage	Statistic ('**'=p<0.05)
Birthplace	Rural	95%	74%	21%	8,992.30	14,819.44	t = 1.89**
	Urban	5%	26%	79%	9,379.17	12,771.43	
Residence	Employers home	32%	88%	74%	9,191.63	12,994.44	t= -3.83**
	Rental premises	68%	12%	26%	9,602.56	16,566.04	
Gender	Male	25%			9,346.32	15,383.33	t= 1.94**
	Female	75%			9,141.89	13,548.19	
Marital Status	Single	16%	26%	24%	8,750	10,810.34	F=10.22**
	Married	84%	58%	65%	9,685.27	14,705.88	
	Divorced	0%	16%	12%	8,263.88	19,500	
Age	< 18 years	0%	4%	3%	8,300	10,000	F=1.39
	18 – 24 years	34%	28%	29%	8,988.76	14,289.47	
	25-30 years	22%	28%	27%	8,851.85	13,931.82	
	31-34 years	15%	18%	17%	10,254.72	14,900	
	> 34 years	30%	22%	24%	9,611.111	14,705.13	
% of domestic workers with previous working experience		68.85%	55.41%	73.16%			t = -1.48**
Years of previous experience		3.716	2.62	3.82			t = -1.18
Years of experience with current employer		1.39	1.78	1.26			t = 5.77**
Highest	Primary	86%	65%	70%		15,394.74	F= 23.88**
education	Secondary	14%	29%	25%		10,086.21	
attained	College	0%	6%	5%		-	
Monthly wage		9,296.72	9,346.32	9,141.89			
Minimum wage awareness		26.8%	39.19%	22.94%			
Trade union membership		8%	10%	7%			
Monthly wage considered fair (Ksh)		14,318.18	15,383.33	13,548.19			

On average, the domestic workers had 3.716 years of previous experience. All respondents had basic school level of educational attainment with a majority (86%) having attained primary school level of education while 14% of them had secondary school level of education. Typically,

majority of domestic workers have basic education level (Valenzuela and Mora, 2009; ILO, 2013) which covers early childhood development (ECD), primary and secondary levels of schooling.

The mean wage was Ksh 9,296.70 with a range of Ksh 5,000-20,000. The bottom tenth of respondents earned below Ksh 6,000, the middle 50% earned Ksh 7,500-10,000 with Ksh 10,000 being the highest amount earned by up to 90 percent of the sample whereas the top 10% of respondents earned above Ksh 13,000. The bottom 25% earned Ksh 5,000-7,500 while the top 25% earned Ksh 10,000-13000. Only eight out of the sampled 305 domestic workers earned Ksh 13,000-20,000 and their income data can be considered as outliers as shown in Figure 4.1.

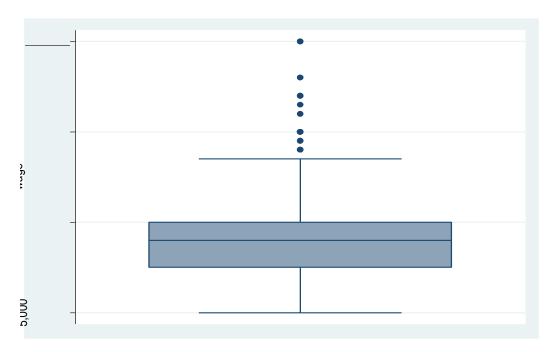


Figure 4.1: Box Plot Showing Distribution of Wage (Ksh)

Source: Author (2020)

Majority of domestic workers (90%) received wages below the minimum wage for domestic workers. The regulation of wages order of 2018 categorises a domestic worker as a general labour who performs the services of a cleaner, sweeper, gardener, children's ayah, house servant, day watchman, and a messenger. The order sets the minimum wage as Ksh 13572.90 per month. This practice violates article 41 (1) of the Constitution that confers on every worker the right to fair remuneration and the right to fair labour practices.. Article 1 of the ILO Convention t defines

domestic work as "work performed in or for a household or households" and a domestic worker as "any person engaged in domestic work within an employment relationship." (ILO, 2011) Report IV (1). This study found that all domestic workers interviewed performed jobs categorized as domestic work.

It is possible that, some employers would want to pay lower than minimum wages which explains why the wages data for this study was positively skewed. Literature has demonstrated mixed reactions to setting up of a minimum wage policy with Baaauw and Bothma (2010) as well as Cengiz, Dube, Lindner and Zipperer (2017) showing negative outcomes on employment among low income workers while Taryn et.al (2012) established positive effects on wages offered domestic workers.

4.3 Results of Diagnostics Tests

4.3.1 Normality of Data

Shappiro Wilk test of normality shown in Table 4.2.1 indicated that, all data for variables measured at ratio and continuous scales was normally distributed by high W-scores (W=>1) and low significance levels (p<0.05). Since the p-value was less than 5 percent, null hypothesis that the residuals were normally distributed should be rejected. Thus data for wage, years of schooling, age, marital status, and years of work experience could therefore be subjected to parametric techniques of data analysis.

Table 4.2: Shappiro Wilk Test

Variable	Obs	W	V	Z	Prob>z
Highest Education	306	0.96166	8.288	4.968	0.00000
Residence	306	0.98978	2.211	1.863	0.03120
Age	306	0.98585	3.060	2.628	0.00430
Gender	306	0.98978	2.211	1.863	0.03120
Years of Experience	44	0.94601	2.297	1.760	0.03916
Marital Status	306	0.99715	0.615	-1.141	0.87306
Trade Union	306	0.92543	16.120	6.531	0.00000

Source; Author(2020)

4.3.2 Test of Multicollinearity

Table 4.2.2 shows the Variance inflation factor (VIF) and tolerance statistics (I/VIF) results. Test of data for multicollinearity established a mean variance inflation factor (VIF) score of 6.35 for six variables. This being below the recommended figure of 10 indicates the absence of multicollinearity which is a desirable outcome for diagnostics. (Williams, 2015)

Table 4.3 Test of Multicollinearity

Variable	VIF	1/VIF
Highest Education	1.04	0.966083
Age	1.15	0.872213
Residence	1.34	0.746534
Gender	1.09	0.91490
Years of Experience	17.33	0.057718
Years of Exp. Sq	16.14	0.061962
Marital Status		
2	5.00	0.199945
3	6.82	0.146670
Mean VIF 8.44		

Source: Author (2020)

4.3.3 Test of Heteroskedasticity of Error Terms

Test of heteroscedasticity was carried out to evaluate the variance of error terms in the OLS regression model. Classical linear regression modelling assumes that error terms display constant variance. If this assumption is violated, the estimated parameters are not consistent. In view of this, the null and alternative hypotheses were set as:

Ho: error terms are homoskedastic

Ha: error terms are heteroskedastic

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity indicated chi2(1)=11.03 (Prob > chi2=0.0009). Therefore the null hypothesis was rejected since the respective P-value for the test was 0.00.. If the test statistic has a p-value of p<0.05), the null hypothesis of homoscedasticity should be rejected and heteroscedasticity presumed. Since the model was

found to have heteroscedasticity, instead of performing the OLS regression this study performed

generalised least square (GLS) regression.

4.3.4 Model specification - Omitted Variables Test (OVT)

The F static that measures the joint determination had an estimate value of 40.94 and was

statistically significant at one percent level. This meant that the regression model was appropriate

in the determination of wage. All the variables used jointly explained variation in wage. The

adjusted R implies that the variables jointly explained 33.54 percent off the changes in wage.

The Ramsey RESET test of omitted variables resulted in an insignificant F-statistic at 10% level

of testing [F(3, 34) = 0.29; Prob > F = 0.8322]. The null hypothesis states as "H₀: model has no

omitted variables". Findings, as presented in Table 4.4 indicate that we cannot reject the null

hypothesis hence this is a strong indication of suitable model specification.

Table 4.4.Omitted variable test (estat ovtest)

Ramsey RESET test using powers of the fitted values of Wage Considered Fair

Ho: model has no omitted variables

F(3, 34) =0.29 Prob > F =0.8322

Source: Author (2020)

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Table 4.5: Regression of Wage Against Highest Education Attained, Age, Residence, Gender, Years of Experience and Years of Experience

Variable	Coefficient	t-statistic	Significance (p-value)
Education level – Secondary	.1812765	2.91***	0.006
(Base reference: Primary)			
Residence – Rented premises	.1706958	1.36	0.183
(Base reference: Employers home)			
Age (Base reference category: < 18 years)			
18 – 24 years	4935791	-5.89***	0.000
25-30 years	6098405	-7.89***	0.000
31-34 years	696578	-5.67***	0.000
> 34 years	5340036	-7.02** *	0.000
Gender	011213	-0.11	0.913
Years of Experience	.1932752	2.55**	0.016
Years of Experience Squared	0154964	-2.24**	0.032
Marital status (Base reference category: Single)			
Married	199523	-3.18**	0.003
Divorced	. 0968735	1.07	0.291
Constant term	8.944993	30.31***	0.000
Number of obs. included in regression eq.		44	
F (degrees of freedom: 9, 34)		2.89*	*
Prob >F		0.009	4
R-squared		0.498	2
Adjusted R-squared	0.3258		
Root MSE		0.2350	05

Interpretation of the Results

Based on the model fit results (particularly significance of the resulting F-statistic), the independent variables were jointly important in explaining the variance in the natural log of wages of domestic workers in Langata Sub County of Nairobi County. From table 4.6, the F value is 2.89 at degrees of freedom of 9 and 34 and with a P value of 0.094 less than 0.01 implying that it is significant at 1 percent (F=2.89; d.f: 9, 34; p<0.01). Results of the coefficient of determination (adjusted R-squared) indicate that, 32.58% of variance of wages is explained by the variables in the regression.

Domestic workers with secondary level of education attainment had 18.13 percent higher wages than those with primary level of education ceteris paribus (p<0.05). The results in Table 4.3 indicate that the coefficient of education level was statistically significant at 1 percent. Holding other things constant, increasing the level of schooling by one year increased wages by 18.13 percent.

Domestic workers living in rented premises had 17.07 percent higher wages than those who lived at the employer's home, ceteris paribus. Compared to the domestic workers younger than 18 years, domestic workers aged 18 – 24 years had 49.36 percent higher wages; those aged 25-30 years had 60.98 percent higher wages; domestic workers aged 31-34 years had 69.65 per cent higher wages while those aged those aged above 34 years had 53.40 percent higher wages ceteris paribus. From table 4.3 the coefficient all age categories were statistically significant at 1 percent.

Years of experience had significant effect on wages so that, for every additional year of experience, the average domestic worker had 19.33 percent higher wages, ceteris paribus (p<0.05). The range of experience was 0.5 years to 10 years and using the coefficients for wages and wages squared, it was possible to calculate at how many years of experience that the log of wages were maximized by using the derivative of wages with respect to experience. Hence the log of wages is maximized at 6.33 years. In other words, the wage returns to experience climaxes at the 6^{th} year of working.

Finally domestic workers who were married had 19.95 percent lower—wages compared to those who were single, ceteris paribus. The coefficient of marital status was statistically significant at 5 percent level. On the basis of variables whose parameters are significant at 5% level of testing, five variables determine wages of domestic workers in Langata Constituency of Nairobi County namely: education level, residence, age, years of experience and marital status.

4.4 Analysis of the Wage Gap Among Domestic Workers in Kenya by Gender

The term "pay gap" refers to the difference in men's and women's median earnings. The pay gap is usually reported as either the earnings ratio between men and women or as an actual pay gap

$$Pay Gap = \frac{Men's media earnings - women's median earnings}{Men's median earnings}$$

On the other hand, "earnings ratio" gap is the division of women's mean or median earnings with men's mean or median earnings:

Earnings ratio =
$$\frac{\text{women's median earnings}}{\text{Men's median earnings}}$$

This study made a strong assumption that in the absence of discrimination, male and female with similar personal demographic attributes and identical in their level of productivity receive equal remuneration. However on the contrary, field data revealed monthly wage among domestic workers in the study area to be slightly higher among male than female respondents (Ksh 9,346.32 versus Ksh 9,141.89 respectively, p<0.05).

Wages were also higher among domestic workers living outside the employer's home (Ksh 9,602.564 versus Ksh 9,191.63 respectively, t= -3.83**), higher among married respondents and those with primary level of schooling. Respondents were also asked to state their level of ideal wage which they consider fair for them and it had a mean of Ksh 14,318.18 (Ksh 15,383.33 and Ksh 13,548.19 for male and female respondents respectively).

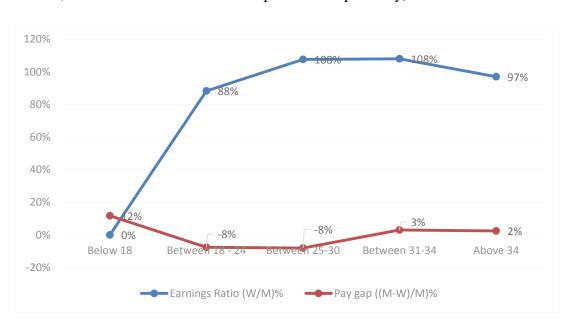


Figure 4.2: Wage Earnings Ratio of Women to Men and Pay Gap

Source: Author (2020)

Oaxaca (1973) Decomposition function of the male-female earnings gap can be expressed as:

$$\ln W_{m} - \ln W_{f} = X_{m}(\beta_{m} - \beta_{f}) + X(\beta^{*} - \beta_{f}) + (X_{m} - X_{f})\beta^{*}$$

Using the Oaxaca command in stata total explained wage gap is 0.365; in other words, for every additional year of work experience, there is a 36.5% unexplained gender-wage difference between the male and female domestic workers.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary, conclusion and recommendations of the study including suggestions for further research of the study on the determinants of wages of domestic workers in Langata Sub County in Nairobi County in Kenya.

5.1. Summary

This study sought to find out the determinants of wages of domestic workers in Langata Sub County in Nairobi County. The specific objectives of the study were to analyse the determinants of wages of domestic workers in Nairobi County and the wage gap based on gender of domestic workers. The study was covered a sample size of 306 domestic workers all working in households located in Langata Sub County and was drawn from domestic workers of working age in Kenya (18 to 64 years). The findings of the study were that education level attainment, work experience, type of residence of a domestic worker, marital status significant hence bearing a significant relationship with the wage earnings of domestic workers. Most of the respondents had basic educational attainment, were youthful and married with males being more experienced with current employers than females but females having higher previous experience at work. There were no significant differences in education attainment by gender. The mean wage for domestic workers in langata sub county was Ksh 9,296.70, with over 50 percent of the workers earning between Ksh 7500 to 10000 of which 90 percent of these workers earned a wage of KES 10000. Males earned a higher average wage than female respondents (Ksh 9,346.30 and Ksh 9,141.80 respectively). Few Domestic workers had awareness of minimum wages (26.8 percent) but even majority of those domestic workers aware of the minimum wage earned below the minimum wage. Majority of the domestic workers (92 percent) were not unionized and were not aware of an existence of a domestic workers union (KUDHEHIA). In terms of wage returns to number of years worked, the optimal years of experience is 6.. Thus domestic workers with lower or higher than six years of working experience are likely to earn less wages which may be a result of aspects such as their productivity.

5.2. Conclusion

The study concludes that the level of education, work experience, worker's residence, marital status and age variables are significantly correlated to wage earnings of domestic workers in Langata Sub County thus giving a different perspective approach to domestic workers' wage determination in addition to minimum wage regulation by the government. This study also concludes that domestic work employment is mainly characterized by employees with low education (most workers attained primary level), limited awareness of minimum wage legislation and labour practices in the domestic sector such as the existence of the trade union (KUDHEIHA) that covers domestic workers. The possibility of limited understanding of the labor market laws, Acts and policies and low education, exposes the workers to unfair and low wages mainly below the minimum wage.

Finally, it emerged that gender-wage difference increases with working experience because for every additional year of work experience, there is a 36.5% unexplained gender-wage gap between the male and female domestic workers. It can therefore be concluded that gender pay gaps in favour of male employees among domestic workers in Langata Sub County of Nairobi County exists due to discrimination.

5.3 Recommendations

Based on the research results and conclusions on the determinants of wages of domestic workers in this study, the study gives the following recommendations for policy action and for further study to be conducted.

5.3.1 Recommendations for Policy Action

- 1. The government should formulate education policies that will ensure 100 percent transition of all primary school graduates to secondary level education so that every child is able to acquire secondary education. This would enable the labour force in the Country to possess education required to develop human capital. A higher level of education would imply better skills and an increased marginal productivity of the domestic worker.
- 2. The government should pursue an overall approach through policies and regulations to develop the domestic work sector. When setting the minimum wage, variables such as domestic workers'

education level, experience, age and residence should be considered. Hence the need to develop a holistic wage structure for domestic workers other than just setting the minimum wage.

- 3. The Ministry of Labor should take a more proactive role (in addition to setting minimum wage) to protect domestic workers from poor wages by initiating and conducting regular education campaigns to ensure that domestic workers employers adhere to the minimum wage regulation and that domestic worker are aware of their labour rights.
- 4. KUDHEHIA should conduct a massive campaign to sensitize domestic workers on the need to join the union. Trade unions fight for better terms and conditions of workers. Therefore joining the union would enhance domestic workers bargaining strength thus ensuring that their employers comply with the minimum wage legislation.
- 5. It is imperative for employers of domestic workers to increase compliance with minimum wage policy as set by the Ministry of Labour. The ministry should impose strict penalties on employers who do not comply with the labour laws.
- 6. In order to address rising gender-wage differences at higher levels of experience, it may be necessary to introduce a training program in technical institutions to sensitize domestic workers on issues to do with discrimination, rights and skills such as salary negotiation.

5.3.2 Recommendation for Further Study

This study made use of cross-sectional data to investigate determinants of wages of domestic workers in Kenya. Granted that cross section data has time limitations, future studies should apply longitudinal to investigate time paths of inter temporal income profiles between different groups (say male versus female workers) in their life cycle. Such studies can also determine whether the gender-wage gaps manifest themselves along the tenets of productivity and specific chores besides other demographic attributes such as health status (disability), religion and ethnicity.

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APPENDEX 1: QUESTIONNAIRE

PART A: TO BE ANSWERED BY THE DOMESTIC WORKER

Tick V where appropriate in the spaces provided for the questions below 1.State your place of birth a) Rural ----b) Urban-----2. State your place of work in Nairobi County (Makadara----(1) Kamukunji-----(5) Lang'ata----(6) Starehe -----(2) Dagoretti-----(3) Westlands----(7) Kasarani----(4) Embakasi-----(8) 3.State your place of residence Employer's home----(1) Rental premises----(2) 4) State your gender Male ----(1) Female ----(2) 5. What is your Marital status a) Single ----(1) ----(2) b) Married 6. State your age (a) Below 18 ----(1) (b)18-24----(2) (c) 25-30 ----(3) ----(4) (d) 31-34 (e) 35 and above ----(5)

6.State the nat	ure of work performed before your current job if any,
Household	1
Nanny	2
Cleaner	3
Any other	4
7. State the year	ars of experience you might have had before your current Job
8.State the nat	ure of work performed in the current job
Household	1
Nanny	2
Cleaner	3
Any other	4
10.State the year	ears of experience in the current job
(a) 1-5 years	(1)
(b) 6-10 years	(2)
(c) 11-19 year	rs(3)
(d) 20 and Ab	ove(4)
11. Indicate th	ne number of years spent in schooling in each level of education attained. (If no
education attai	ned tick(v) 5 only
Primary level-	1
Secondary lev	el2
College	3
University	4
Did not attain	any education5
12. What profe	essional qualification if any, did you possess?
a) Caterir	g and Hospitality(1)
b) Housel	xeeping(2)

c)	Domestic Workers Training-		(3
d)	No Training Qualifications		(4
e)	Any Other Qualification		(5
13.W	That is the highest level of educ	ation of your parents?	
	Mother	Father	
Prim	ary level	(1)	
Seco	ndary level	(2)	
Colle	ege	(3)	
Univ	ersity	(4)	
Did 1	not attain any education	(5)	
14. `	What is the highest level of edu	cation did your father attain?	
Prim	ary level	(1)	
Seco	ndary level	(2)	
Colle	ege	(3)	
univ	ersity	(4)	
Did 1	not attain any education	(5)	
15. S	State your monthly wage earning	g in Ksh. excluding benefits	
Belo	w Ksh. 5000		
Ksh.	5000-7500		
Ksh.	7500-10000		
Ksh.	10000-12500		
Abov	ve Ksh. 12500		
16. <i>A</i>	Are you aware of the minimum	wage regulation	
Yes-	(1) No	(2)	
17.A	re you a member of a trade union	on?	
Yes-	1		
No	2		

18. If you are not a member	, what are the reasons for not jo	ining a trade union	?
•	union in existence		
•	oin the domestic workers trade u		
	, hence I cannot join		
	above		
	a fair wage according to your wo		·
Yes1			
No2			
20. What wage would you	consider to be a fair wage?		
Ksh:			
21. What other benefits do y	ou receive from your employer	if any?	
BENEFITS	Tick where appropriate	code	
Accommodation		1	
Medical		2	
NHIF cover		3	
Meals/Meal allowance		4	
NSSF		5	
Others(specify)		6	
Others(specify)		7	
22. How would you describ	e your working conditions?		
Very favorable		1	
Favorable		2	
Unfavorable		3	
Very unfavorable		4	

The End

Thank you for taking your time to fill the questionnaire

PART B: TO BE FILLED AN EMPLOYER OF DOMESTIC WORKER

1. State your place	of birth			
a) Rural				
b) Urban				
2.State your place	of residence in N	Nairobi County.		
(Makadara	(1)	Kamukunji		(5)
Starehe	(2)	Lang'ata		(6)
Dagoretti	(3)	Westlands		(7)
Kasarani	(4)	Embakasi		(8)
3.State the nature of	of your tenure at	your residence.		
Free hold	(1)			
Lease hold	(2)			
4) State your gende	er			
Male	(1)		Female	(2)
5. What is your Ma	arital status			
a) Single		(1)		
b) Married		(2)		
C State				
6. State your age		(1)	`	
(a) Below 18		(1)	•	
(b) 18-24		(2		
(c) 25-30		(3)	•	
(d) 31-34		(4)	,	
(e) 35 and above		(5))	

/. What is the size of your family?		
a) Below 5 members	1	
b) Between 5 and 10 members	2	
c) Above 10 members	3	
8) State the number of years you have	engaged your domestic worker?	
(a) 1-5 years	(1)	
(b) 6-10 years	(2)	
(c) 11-19 years	(3)	
(d) 20 and Above	(4)	
9. What is the highest level of Educati	ion did you attain?	
Primary level	•	
Secondary level		
College		
University	4	
Did not attain any education	5	
10. Did you consider any professional Yes(1) No	training when hiring your domestic wo	orker?
11. What are your sources of income?	<u></u>	,
SOURCES OF INCOME	AMOUNT IN KSH. PER MONTH	CODE
Wage/salary Earnigs		1
- · - ·		

Wage/salary Earnigs	1
Business Earnings	2
Farm earnings	3
Rental income	4
Family earnings	5
Other sources (specify	6

12. How did you hire yo	our worker)	
Through Employment b	ureau(1)	
Through a friend	(2)	
Through a relative	(3)	
Other/s	(4)	
	of the minimum wage i	regulation that governs the pay of domes
workers?		
Yes	(1)	
No	(2)	
14.If yes, do you pay yo	our domestic worker the min	nimum wage?
YES	(1)	
NO	(2)	
15. Do you feel you pay	a fair wage to your domes	tic worker according to their work?
Yes(1)		
No(2)		
16. Indicate what wage	you would consider to be a	fair wage
Ksh		-
17. What other benefits of	do you offer your domestic	worker?
Benefits	Amount	Code
Accommodation		
medical		
NHIF		
Meals		
NSSF		

Others

18. What do you think should be done to improve the wages of domestic workers

THE END THANK YOU FOR TAKING YOUR TIME TO FILL IN THE QUESTIONNAIRE