

**INTER-INDUSTRY GENDER WAGE DIFFERENTIALS IN KENYA**

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE AWARD  
OF MASTER OF ARTS IN ECONOMICS OF THE UNIVERSITY OF NAIROBI.**

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**DECLARATION**

I hereby declare that this research project is my original work and has not been done and presented in any institution before for awarding of a degree or any certificate.

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**X50/8337/2017**

Signature ..... Date.....

This research project is submitted to me for examination and awarding of marks as a university supervisor:

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Signature ..... Date.....

## **DEDICATION**

I dedicate this project to the almighty Allah and my family members for their tremendous help, love and supplications. They are a blessing.

## **ACKNOWLEDGEMENT**

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

AfDB	African Development Bank
GDP	Gross Domestic Product
ILO	International Labour Organization
KNBS	Kenya National Bureau of Statistics
OJT	On-the-Job Training
SDGs	Sustainable Development Goals
STEP	Skills Toward Employment and Productivity
WEF	World Economic Forum
WEO	World Economic Opportunity

## **ABSTRACT**

In developed countries, the gap between male and female pay has been reducing significantly due to legislations and regulations making it more equalised in certain professions. However, globally, the gap is widening, and even where the gap is reducing, it is very slow. Using the World Bank's (2013) Skills Towards Employability and Productivity Survey (2013), this study seeks to study inter-industry gender wage gaps in Kenya by adopting the (Fields & Wolff, 1995) and (Horrace & Oaxaca, 2001) to capture inter-industry male-female pay variations. The results of the inter-industry gender pay differences reveal that even after accounting for personal characteristics, gender pay differences across the industries (except in the agriculture, fishery, and mining sector) women still receive less pay than men. In the commerce and trade sector, men's wages were 27.2% higher than that of women and based on counterfactual analysis their earnings would increase by 17.5% if women's had the same characteristics as men. In the services sector men earned 28.5% higher than women and that women's wages would increase by 22.0% if women's had the same characteristics as men. In the manufacturing and construction sector, men earned 23.1% more than women and based on counterfactual analysis their earnings would increase by 18.4% if they had the same characteristics as men. Admittedly, we find evidence of gender penalty in Kenya's labour market as there exists inter-industry gender wage differentials explained less by the observable characteristics; age, marital status, experience, tenure, education, profession, and sector of employment.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background**

Gender wage disparities exist in both developed and developing economies and has come on the top agenda because of its perverse implications on poverty, as well as sustainable development. That is the reason why it is among one of the Sustainable Development Goals (SDGs Goal 5) that aims to promote gender equality, and by extension, closing the persistence of stubborn gender gaps. Available evidence particularly in Sub-Saharan Africa (SSA) indicates that women are more likely to be employed on a part-time basis, in the informal sector, and often in precarious employment with less pay (Agesa, 1999; Kabubo-Mariara, 2003; Nordman & Wolff, 2009). These shortcomings explain gender wage differentials with patterns more pronounced in some industries than others. Also, over the last few decades, there has been considerable momentum on the examination of the existence of inter-industry gender pay disparities, both across time and countries with certain sectors paying more than others even after controlling the divergence in worker's endowments. It is even more pronounced when examined from a gender perspective.

Gender parity is indispensable to the growth and development of countries since it is vital for the competitiveness of a country and the efficiency of a firm. Kenya was ranked 76 in the World Economic Forum's 2017 and 2018 Gender Gap Index. Kenya lags behind its peers in the East African region and sub-Saharan Africa as well.

Globally, an estimated \$160.2 trillion is lost in terms of human capital due to gender disparity. This is double the value of global GDP (World Bank, 2018). Countries that are more gender-equal such as Iceland, Finland, Sweden among others, rank top among the happiest nations in the world, motivated by social inclusion and free public services. International Labour Organization (ILO) (2018/2019) report shows gender pay gaps are found almost in all countries. First, on average,

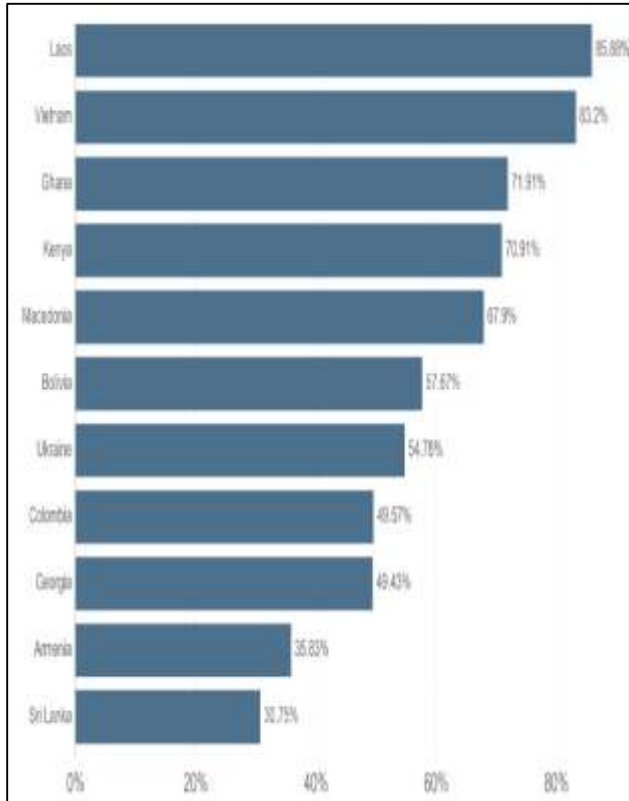
women earn 20% less than men across the world. Second, factors that often determine wages such as level of education do not seem to explain the gender pay gap. Mothers earn lower wages than non-mothers, a situation commonly referred to as ‘motherhood penalty’. There is also a tendency for wages to be lower in enterprises where the workforce is predominantly made of women. Closing gender wage disparities is vital to attaining social justice for employed women and achieving the 2030 Sustainable Development Goals.

The greatest social injustice world-over is the presence of the gender earnings disparities. In the past few years, there have been attempts to substantially reduce this phenomenon, with developed countries having huge strides towards this goal. Even though the gender earnings gap is narrowing in developing countries, they still lag behind, and hence, more efforts are needed if the Sustainable Development target of 8.5 is to be achieved. Figure 1 shows the unadjusted gender wage gap in 2014 across countries. The gap is characterised by stark differences with Laos having the highest women’s income as a % of men at 85.88%. Unlike in countries such as Bolivia, Macedonia among others, Kenya’s gender gap is relatively higher with the ratio of women’s income as a % of men being 70.91%.

Nonetheless, the need for equal pay for equal opportunity across gender is paramount and thus the need to continue ensuring that the gap is addressed. Figure 2 presents the proportion of firms with top managers and disparities that exist globally. East Asia and the Pacific region has the highest proportion of firms with female managers at 32.75%. In the East African region, Kenya lags behind its peers (i.e. Uganda, Tanzania and Botswana) and even lower than Sub-Saharan Africa’s with an average of 15.78%. According to the Africa Human Development Report (2016), gender disparity costs the continent an estimated \$95 billion annually. This trend, the report notes, is exacerbated by inequality that begins in childhood which gets more pronounced as girls spend fewer years in

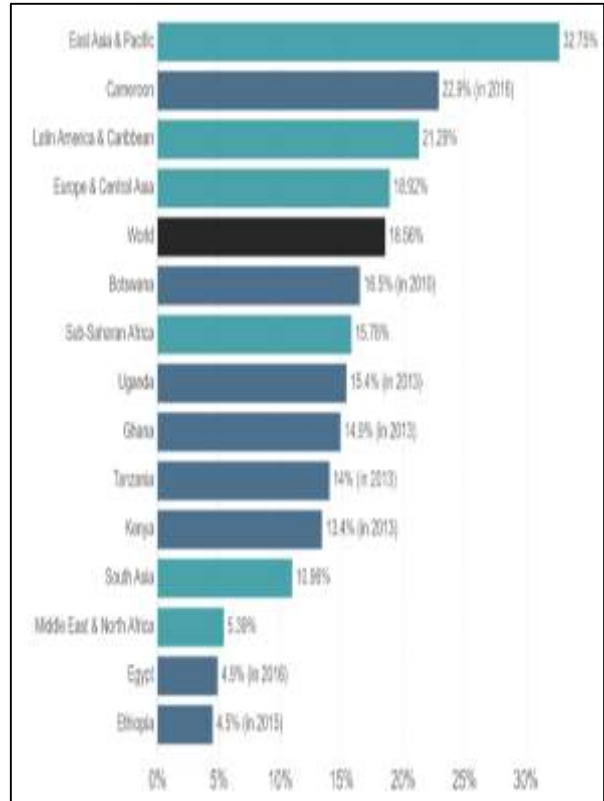
schooling than boys. Further, the situation is compounded by early marriages in girls. This trend effectively thwarts their educational and employment opportunities.

**Figure 1: Unadjusted Gender Wage Gap across Countries**



**Source:** Centre for Global Development (2018)

**Figure 2: Firms' with female managers at the top (% of firms)**

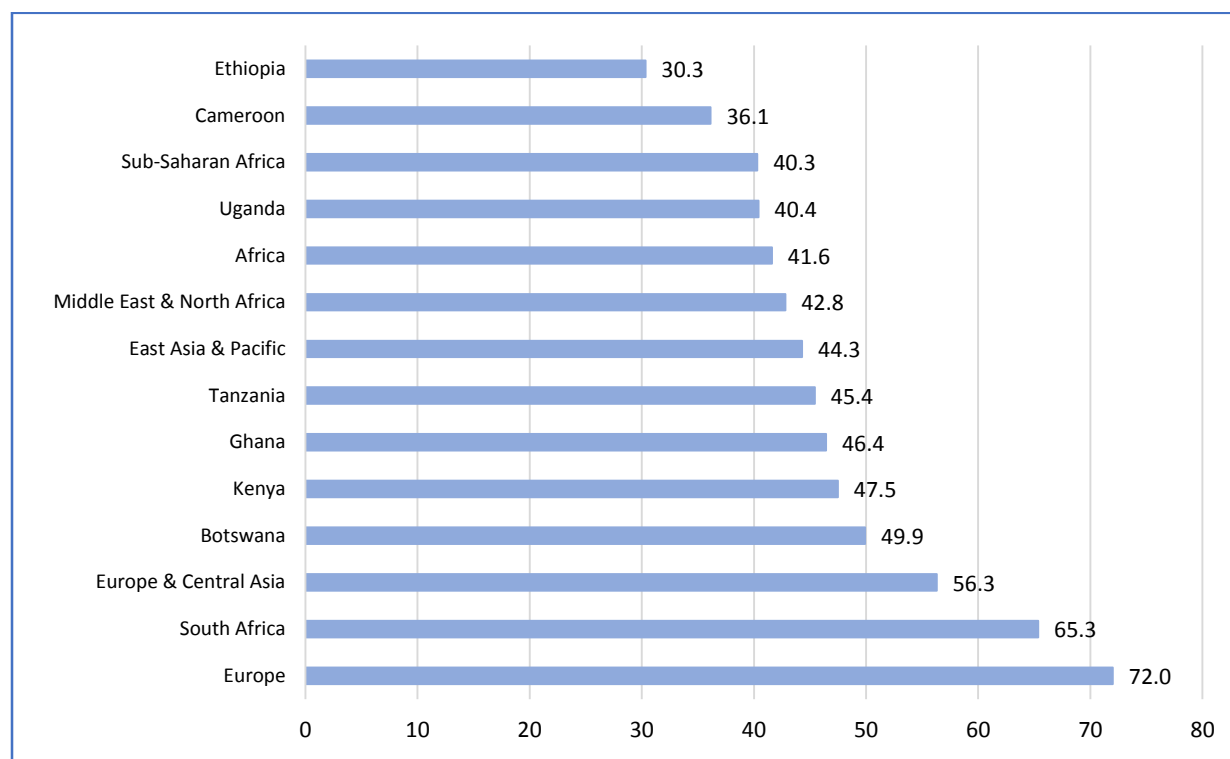


**Source:** World Development Indicators (2018)

The cross-country World Economic Opportunity (WEO) Index, an index based on five different indicators – years of education, labour policy, access to credit and training, women’s legal and social status, and business environment – also points to the persistent differences across countries. The WEO ranges between 0 and 100 and the higher the score the higher the economic opportunities. Figure 3 shows the distribution of the scores featuring some Sub-Saharan Africa countries which have lower scores comparatively. Nonetheless, not all regions are on the same footing. South Africa has the highest score at 65.3%, an indication that it is among the frontier countries where women have almost equal opportunities as men. In Kenya, women are twice less likely to get economic opportunities as men as the country’s economic opportunity index stands at

47.5%. This means that the country still has a long way to go with regards to ensuring that women are accorded equal opportunities as men.

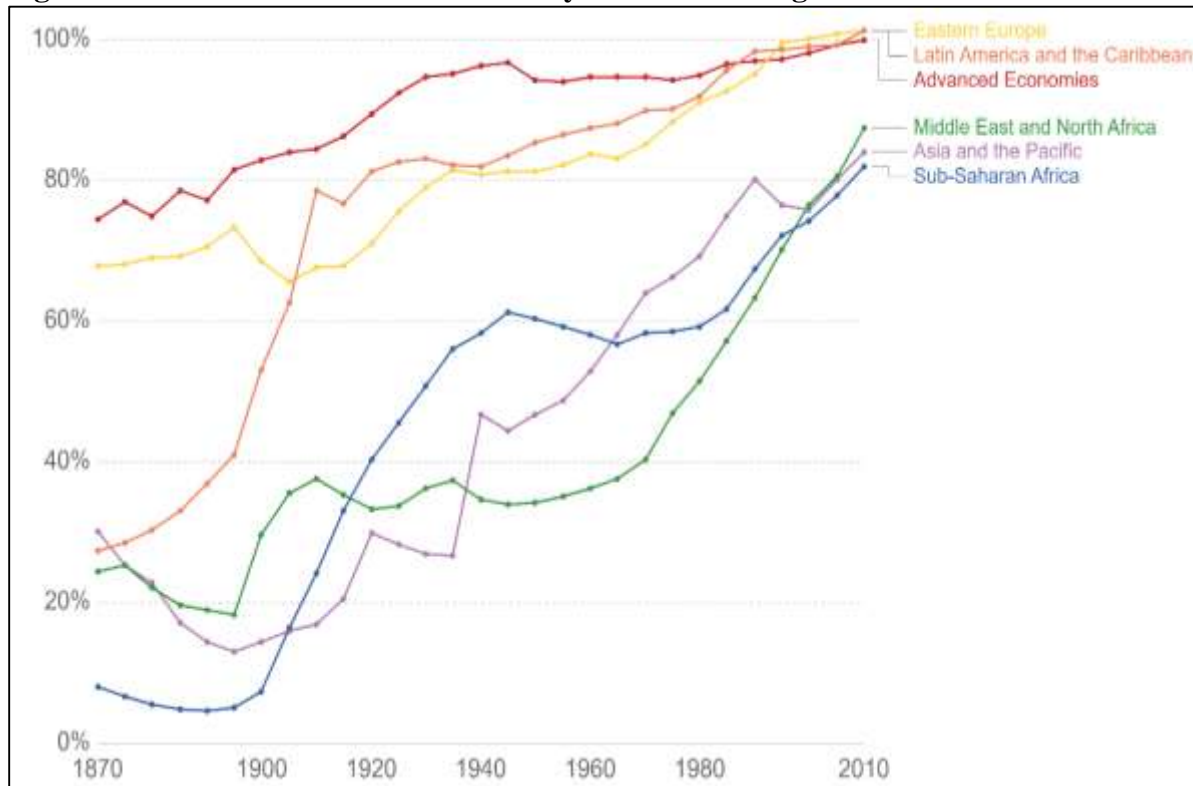
**Figure 3: Cross-Country Comparison of World Economic Opportunity Index**



**Source:** Economist Intelligence Unit (2012)

Even though the gender wage gaps persist globally, it has been touted that education is relatively unimportant in explaining this trend. This is crystallised by the increasing female-to-male ratio of average years of schooling (see Figure 4) which points to the reality that women are getting to the education levels as men. It has been pointed out, therefore, that the differences attributed to observable differences in wages across gender are largely explicated by the features of the jobs that men and women tend to do. More importantly, the remaining differences though a small portion remains due to variations in schooling, nonetheless, non-cognitive skills, occupation, experience and social norms play a crucial role.

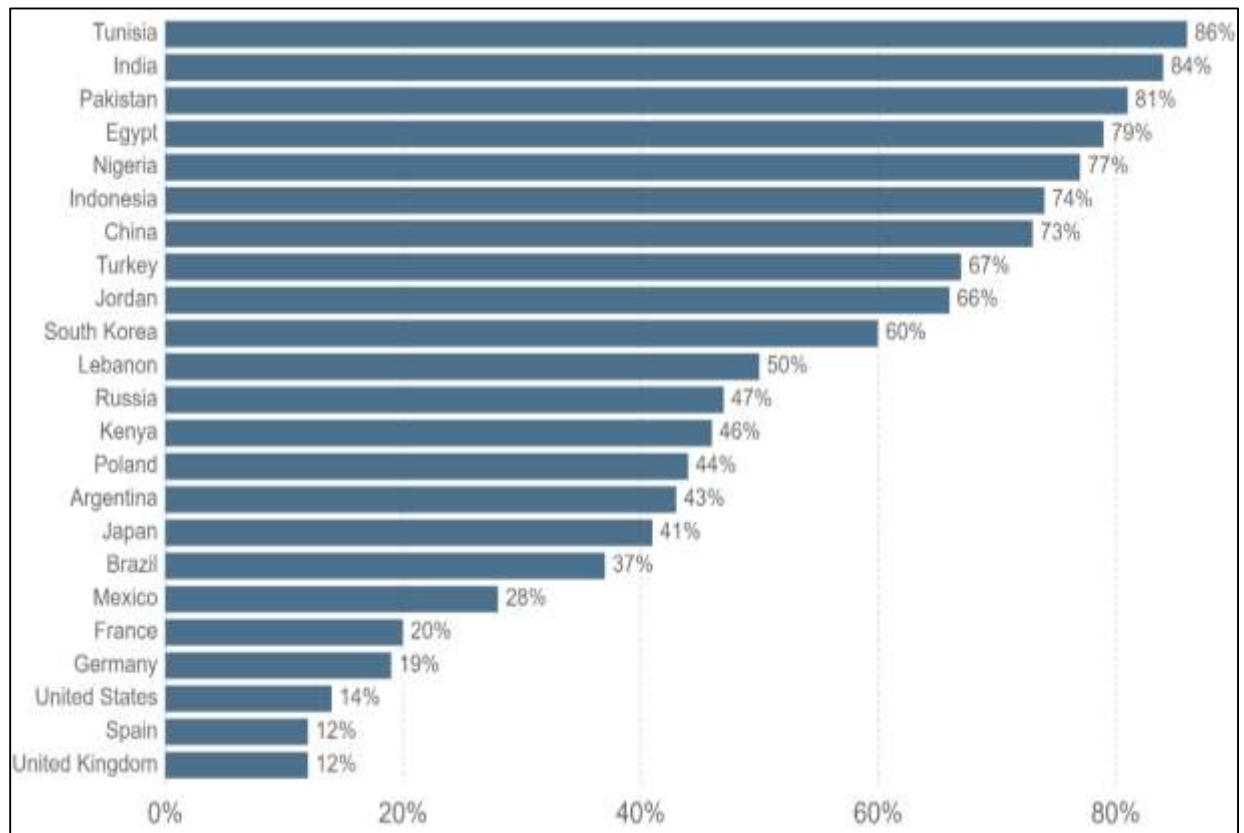
**Figure 4: Female-to-male ratios of mean years of schooling**



**Source:** Lee and Lee (2016)

Norms still play a vital role in explaining the presence of gender pay differentials as in Figure 5. For instance, in India, 84% believe that in instances where jobs are scarce men rather than women have the right to the available jobs and are even more pronounced in developing than in developed countries. In Kenya, for instance, 46% believe that in instances of limited job opportunities, men have the right to these jobs as opposed to women. This is a sharp contrast in the United Kingdom (12%) and Germany (19%).

**Figure 5: Job entitlement across gender**



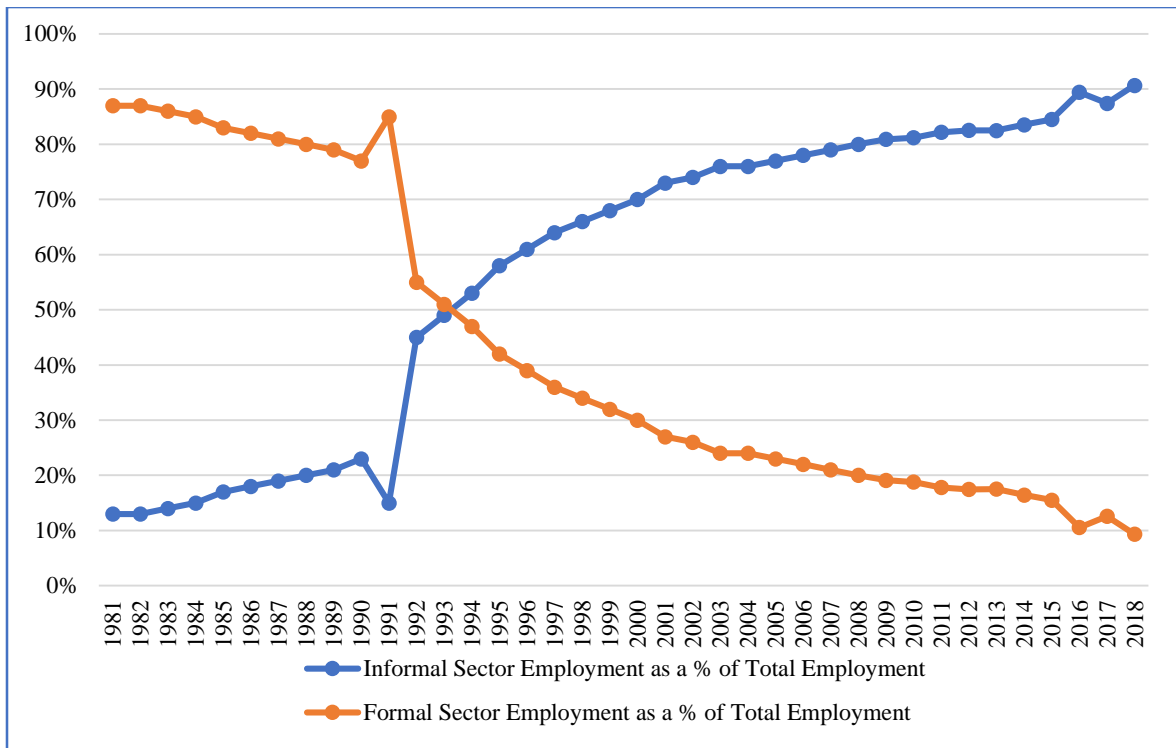
**Source:** Employment and Gender: Pew Research Centre (2012)

### **1.1.1 Formal and Informal Sector Employment in Kenya**

In pre-1994, the share of formal employment to total employment dominated Kenya's labour market. However, in post-1994, the informal sector became dominant and continued to get more entrenched. Two observations are key to make. First, the formal and informal sector coexist. Second, the informal sector employment contributes to employment more than the formal sector and has been on a rapid increase, while the share of formal sector employment has been on a decline.



**Figure 6: Formal and Informal Sector Employment in Kenya**



**Source:** Various Economic Surveys (Government of Kenya)

As shown in Table 1.1, the trends of wage employment, both in the formal and informal sectors, have been on a steady rise since 2014. For instance, wage employment in the formal sector rose by 5%, while that of the informal sector rose by a paltry 3%. Whereas the numbers paint a positive picture of the employment situation, it conceals the vital differences that exist in employment across gender. According to the Kenya National Bureau of Economic Survey (2019), there exists a marked gender difference in wage employment with the difference being more noticeable in certain sectors than in others.

More importantly, the manufacturing industry is the evident industry with the highest wage differential between males and females with the trend trajectory being maintained since 2018. This is a clear indication that certain sectors are playing a significant role in creating differences across gender. Nonetheless, the numbers are also still deficient in the sense that they do not speak to the

differences of the skill endowment of the employees and therefore they cannot be conclusively be said to be corroboration of discrimination against women participating in the labour force.

**Table 1.1. Employment Trends in Kenya ('000)**

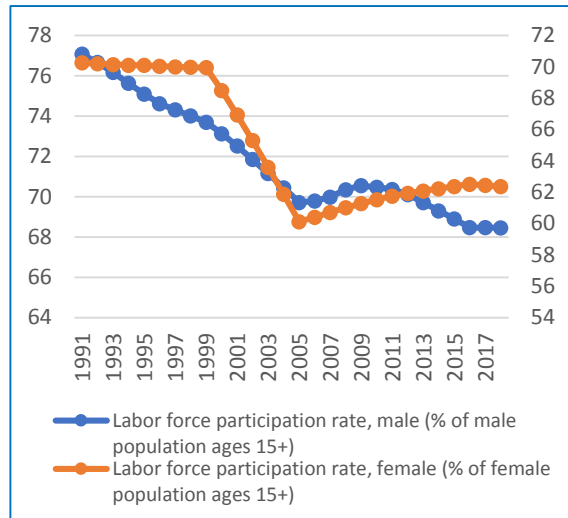
	2014	2015	2016	2017	2018*
Wage Employees	2401.80	2513.70	2592.00	2699.50	2765.10
Self-employed and unpaid family workers	103.00	123.20	132.50	139.40	152.20
<b>Sub -Total</b>	<b>2504.80</b>	<b>2636.90</b>	<b>2724.50</b>	<b>2838.90</b>	<b>2917.30</b>
Informal Sector	11851.00	12566.20	13308.30	14103.80	14865.90
<b>TOTAL</b>	<b>14355.80</b>	<b>15203.10</b>	<b>16032.80</b>	<b>16942.70</b>	<b>17783.20</b>

Source: Republic of Kenya (2019) – KNBS, Economic Survey.

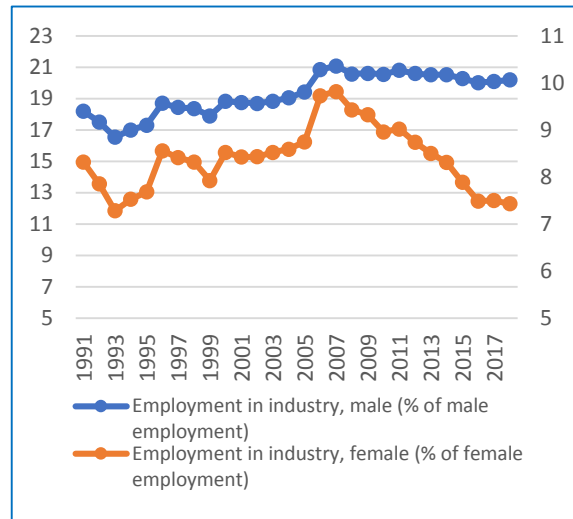
Notably, the numbers suggest that female’s participation in the workforce is low, more so in the industrial zone. Even in the non-industrial sectors such as administrative and support services, men dominated women. On the other hand, women dominated in the household, human health, and social work activities. Interestingly, the education sector showed some equal distribution in employment between men and women, though this pattern is more evident recently in 2010 to 2015 differences still existed. The trends in employment across the sector also reveal some interesting insights.

The share of women’s labour force has stabilised since 2011 (see Figure 7) while that of men has been declining albeit at a slower rate. Nonetheless, the share of women employed in the industrial sector has declined over the same period, while that of men has marginally risen as indicated in Figure 8. Conversely, the portion of women’s employment in agriculture is greater than that of men as shown in Figure 9. These trends, and based on anecdotal evidence, are an indication that inter-industry wage differentials may exist. Motivated by these observations, a renewed interest to address the gender wage gaps is gaining momentum as the country seeks to make progress towards achieving Sustainable Development Goals and more importantly target 8.5.

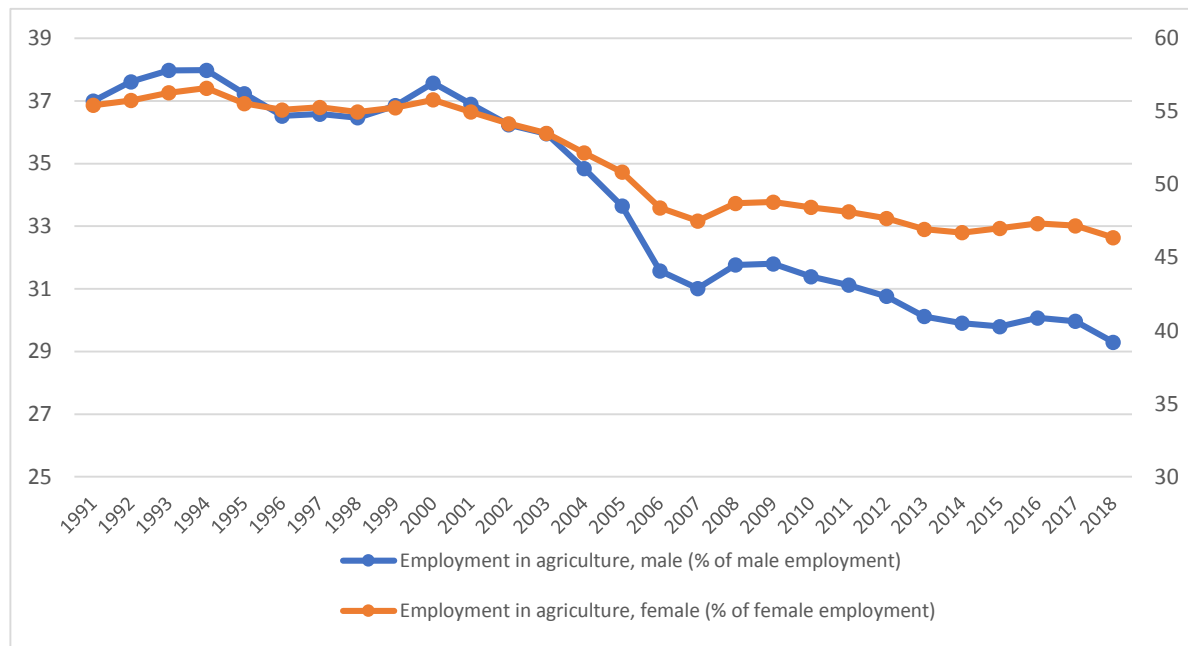
**Figure 7: Labour Force Participation by Gender (1991-2018)**



**Figure 8: Employment in Industry by Gender (1991-2018)**



**Figure 9. Employment in Agriculture by Gender (1991-2018)**



**Source:** *World Development Indicators (2018) & Authors Compilations*  
 Data retrieved from <https://databank.worldbank.org/data/source/gender-statistics>

## **1.2 Statement of the Problem**

According to the World Economic Forum (2018), at the global level, working women are paid 63% of what men earn for the same job, and earn 50 % less than men annually. Additionally, women unlike men are much more likely to perform unpaid work like household activities. Not only does gender wage disparities in labour market outcomes prevalent in Africa, significant gender wage differences also exist in Kenya (Kabubo-Mariara, 2003; AfDB, 2005). Women, unlike men, are less likely to participate in the labour force, and while in it, they earn less than men with the patterns more pronounced in some sectors. While consensus exists of the presence of systematic gender earnings differentials in Kenya, the existence and extent of the gender earnings gaps across sectors are less obvious. Despite improvements in recent years, differences in employment between men and women persists (KNBS, 2017).

Notwithstanding, female's increased participation in the labour force, inter-sectoral heterogeneity persists. Women's participation compared to men in the industry is lower and diverging. Besides, whereas their participation in agriculture remains high it's been on a decline.

On the empirical front, two notable studies in Kenya reveal the existence of the gender wage disparities (Agesa, 1999; Kabubo-Mariara, 2003). These studies, however, use the Oaxaca-Blinder decomposition framework to examine the gender pay gap with industry variables treated as control variables in the earnings equation. However, earlier studies on wage differentials have failed to capture inter-industry wage differentials, and therefore, this study diverged from the use of the Oaxaca-Blinder decomposition framework, and instead, applied a measure of the gender wage gaps by industry proposed by Fields and Wolff (1995) and Horrace and Oaxaca (2001) as it considers the inter-industry gender pay variations.

### **1.3 Objectives of the Study**

In this study, it is hypothesised that gender differences in wages are amplified more in some sectors than in others, and thus, it sought to examine how industry effects contribute to the male-female pay differentials in Kenya. More specifically the study sought to:

- (i) To establish the existence and magnitude of the gender pay differentials at the industry level; and
- (ii) To decompose the gender wage differentials to establish the contribution of the different factors in explaining the gender wage differentials.

### **1.4 Significance of the Study**

The vital role of gender equality is underscored by the inclusion of UN SDGs Goal 5 – the global development blueprint which is a necessary foundation for an equal society. Thus, a study touching on SDGs Goal 5 is vital since the policy implications arrived at will help the world achieve progress towards gender equality by reducing gender wage differentials. This study adds to the existing literature on the inter-industry wage heterogeneity in Kenya. The study findings will be useful to institutions seeking policy instruments enough to reduce gender pay inequalities in Kenya. Moreover, this contributes to the achievement of Sustainable Development Goal 8.5, which requires identical earnings for a job of equal measure within the framework for United nations 2030.

## **1.5 Organization of the Project**

This project is organised as follows. Chapter Two presents related theoretical and empirical literature of the wage disparities across sectors in Kenya. In Chapter Three, the methodology and method of the estimation procedure are explicated. Chapter Four provides a presentation and discussion of results. And finally, Chapter Five presents a summary of the key findings, conclusion, and policy implications of the study.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Theories of Wage Formation**

Several theories of wage formation have been put forward from time to time to explain what determines wages. The theoretical literature in this chapter is reviewed by categorising them into those that explain the determination of wage level; and those that explain the determination of wage disparities.

#### **2.1.2 Efficiency Wage Theories**

Efficiency wage hypothesis holds that labour efficiency depends on the wage paid to workers. These models suggest that the efficiency of workers is positively related to the real wage they are paid and that wage cuts will automatically lead to the increased labour costs. Under the shirking model advanced by Shapiro & Stiglitz (1984), companies pay wages above the equilibrium level to enable workers not to cheat or shirk but commit work. The turnover model (Stieglitz, 1974) suggests that companies pay higher wages to minimise labour turnover. Adverse selection model (Weiss, 1980) put forward that a higher pay offer attracts a group of employees of better quality. The sociological model (Akerlof, 1984) asserts that higher pay motivates workers hence increased labour productivity. The nutritional model by Leibenstein (1957) reveals that firms pay more wages to have well-nourished and healthier employees. This results in increased output. Conditions necessitating efficiency wage payments differ across enterprises. This suggests that employees with equal effective traits are rewarded differently based on enterprise connection.

### **2.1.2 Compensating Wage Differentials**

Adam Smith in 1776 first proposed the idea of compensating wage differentials. Smith pointed out that compensating wage differentials exist to reward employees for non-wage considerations of the job. This theory suggests that pay disparity exists among employees due to different characteristics of jobs within and among firms. In practice, it is more than just a wage that can determine whether a worker takes the job. Workers also consider non-monetary considerations. Compensation comprises of wages or salary and other fringe benefits. Fringe benefits may include retirement pensions, health insurance, paid vacations and holidays, and other similar benefits. If the non-monetary considerations are many, the supply of workers increases, driving down wages whereas if there are professions where the working conditions are unfavourable, undesirable, and unpleasant, there will be a lack of supply of workers in that industry and wages will be higher. This is referred to as a compensating wage differential. Employees working under tough conditions are likely to be rewarded higher wages since it is difficult for firms to attract workers.

### **2.1.3 Human Capital Theory**

Gender pay disparities exist not due to employer discrimination against women, but differences in worker productivity-differences in education and tenure. According to human capital theory is associated with his or her attributes such as level of education, sex, and race or employment history. Education increases workers' skills, and subsequently increases their productivity, hence increased earnings (Mincer, 1974). An upward-sloping shape of a typical age-earning profile is explained by the Job Training hypothesis. This approach can address the issue of how wages are determined and differentiated in terms of education and OJT investment levels (Becker, 1964).



#### **2.1.4 Institutions**

Institutions of labour unions advocate for employees in the labour market and are behind employer-employee relationships. They influence both monetary and non-monetary considerations in the labour market. Trade unions bargain for higher wages. Employees on their own find it difficult to demand higher wages (Freeman & Medoff, 1984). The bigger the membership in a labour union, the more the bargaining power of the union to ask for higher wages, thus distorting perfectly competitive labour market outcomes, pushing up wages. In industries where there are strong trade unions, wages increase leading to wage differentials compared to industries where trade unions do not exist. Firms might also find it gainful to pay workers belonging to a union more than aggressive pay to thwart industrial action. Additionally, unionisation threat increases pay in the non-union industries (Rosen, 1969).

#### **2.2 Empirical Literature**

A study by Kabubo-Mariara (2003) explored the causes of the gender earnings disparity across different industries in Kenya and found out that years of schooling is a necessary factor that determines the choice of occupation and earnings. Decomposition results of the gender pay gaps show the existence of a gender bias in favour of men across sectors. Another study by Agesa (1999) confirmed the presence of a sizable gender wage differentials and that much of the difference is due to discrimination of women by employers in urban areas rather than a woman's education or differences in employment abilities compared to male counterparts.

Milana (2018) investigated the determinants of male-female wage variations in the Hollywood industry. The results suggested that the simple features of being a female decreased the expected salary by 60 % before taking into consideration other factors. Outcomes showed a sizable male-

female pay differential in the film industry, with women making 55 cents for every dollar a man earns. In another study Confurius, Gowricharn & Dagevos (2018) established the inability of human capital theory to account for the observed differences among Sub-Saharan Africans and native Netherlands.

Industry affiliation also influences gender wage disparities. Moser (2018) explored the sources of the gender differences in pay and showed that industry affiliation explains 46% of the gender pay variation. In a study of Georgia, Khitarishvili, Rodriguez-Chamussy & Sinha (2018) examined the role of occupational segregation on wage dispersion. The results confirmed the presence of the intra-industrial gap and that higher inter-industry gender pay differentials existed in healthcare and training followed by trade and manufacturing. These findings are in agreement with earlier studies. For example, Ulyana (2012) conducted a study on inter-industry wage differential involving 50 countries from both low-income and high-income economies. The findings confirmed the existence of inter-industry wage variations which are consistent for identical industries across various countries of study.

Besides, Heinze and Wolf (2010) and Magda, Rycx, Tojerow and Valsamis (2008) found that the gender wage gap varied across establishments. Gunewardena, Ellagala, Rajakaruna and Rajendran (2009) found that wages for men and women with the same productive characteristics differed greatly among employees working in the public sector and the private sector. Similarly, Gannon, Plasman, Rycx and Tojerow (2007) establish the existence of gender wage disparities in different industries across six countries in Europe.

A study by Blundell, Dias, Goll and Meghir (2019) investigated the influence of education in lowering the male-female wage disparities in the United Kingdom. The results revealed that training could reduce or offset the male-female pay gap due to the dominance of part-time work and unemployment. In Europe, Machini and Puhani (2003) revealed that men with college education received, on average, a higher wage than female graduates and that college major has considerably explained wage differences among female and male workers. Similarly Dolado, Felgueroso and Jimeno (2003) analysed patterns of occupational segregation by gender, analysis based on three age cohorts between 15-24, 25-24, and 55-64 and two training levels: university education and below. Results showed that the young and more learned women participated in the labour market much more than the old and those with lower levels of education.

Kaya (2019) investigated gender wage differentials across earnings distribution by evaluating the role of corporate segregation. He noted that the existence of discriminatory employment patterns is greater at the top of the ladder than at lower levels. This pattern becomes worse later in women's careers, but only among workers in the same firm. In another study, Fitzenberger and Wunderlich (2002) revealed that gender pay differences have considerably reduced in the lower portion of the wage distribution for low and medium-skilled women than high-skilled women.

A study by Denning, Jacob, Lefgren and Lehn (2019) noted that male-female hours worked differences sizably contributes to gender earnings inequality and that women work fewer hours compared to men. Simon, Sanroma and Ramos (2017) also investigated gender pay variations among permanent and part-time employees. They concluded that employees working on a part-time basis experience a substantial pay gap in Spain largely due to earnings distribution. Human capital endowments often define the wage disparity.

### **2.3 Overview of the Literature**

The literature review shows that gender wage disparities are persistent and have received extensive empirical investigation in the literature. Overall, the results show the existence of pay premia in different jurisdictions and different periods casting suspicion on the existence of a perfectly competitive labour market. Thus, the literature informs that a worker's wage is, therefore, not exclusively determined by their endowment characteristics, but also other attributes which include differences in the sector of employment. Though this may be the case empirical evidence more so in the Kenyan context is lacking. Among other factors identified in the literature as contributing to the wage premia is gender, and the divergent endowment set of individuals.

Many times, endeavours to measure discrimination faces several challenges, more so the exclusion of unobservable variables such as ability and family background among others that explain wage differentials hence causing selectivity bias in the estimates. Additionally, rather than exploring the extent of inter-industry gender wage disparities, most studies focus on how the disparities in earnings amongst male and female workers in developing countries.

It is also difficult to generalise data collected in many countries, especially when the surveys are done over different periods. This study addresses the shortcomings using a novel globally comparable data collection technique for twelve low-income countries including Kenya. This dataset, therefore, allows for the determination of the extent and magnitude of gender wage differences and to decompose the gender wage differentials in view of explaining the contribution of various factors in explaining gender pay disparities in Kenya. Several studies that focused on high-income countries, like the USA and some countries in Europe indicate the presence of inter-industry gender pay variations for identical enterprises, for workers in similar occupation controlling for labour and enterprise characteristics.

In contrast, studies focusing on developing countries like India and Sub-Saharan Africa point out that women are more likely to be working in the informal sector and often part-time work with less pay. This study focused on Kenya using 2013 World Bank Skills Toward Employment and Productivity Household-level Data. It investigated the existence and magnitude of gender pay differentials using the approach of Fields and Wolff (1995) and Horrace and Oaxaca (2001) to capture the inter-industry gender wage differentials among male and female workers.

## CHAPTER THREE: METHODOLOGY

### 3.1 Theoretical Framework

This study adopts the standard Mincerian (log-earnings) theoretical framework to investigate inter-industry gender earnings disparities. According to this theory, the divergence in the earning profiles of individuals are due to the differences in their human capital especially years of schooling, innate attributes and wealth of experience in the labour market.

The Mincerian wage equation is as presented in Equation (4.0):

$$\ln Y_i = \alpha + \sum_{j=2}^J \beta_j d_j + \sum_{k=2}^K \pi_k q_k + X_i \theta + \varepsilon_i \quad (4.0)$$

$\ln(Y_i)$  is defined in natural logs (i.e. it is expressed as log of wages) for individual  $i$ . On the other hand,  $X_i$  Represents a set of covariates included in the model as control variables and includes such variables as occupation, training, gender, marital status among others which also affect wages.

### 3.2 Empirical Specification

#### 3.2.1 Inter-industry Wage Differentials by Gender

In this study, we use the technique suggested by Fields and Wolff's (1995) and extended by Horrace and Oaxaca (2001) to examine the inter-industry gender wage differentials. This wage differential by gender represented as  $d_j$  in equation (4.1) follows the approach of Krueger and Summers (1998) and is as shown below:

$$d_j = \hat{\beta}_j - \sum_k \hat{\beta}_j \cdot s_k \quad (4.1)$$

In the above equation,  $\beta_j$  Represents is the constant term in industry  $j$ . On the other hand,  $s_k$  represents the numbers of workers employed in industry  $K$  as a proportion of total employment.

Therefore, the term  $\sum_k \hat{\beta}_j \cdot s_k \equiv \hat{d}$  economically is interpreted as the employment-weighted industry wage differential. The standard Mincerian (log-earnings) function by gender are estimated independently with the following functional form:

$$y_i^f = \alpha^f + x_i^f \theta^f + \sum_{j=2}^J \beta_j^f d_{ij}^f + \sum_{k=2}^K \pi_k^f q_{ik}^f + \varepsilon_i^f \quad (4.2)$$

$$y_i^m = \alpha^m + x_i^m \theta^m + \sum_{j=2}^J \beta_j^m d_{ij}^m + \sum_{k=2}^K \pi_k^m q_{ik}^m + \varepsilon_i^m \quad (4.3)$$

In both equation (4.2) and (4.3) the outcome variables  $y_i^f$  and  $y_i^m$  stands for the wages of females and males respectively expressed in natural logarithm and is computed monthly. The subscripts j and k capture the industries in which the individual works while  $x_i$  is a vector of continuous covariates and  $d_{ij}$  is a dummy variable for the sector an individual is employed. Other sets of dummy variables are also including in  $q_{ij}$  Such as education level attained, marital status among others.

### 3.2.3 Inter-Industry Gender Wage Differential Decomposition

To examine the inter-industry gender wage differentials, this study adopts an extended version of the Blinder and Oaxaca decomposition approach as presented by Fields and Wolff (1995) and further extended by Wolff and Oaxaca (2001). In this approach, the average wages for females and males are computed at the industry level and this is implemented using equation (4.4) and (4.5) as shown below with the notations being as earlier discussed in Section 3.2.1.

$$\hat{y}_j^f = \hat{\alpha}^f + \bar{x}_j^f \hat{\theta}^f + \hat{\beta}_j^f + \sum_{k=2}^K \hat{\pi}_k^f \bar{q}_{jk}^f \quad (4.4)$$

$$\hat{y}_j^m = \hat{\alpha}^m + \bar{x}_j^m \hat{\theta}^m + \hat{\beta}_j^m + \sum_{k=2}^K \hat{\pi}_k^m \bar{q}_{jk}^m \quad (4.5)$$

Where  $\bar{x}_j^f$  and  $\hat{q}_{jk}^f$  ( $\bar{x}_j^m$  and  $\hat{q}_{jk}^m$ ) are the average industry characteristics of the workers female (male) in a given industry say in  $j$ th industry. The gender differences in different industries is therefore, computed say for the  $j$ th can be decomposed into two; one that is due to observables and the second, the part of the difference due to unobservables.

The determination of the two components will therefore follow the following specifications.

$$\hat{y}_j^f - \hat{y}_j^m = (\hat{\alpha}^f - \hat{\alpha}^m) + (\hat{\beta}_j^f - \hat{\beta}_j^m) + \bar{x}_j^f (\hat{\theta}^f - \hat{\theta}^m) + \sum_{k=2}^K (\hat{\pi}_k^f - \hat{\pi}_k^m) \bar{q}_{jk}^f + \sum_{k=2}^K \hat{\pi}_k^m (\bar{q}_{jk}^f - \bar{q}_{jk}^m) + (\bar{x}_j^f - \bar{x}_j^m) \hat{\theta}^m \quad (4.6)$$

From equation (4.6), the first four terms on the RHS of the equation captures the characteristics effects while the last two terms capture the coefficient effects, the part that can be explained by the observable individual characteristics in industry  $j$ .

To estimate the extent of the inter-industry earnings disparities between males and females, the following specification will be adopted:

$$\hat{g}_j = (\hat{\alpha}^f - \hat{\alpha}^m) + (\hat{\beta}_j^f - \hat{\beta}_j^m) \quad (4.7)$$

However, since  $\hat{g}_j$  is invariant to the reference category left out. Horrace and Oaxaca (2001) proposes the following functional specifications for the estimation of the industry gender gap:

$$\hat{\theta}_j = (\hat{\alpha}^f - \hat{\alpha}^m) + (\hat{\beta}_j^f - \hat{\beta}_j^m) + \bar{x}_j^f (\hat{\theta}^f - \hat{\theta}^m) + \sum_{k=2}^K (\hat{\pi}_k^f - \hat{\pi}_k^m) \bar{q}_{jk}^f \quad (4.8)$$

$$\hat{\delta}_j = (\hat{\alpha}^f - \hat{\alpha}^m) + (\hat{\beta}_j^f - \hat{\beta}_j^m) + \bar{x}_j^f (\hat{\theta}^f - \hat{\theta}^m) + \sum_{k=2}^K (\hat{\pi}_k^f - \hat{\pi}_k^m) \bar{q}_{jk}^f \quad (4.9)$$

$$\hat{y}_j = \max_{n=1, \dots, J} \hat{g}_n - \hat{g}_j = \max_{n=1, \dots, J} \hat{\delta}_n - \hat{\delta}_j \quad (4.10)$$



$$\hat{\rho}_j = \max_{n = 1 \dots, J} \hat{\phi}_n - \hat{\phi}_j \quad (4.11)$$

The outcome measures can be categorised into two. First, there is a measure for  $(\hat{g}, \hat{\delta}, \hat{\gamma})$ , and second, a measure for  $(\hat{\phi}, \hat{\rho})$ . On inspection, the two measures have a similar rank even though their ranks are not similar, and this indicates that the higher the rank, the smaller will the gender gap be and vice versa.

### 3.3 Data Source

The dataset in this study is the Skills Toward Employment and Productivity (STEP) survey conducted in 2013 by the World Bank. The STEP survey gathers data on the supply, demand and distribution of skills in several developing countries including Kenya. In this study, the STEP household-level survey was used in collecting information from 3894 households. It used a three-stage stratified sampling design on cognitive skills, socio-emotional skills, job-specific skills, wages, and industry employed of adults aged 15 to 64 living in urban areas, whether they are employed or not. Besides, the survey includes information about the family, health and language, and hence, providing additional information that serves as controls.

**Table 3.1 Definition and measurement of variables**

<b>Variables</b>	<b>Measurement of Variables</b>
Sex	Takes a value 1 if male and 0 otherwise
Age	Age (in years)
Age squared	Squared term of age (in years)
Education	Years of Education
Marital status	Marital Status (1= Single, 0 otherwise)
Employment	In the past 7 days, did the responded work for at least an hour for wage or salary in cash or in-kind (1= yes, 0 otherwise)
Tenure	Years in employment
Hours worked in a week	Amount of time in employment in a week
Wage	Net payment last pay period in Kshs.
Industry employed	Industry of employment (1= Agriculture, fishery, mining, 2 = Manufacturing & construction, 3 = Trade, 4 = Services)

Source: Author

### **3.5 Econometric Issues**

#### **3.5.1 Heteroscedasticity**

Heteroscedasticity arises more commonly with cross-sectional data. It happens when there is an unequal variance of the error terms for all observations. The consequences of heteroskedasticity is that coefficient estimates are neither unbiased nor have minimum variance. Breush-Pagan test will be utilised to check for its presence. If the  $p$ -value is less than the threshold, reject the null hypothesis of homoscedasticity meaning heteroskedasticity is present. If it exists, robust standard errors are used (Gujarati, 2003).

#### **3.5.2 Multicollinearity**

Multicollinearity is a typical problem in cross-sectional data. It refers to the extent to which predictor variables are correlated. Multicollinearity occurs when there is a high correlation among the predictor variables within a regression model. The presence of multicollinearity brings out

unreliable regression coefficients estimates and tests of significance for the regression coefficients can be spurious. The variance inflation factor and correlation coefficients are used to test the presence of multicollinearity. If present, the sample size is increased or one among the correlated variables is dropped or retained if not highly correlated (Gujarati, 2003).

### **3.5.3 Normality Test**

In testing for normality, this study adopted the Shapiro & Wilk (1965), under the null hypothesis that the model's residuals are normally distributed against the alternative hypothesis of the residuals not being normally distributed.

## CHAPTER FOUR: PRESENTATION AND DISCUSSION OF RESULTS

### 4.1 Descriptive Statistics

From Table 4.1, it is observed that, on average, the individuals in the sample were 32 years old with the minimum observed being 15 years while the maximum is 64 years old working for approximately 49 hours in a week. The minimum time spent on work is one hour while the maximum time being 126 hours in a week. On average the wage earners earned Kshs. 146.1 per hour with the highest-paid receiving Kshs. 10,000. The average earnings were Kshs. 21, 475 with the highest-paid earning Kshs. 1,290,323 while the least paid earned Kshs. 240 per month. This clearly illustrates a case of the existence of differentials in the pay of the employees.

In terms of years of experience, the average years of tenure in employment is four years and the minimum are less than one year and the highest being 44 years implying that wage earners also exhibit huge differences in their level of experience. Almost 56 % were men, 2 % employed in agriculture, fishery, and mining; while 15 % were employed in the manufacturing and construction sectors. The trade sector employed 29 % of them and 54 % of them were employed in the services sector. This is not surprising given that the sample was mainly urban-based. On average, they had 10 years of schooling (i.e. high school education and vocational training) with the highest years in schooling being 22 years (i.e. tertiary and university education).

**Table 4.1: Summary Statistics**

Variable	N	Mean	Std. Dev.	Min	Max
Age (in years)	2,422	31.75	9.650	15.00	64.00
Hours Worked (in the last 7 days)	2,415	49.15	21.67	1.00	126.00
Hourly earnings (Kshs.)	2,235	146.1	400.5	0.884	10,000
Monthly wage (Kshs.)	2,235	21475	44803	240.00	1,290,323
Industry (=1 if Agriculture, fishery, mining, 0 otherwise)	2,420	0.0236	0.152	0.00	1.00
Industry (=1 if Manufacturing & construction, 0 otherwise)	2,420	0.151	0.358	0.00	1.00
Industry (=1 if Trade, 0 otherwise)	2,420	0.289	0.454	0.00	1.00
Industry (=1 if Services, 0 otherwise)	2,420	0.536	0.499	0.00	1.00
Experience (years)	2,419	4.533	5.053	0.00	44.00
Sex (=1 if male, 0 if female)	2,422	0.563	0.496	0.00	1.00
Age in years started schooling	2,318	6.731	1.059	3.00	18.00
Education (years)	2,412	10.505	4.479	0.00	22.00

## 4.2 Correlation Matrix

Table 4.2 shows the extent of correlation amongst variables adopted in the study. It is evident that the variables are not highly correlated as the coefficients among them are less than 0.7 except for tenure and tenure squared whose correlation is 0.97. This is expected because experience squared is derived from experience. Nevertheless, the problem of multicollinearity is a non-issue in the empirical determination of the inter-industry wage differentials using the Skills Toward Employment and Productivity (STEP) survey conducted in 2013 by the World bank.

**Table 4.2: Correlation Matrix**

	Monthly Wages (Ln)	Education in years (Ln)	Tenure (Ln)	Tenure Squared (Ln)	Marital Status 1	Marital Status 2	Age (Ln)	Agri	Manuf.	Com m./Trade
Monthly Wages (Ln)	1.00									
Education in years (Ln)	0.30	1.00								
Tenure (Ln)	0.13	-0.09	1.00							
Tenure Squared (Ln)	0.12	-0.09	0.97	1.00						
Marital Status 1	0.06	-0.02	0.20	0.20	1.00					
Marital Status 2	-0.10	-0.16	0.08	0.10	-0.30	1.00				
Age (Ln)	0.09	-0.15	0.42	0.45	0.39	0.28	1.00			
Agriculture	0.02	-0.13	0.02	0.03	0.01	-0.01	0.03	1.00		
Manufacturing	0.00	0.00	0.04	0.04	0.03	-0.01	0.02	-0.07	1.00	
Commerce/Trade	-0.09	-0.07	-0.04	-0.05	0.03	0.02	0.01	-0.10	-0.27	1.00

### 4.3 Test of Differences in Wage Distributions across Industries

Table 4.3 presents the test of differences in the inter-industry wage distributions by gender without controlling for individual characteristics as they are discussed further in section 4.4. The test of differences in wages across the sectors is quite revealing that men earn higher wages than women across all sectors. As to whether the differences in wages between males and females are statistically different, univariate test of differences in means was adopted and it is evident that the observed wage differences by gender is statistically significant in the case of services sector ( $t = 5.35$ ), trade sector ( $t = 3.80$ ), manufacturing and construction sector ( $t = 2.55$ ), albeit not in the agriculture, fisheries, and mining sectors ( $t = 1.10$ ). This can be attributed to the small sample observed within the sector. Nonetheless, the failure to observe gender gaps in the agriculture, fisheries, and mining sectors could potentially be due to the fact that it is a sector characterised by low-pay and that earnings across generally tend to be manual in nature and thus the earnings reflects the sector's underdeveloped nature. Looking at the other sectors, we establish the existence of insurmountable inter-industry gender wage differentials.

**Table 4.3: Gender Wage Gap across the Wage Distribution by Industry of Employment**

	Males	Female	Difference (1-2)	Standard Error	$t - stat$	$p - value$
Agriculture, fishery, mining	9.679	9.223	0.457	0.424	1.10	0.291
Manufacturing & construction	9.442	9.18	0.263	0.102	2.55	0.011
Trade	9.395	9.088	0.306	0.081	3.80	0.000
Services	9.602	9.276	0.326	0.061	5.35	0.000

Source: Author (2019). Based on Skills Toward Employment and Productivity (STEP) survey conducted in 2013 by the World Bank.

#### 4.4 Gender Analysis of Wage Differentials

To examine the (in) existence of gender wage differentials across sectors, Mincerian wage equation was augmented with three dummy variables, we estimate an OLS regression with the outcome variable being the natural logarithm of the monthly earnings. The results in Table 4.4 are presented for the male sample, female sample and the combined sample. The base industry was selected as the service sector for comparison as it is the industry with the highest observations while also considering the different occupations within the identified sectors.

When using the whole sample only, it was observed that working in the agriculture, manufacturing, and construction sectors, on average, employees received higher income than those in the services sector albeit insignificant in the agriculture sector. Looking at the male sample the same pattern is observed though the differences in wages between in agriculture, fishery, mining, and service sectors are statistically significant at 10%. In the female sample, earnings across the agriculture, fishery, mining, manufacturing and construction and commerce/trade sector are higher than in the service sectors albeit not statistically significant. This is in line with existing literature such as Heinze and Wolf (2010) and Magda, Rycx, Tojerow and Valsamis (2008) who also found that the gender wage gap varied across establishments. And more importantly the findings by Gunewardena, Ellagala, Rajakaruna and Rajendran (2009) that remunerations for males and females with the same productive characteristics differed greatly across sectors.

On the other hand, human capital characteristics influence wage distributions. The education premium is established to be positive which supports the observation that higher levels of education are associated with higher compensation. It was observed that the education premium is higher among men ( $\beta = 0.455$ ) than in women ( $\beta = 0.424$ ). This is line with the theoretical expectation that education increases workers skills and subsequently increases their productivity,

hence increased earnings (Mincer, 1974) and also the empirical observations in a number of studies by Machini and Puhani (2003) in Europe and Kabubo-Mariara (2003) in Kenya among others that there exist gender earning disparities across the sectors where they find that men with college education received on average a higher wage than female graduates and that college major has considerably explained wage differences among female and male workers.

Also, the coefficient estimates for the level of experience as measured by the years in current employment reveals that women who tend to stay longer with their employers are paid higher ( $\beta = 0.211$ ) compared to men ( $\beta = 0.132$ ) which is statistically insignificant. The findings also show that marital status is negatively associated with wages contrary to the empirical literature that finds that being married is associated with higher wages.

**Table 4.4: Gendered Analysis of Wage Differentials**

	<b>1</b> <b>Male</b> <b>Sample</b>	<b>(2)</b> <b>Female</b> <b>Sample</b>	<b>(3)</b> <b>Overall</b> <b>Sample</b>	<b>(4)</b> <b>Inter-Industry</b> <b>Analysis</b>
Education (Natural logarithm of years of schooling)	0.455*** (9.70)	0.424*** (11.68)	0.432*** (15.03)	0.436*** (15.15)
Tenure (years in current employment)	0.132 (1.30)	0.211** (2.50)	0.183*** (2.85)	0.192*** (2.98)
Tenure squared	-0.00402 (-0.24)	-0.0182 (-1.33)	-0.0125 (-1.21)	-0.0135 (-1.30)
Marital Status (=1 if married, 0 otherwise)	-0.0690 (-0.87)	-0.0963 (-1.51)	-0.104** (-2.08)	-0.108** (-2.16)
Marital Status (=1 if divorced/widowed/separated, 0 otherwise)	-0.355*** (-3.08)	-0.0576 (-0.38)	-0.265*** (-3.05)	-0.320*** (-3.71)
Age (Years)	0.632*** (4.00)	0.271** (2.26)	0.405*** (4.35)	0.435*** (4.66)
Industry (=1 if Agriculture, fishery, mining, 0 otherwise)	0.104 (0.32)	0.196 (0.78)	0.149 (0.86)	0.270 (1.29)
Industry (=1 if Manufacturing & construction, 0 otherwise)	-0.0932 (-0.78)	-0.122** (-2.12)	-0.115** (-1.97)	-0.0138 (-0.22)
Industry (=1 if Commerce/Trade, 0 otherwise)	-0.144** (-1.97)	-0.121* (-1.86)	-0.127*** (-2.68)	
Gender (=1 if female, 0 otherwise)			-0.246*** (-5.78)	
Industry (=1 if Agriculture, fishery, mining, 0 otherwise)				-0.293



	<b>1</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
	<b>Male</b>	<b>Female</b>	<b>Overall</b>	<b>Inter-Industry</b>
	<b>Sample</b>	<b>Sample</b>	<b>Sample</b>	<b>Analysis</b>
otherwise)#Gender (=1 if female, 0 otherwise)				(-0.80)
Industry (=1 if Manufacturing & construction, 0 otherwise) #Gender (=1 if female, 0 otherwise)				-0.215*
Industry (=1 if Commerce/Trade, 0 otherwise) #Gender (=1 if female, 0 otherwise)				(-1.80)
Constant	5.776*** (10.55)	7.227*** (16.81)	6.785*** (20.58)	-0.265*** (-4.51) 6.550*** (19.98)
<i>N</i>	952	1270	2222	2222
<i>Breusch-Pagan test</i> $\chi^2$ ( <i>p</i> – value)	2.30 (0.13)	17.35 (0.00)	1.49 (0.223)	3.70 (0.055)
<i>Shapiro-Wilk test of Normality</i>	4.760 (0.000)	4.492 (0.000)	4.823 (0.000)	4.688 (0.000)

*t* statistics in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

#### 4.5 Inter-Industry Gender Wage Differentials

Table 4.5 shows the inter-industry gender earnings disparities results. Even after accounting for individual characteristics, the findings reveal the existence of pay differences between male and female workers across the industries except in the agriculture, fishery, and mining sector though women still earn less than men. As shown in Table 5, it was observed that female's wages in the services sector are 0.218 % (=1-exp (-0.246)) smaller than for men with higher education being associated with a higher premium ( $\beta = 0.576$ ). Also, more years of experience and a worker's age is associated with higher earnings. The finds also reveal that in the manufacturing and construction sectors female's wages are 0.21 % lower than that of males with the difference being statistically significant. Unlike in the services sector, the education premium is considerably lower. This implies that the acquisition of more education is not compensated highly as is the case with the service sector. Further, the results reveal that in the commerce/trade sector women earn lower wages than men to a tune of 0.21 %. It is also in this sector where the education premium is the least compared to other sectors.

**Table 4.5: Inter-Industry Gender Wage Differentials**

	(1) Agriculture, fishery, Mining Sector	(2) Manufacturing & construction Sector	(3) Commerce/Trade Sector	(4) Services Sector
Constant	6.832*** (2.91)	6.836*** (8.81)	8.580*** (13.28)	5.800*** (12.65)
Gender (=1 if female, 0 otherwise)	-0.0919 (-0.24)	-0.238** (-2.06)	-0.212*** (-2.65)	-0.246*** (-4.26)
Education (Natural logarithm of years of schooling)	0.392** (2.23)	0.332*** (4.78)	0.256*** (4.84)	0.576*** (13.80)
Tenure (years in current employment)	-0.455 (-0.80)	0.148 (0.98)	0.115 (0.81)	0.238*** (2.74)
Tenure squared	0.116 (1.26)	-0.0188 (-0.76)	0.00123 (0.05)	-0.0210 (-1.46)
Marital Status (=1 if married, 0 otherwise)	0.167 (0.25)	-0.0587 (-0.57)	-0.101 (-1.05)	-0.145** (-2.18)
Marital Status (=1 if divorced/widowed/separated, 0 otherwise)	-0.978 (-1.08)	-0.110 (-0.65)	-0.578*** (-3.44)	-0.0986 (-0.77)
Age (Years)	0.501 (0.68)	0.472** (2.32)	-0.0252 (-0.13)	0.574*** (4.34)
N	31	347	618	1226

*t* statistics in parentheses, \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

#### 4.5 Decomposition of Inter-Industry Gender Wage Differentials

In order to explain the factors that explain the inter-industry gender wage differences, the researcher decomposed the male-female earnings gap by applying the Oaxaca (1973) and Blinder (1973) approach. Table 4.6 shows gender wage decomposition across the different sectors. The first column shows the mean prediction by group and their difference while column two shows geometric means of wage of both groups and their difference. It was found that the gender pay disparity is greatest in agriculture, fishery, and mining sector at 36.7%, followed by services sector at 28.5%, while commerce/trade and manufacturing and construction sectors have 27.2% and 23.1% respectively.

A smaller portion of this inter-industry male-female wage variation is attributable to characteristics even after accounting for a wide range of individual characteristics; age, marital status experience, tenure, education, profession etc. In the agriculture, fishery, mining sector 57.9% of the differences are due to endowments. In the manufacturing and construction sector, over three times as much of the gender wage differences cannot be explained by observables while in the commerce/trade sector over four times and in the services sector over one half of the wage gap is due to unobservables. This demonstrates that discrimination against women is higher contrast to the difference in human capital especially in the commerce/trade sector followed by manufacturing and construction sector but less in the agriculture, fishery, mining sector, and the services sector as much of the differences are attributable to differences in human capital and other observables. It is thus the case that men get an unfair advantage over women.

The average gross hourly wage for males is 9.679 in agriculture, fishery, and mining sector while that of women is 9.223 yielding a wage difference of 0.457. This wage difference can be decomposed into three sections; the endowment part which reveals the mean increase in the females' wage if they had the same characteristics as males, the second part measures the change in females' wage when using the males' coefficients to the females' characteristics. The third term quantifies the simultaneous effect of change in endowments and coefficients.

In the manufacturing and construction sector (second column), the mean men' wage is Kshs. 12,605.70 and that of women is Kshs. 9,697.20 which amounts to a difference of 23.1% with the endowment component being 1.184 which reflects that women's wage would increase by 18.4% if they had the same characteristics as men. The coefficient's component comes at 1.15 which amounts to an increase of 15% increase if we apply the men's coefficients to the women's characteristics. In the commerce/trade sector (second column), the mean men's wage is Kshs.

12,059.10 while that of females is Kshs. 8,778.60 which amounts to a difference of 27.2% with the endowment component being 1.193. It reflects that women's wage would increase by 19.3% if they had the same characteristics as men. The coefficient's part comes at 1.175 which amounts to an increase of 17.5% increase if we apply the men's coefficients to the women's characteristics. In the services sector (second column), the mean men's wage is Kshs. 14,806.10 while that of women is Kshs. 10,582.30 which amounts to a difference of 28.5% with the endowment component being 1.220 which reflects that women's wage would even increase by 22.0% if they had the same characteristics as men. The coefficient's part at 1.209 which amounts to an increase of 20.9% if we apply the men's coefficients to the women's characteristics.

**Table 4.6: Decomposition of Inter-Industry Gender wage differentials**

	Agriculture, Fishery, Mining Sector		Manufacturing & Construction Sector		Commerce/Trade Sector		Services Sector	
	Coef.	Exp(b)	Coef.	Exp(b)	Coef.	Exp(b)	Coef.	Exp(b)
Male	9.679*** (0.328)	15980.20	9.442*** (0.048)	12605.70	9.398 *** (0.055)	12059.10	9.603*** (0.038)	14806.10
Female	9.223*** (0.320)	10122.40	9.178*** (0.112)	9697.20	9.087*** (0.059)	8778.60	9.270*** (0.049)	10582.30
Male-Female Wage Differentials (Difference)	0.457 (0.450)	1.579	0.262** (0.122)	1.30	0.310*** (0.080)	1.374	0.332*** (0.062)	1.400
Endowments	-0.448 (0.742)	0.639	0.169 (0.120)	1.184	0.176*** (0.059)	1.193	0.199*** (0.048)	1.220
Coefficients	0.058 (0.517)	1.060	0.140 (0.119)	1.150	0.162 (0.103)	1.175	0.190*** (0.057)	1.209
Interaction	0.846 (0.825)	2.331	-0.046 (0.114)	0.955	-0.020 (0.085)	0.980	-0.054 (0.041)	0.948
Explained wage differentials due to observables (%)	57.9		23.5		19.0		39.5	
Unexplained wage differentials due to non-observables (%)	42.1		76.5		81.0		60.5	
% Wage Differences	36.7%		23.1%		27.2%		28.5%	

**Notes:** The decomposition results show the average wage prediction by group and their difference across the four industries considered in the analysis. Two wage equations are estimated separately for males and females in sector/industry-standard errors in parenthesis. The % pay difference is calculated as (hourly male wage - hourly female wage)/ hourly male wage.

## **CHAPTER FIVE: SUMMARY, CONCLUSION, AND POLICY IMPLICATIONS**

### **5.1 Summary**

Gender wage disparities exist in almost all countries. As a result, it is a pertinent policy issue not only in Kenya, but also in many developing countries. The Kenyan government has emphasised supporting women by implementing projects and programs to promote women empowerment. This study analysed Inter-industry Gender Wage Differentials in Kenya using OLS regression and data from the World Bank Skills Toward Employment and Productivity Survey (STEP) 2013.

From the study, there is significant evidence of the existence of inter-industry gender wage differentials due to several factors that influence wage formation. After controlling for relevant individual characteristics, a small portion of this inter-industry gender earnings differentials is explained by gender differences in characteristics. This is an indication that wage discrimination against women is greater compared to the differences in human capital especially in the commerce/trade sector followed by manufacturing and construction sector but less in the agriculture, fishery, mining sector, and the services sector as much of the differences are attributable to differences in human capital and other observables. It is thus the case that men get an unfair advantage against women.

### **5.2 Conclusion and Policy Implications**

The analysis in this study reveals that inter-industry gender wage disparities exist partly because of the differences in human capital endowments of men and women and partly due to unobservables-discrimination. It was established that the gender earnings inequality is greatest in the services sector at 28.5% while commerce/trade sector and the manufacturing and construction sector have 27.2% and 23.1% respectively. Also found that women's wages increase to 22.0% in

the services sector, commerce/trade sector at 17.5% and the manufacturing and construction sector at 15% if they had the same characteristics as men. More emphasis should be geared towards improving wage equality in the services sector, commerce/trade sector and the manufacturing and construction sector. This can be achieved collectively by the government and the civil society. For instance, in the Manufacturing & Construction Sector, women should be empowered to train for STEM (Science, Technology, Engineering, and Mathematics) at Universities for them to be competitive in this sector.

### **5.3 Areas for Further Research**

The current study has looked at inter-industry gender wage differentials in Kenya. The results have shown that there exists male-female differences in earnings across industries and therefore future studies should look at public-private gender wage differentials in Kenya.

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