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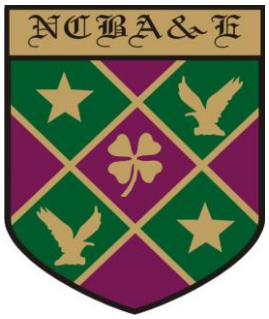

SOCIO ECONOMIC DETERMINANTS OF WAGE DIFFERENTIAL AT WORKPLACE: A CASE STUDY OF PAKISTAN

BY

FATIMA SHARIF

MASTER OF PHILOSOPHY
IN
ECONOMICS

DECEMBER, 2021

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A dissertation submitted to
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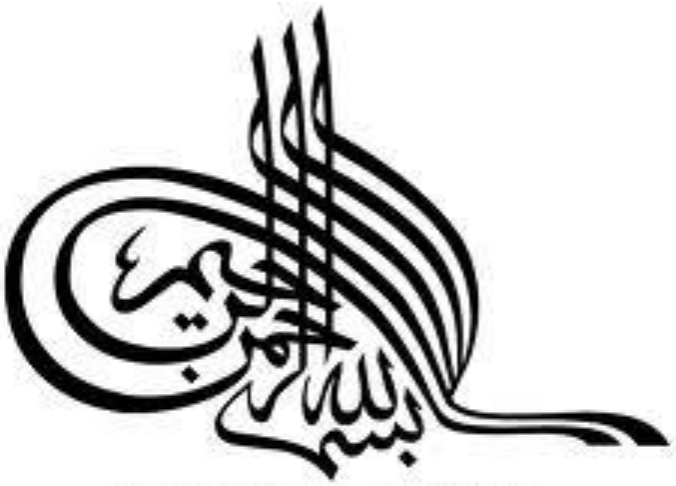

In the name of ALLAH,
The Most Beneficial,
The Most Merciful,

NATIONAL COLLEGE OF BUSINESS ADMINISTRATION & ECONOMICS LAHORE

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Dissertation Committee:

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Chairman

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Member

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Member

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Director Research
National College of Business Administration & Economics

DECLARATION

It is to declare that this research work has not been submitted for obtaining similar degree from any other university/college.

FATIMA SHARIF
DECEMBER, 2021

DEDICATED TO

Holy Prophet (SAW)
The Greatest Social Reformer

&

My beloved Mother and an affectionate Father who taught me the first word to speak the first alphabet to write and First step to take.

ACKNOWLEDGEMENT

All praises and thank to Almighty Allah who has given us the wisdom and knowledge to identify the right path and reach the truth. With profound gratitude, I wish to thanks some marvelous people who have encouraged and helped me through their being presence.

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RESEARCH COMPLETION CERTIFICATE

Certified that the research work contained in this thesis entitled **"Socio Economic Determinants of Wage Differential at Workplace: A Case Study of Pakistan"** has been carried out and completed by **Fatima Sharif** under my supervision during her **M.Phil. Economics** Programme.

(Dr. Mussarat Khadija Khan)
Supervisor

SUMMARY

An important objective of all economic goals is to improve the living standard and eradicate poverty. Fair distribution of income is an important tool to achieve these goals. The wage differential is a serious issue in developing economies. The income level at the workplace is influenced by various socioeconomic determinants. The objective of this study is to investigate the effects of socioeconomic determinants, categorized as personal, family and occupational attributes at different wage levels. The wage levels are classified as lower-wage (< Rs16000.00) and higher wage (≥ Rs16000.00). The study covers three aspects of socioeconomic determinants of wage differential at the workplace among males and females, among males only and among females only. This study has used secondary data from Pakistan Living Standards Measurement Survey (PSLM) 2018-19 and the binary logistic regression technique has been used to evaluate the wage differential at the workplace in Pakistan.

The finding reveals that likelihood of female respondents to fall in low wages at the workplace is more as compared to male respondents. The wage differential therefore, exists in gender. Respondents with higher education are less probable to fall in lower wages compare to primary education. The result indicates that unmarried respondents are more likely to face wage differential at the workplace as compared to married respondents. Respondents who are working in managerial related occupations are subject to wage differential at the workplace compared to other occupations. All determinants have their own impact on wage differential but personal attribute like education is the major cause to check wage differential at Workplace.

Among males, results depicts that the likelihood of married males to fall in lower wages is more compared to unmarried males at the workplace. The wage differential exists in marital status. Males with higher education are more probable to fall in lower wages and there is a persistent increase in wage differential as male's education increases. Males working in occupations other than manager are more probable to face wage differential as compared to managers. Males in rural area are less probable to face wage differential. Similarly, male respondents from the region of residence from Punjab are less probable to fall in lower income level at workplace.

Similarly, results reveals that the likelihood of married and highly educated female respondents is less to fall in lower wages at workplace compare to primary pass and unmarried female respondents. Urban and residents of Punjab and KPK region's female respondents are less probable to fall in lower income level at workplace. Whereas, the likelihood of Baluchistan and Sindh female respondents is more to fall in lower income level.

LIST OF ABBREVIATIONS

WDF	Wage Differential at Workplace
AGE	Age
ASQUR	Age Square
GEN	Gender
MAS	Marital Status
EDU	Education
OCC	Occupation
PRO	Province
REG	Region
MAN	Manager Occupation
PRO	Professional Occupation
APR	Associate Professional Occupation
CLER	Clerks Occupation
SERV	Service and Skilled Worker
SKILA	Skilled Agriculture
CAT	Craft and Related Trade Worker
OPER	Plant Machine Operator and Assembler
EMR	Elementary

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Wage differential has various dimensions and can be analyzed through different aspects, such as by gender, occupation, skills, education and region etc. Adam smith suggested that wage differential will be primarily determined by differences in occupations. Smith's theory states that wages will be adjusted so that the labor market for that particular occupation will be in equilibrium. Whereas, Becker states that as people invest in "human capital" through education and by increasing their skills, they would be more valuable. Wage differential is the human capital theory (Becker, 2009).

Wage differential persists in variety of occupations and industries, lies in different economic domains and schemes. A large wage differential occurs among high paid workers than low paid workers. Such as 9.4 percent in the professional and technical groups and 9.3 percent in the clerical services groups (Vecchio et al., 2013).

Wage differential is also the subject of region. In urban areas there are more employments opportunities and better educational facilities, people are more inclined to go in cities and big urban poles. Urban worker's productivity level is higher. There are reasons to expect the differential is highest for more educated workers. There is hardly any control on the rural urban migration, people can move to the central pole for employment from rural areas. Similarly, the work environment and living conditions varies from region to region. The urban labor market in China has grown vastly in the past three decades as a result of economic development and rural to urban migration flows which lead to an increased wage differential and disparity (Su and Heshmati, 2011).

Theoretically, the wage differential is due to the differences in individual endowments categorized in personal, family and occupational attributes. Mostly the highly educated workers with more work experience earn high wages. Family attributes creates wage differential at workplace (Pan, 2015). The marital status specifically among female workers cause hindrance in employment and wage differential at workplace. Married women are refused to hire, while married women and working mothers are confronted with money issues. It reveals that difficulties circle around having lesser time

to do their hobbies, socialize and engage to leisure activities to relax (Parveen, 2009).

They also felt that their relationships with their partner and their families were already at the expense of missing their inputs. It is really the most difficult task for married women to integrate their multiform obligations of career, household, spouse and children. The consequence of women's feelings of incompatibility to deal with these demands is the occurrence of high level of occupational inequality as proved by the findings of present study. The main reason behind the differential has been a lack of equal access mostly to higher occupation and other jobs. Women are still segregated at the bottom of the organizational hierarchy.

Gender differential is a fact which is created by nature and globally that lead to the dual role of gender which creates differences that apparent in several areas of daily life. Social role of gender is explained as a relationship between people behavior, people apprehensions and predications. That is how girls and boys or men and women should react, gender differences identified through people activities normally girls like to play with dolls and boys with football and mechanical tools etc. (Thompson, 2014). Gender differential may sluggish down the social and economic growth of the country (Irfan et al., 2013).

In practically all societies and all domains of activity, females are exposed to inequalities. Subsequently, tend females have usually lower levels of professional opportunities, lower level educational and vocational training skills than men. In different terms like occupational choices, administrative decision, health and educational facilities, legislation, contract building in media and communication females mostly counted weaker and helpless. There are two types of differential fair and unfair differential. Fair differential is normally based on the skill capabilities and individual's differences however unfair differential describes as to discriminate between the individuals on the base of sex, color, cast etc. Discrimination is perceived to be an aberration that can be eliminated with the extension of equal right to all.

Way back before 1950s females were not much educated and so they were not there in employment and therefore there was no question of gender differential at workplace but today females are there in almost all fields and so the question of gender differential arises at every corner of the organization. Females in these days choose to get educated and persuade career and followed profitable businesses opportunities. Women in Pakistan facing many problems where women are restricted to the house due to tradition of veiling, societal and cultural biasedness. This limits women's approach to schooling,

employment, and well training options and social services. Furthermore, working women are facing the problems of independent survival, and need a male to look after them. Women have been perhaps pragmatically accepting submerged societal bias within and outdoor workplace. Hence most of them have to manage double personality. The first look as a title character of the females for example as an employee and the second look as a domestic character for example as a mother/wife. Mostly would lead to move from working at primarily females dominated occupations (for example teachers and nurses) to male-governed occupation such as managers and engineers (Michailidis et al., 2012). No doubt socioeconomic progress has determined through well-organized and well status female. Half of the human resources are from females. This is the big amount we cannot ignore the women role. Hence women have to be faced the brunt of daily issues of suffering at workplace, especially in developing countries. Also traditional custom and barriers are creating hurdles (Chaudhry, 2007).

There is no doubt that todays the greater part of female's contribution in the development and growth of economic actions is contemplated as a spine of economy. The degree of poverty is classified by unemployment and gender differential in the labor market and inadequate entry to economic prospects also the extent of poverty is higher among females than men. (Khan and Khan, 2009). In a developing country like Pakistan, many traditional norms which are creating hurdles and usually make it difficult the action of taking part in workplace and outside the home (Sultana et al., 1994). Thus, a greater part of the female population does not contribute in the development process.

Pakistan is also one the most crowded or populated country in the world and women are about half of the total population. Working women faces domestic as well as workplace problems (Avais et al., 2014). To fulfill basic desire and to support the family daily life, women of middle class are working in private or public organizations. Their salaries are mostly utilized on maintaining of family uplift and other domestic issues. Women by their very nature are gifted with parenting skills are limited to their children. Given the array of feasible alternatives, women may prefer the "mommy track" because of family responsibilities (Wright et al., 1995).

Motherhood myth work for a justification function concerning gender differential against females in the workplace (Verniers and Vala, 2018). Well accomplished, professionally competent, expert, analytically sound workforce is the capital of the country and that is very necessary for the development and growth of economy. Unluckily, in Pakistan there is a great shortage of human capital. Respondent's earnings are settled as their own output production functions where education and experience are settled as the factors of

production (Awan and Hussain, 2007). Cultural standards, make women inferior to men like to consume less on women daily needs. Women and men should contribute equally in the social, cultural and economic life through gender equality because it is an essential objective for democratic countries survival and progress. Even though improvements have been made, but gender equality is still not attained as men and women are not treated equally in the workplace.

The modern workplace is a central ground for shaping societal gender inequalities (Kalev and Deutsch, 2018). Wage inequality has upgraded in new eras but did not vanish. Qualification and work experience differential among male and female has been narrowed down, but gender wage differential still exists and has become the main root of gender discrimination at workplace. This study will first define the current literature and then specify that the occurrence of gender differential at workplace. The aim of this study is to estimates socioeconomic determinants of wage differential at workplace in Pakistan and the socioeconomic determinants are categorized as personal, family, and occupational attributes.

The determinants of wage differentials are derived from the latest available national dataset; Pakistan Living Standards Measurement (PSLM) Survey 2018-19.

1.2 PROBLEM STATEMENT

Wage differential at workplace is challenging in all over the world. Pakistan being a developing country is also subject of wage differential. Supply demand models, vote-maximization, human-capital, segmented labor markets, rents and bargaining models are the main terms of differential in employment opportunities (Bender, 1998). Female labor force role is 22 percent and male labor force involvement is 81 percent (ILO, 2020). Global Wage report 2018-19 explained that gender inequalities in wage is a main issue in all countries and on average women earn 20% less than men internationally.

Wage differential has various dimensions from individual endowments to sect-oral and regional perspectives. Mostly the highly educated workers with more work experience earn high wages. Family attributes creates wage differential at workplace (Pan, 2015). Urban wages are more attractive for rural workers. Gender differential at workplace creates income gap and affects the performance of female employees (Khalid and Aroosh, 2014). Gender inequality at workplace creates gender segregation in occupations.

King (2009) checked gender inequality at workplace and used ten different occupations like professional, technical manager, clerks, service workers, elementary workers, skilled agriculture, craft associated workers, plant operators, and armed forces. It was observed that there was gender based apartheid, particularly manager, skilled and elementary occupation.

It is important to identify that how these socioeconomic determinants, categorized in personal, family and occupational attributes influence wage differential at workplace among male and females as well as within males and within females.

1.3 SIGNIFICANCE OF THE STUDY

Educational sector, labor market, business sovereignty, bargaining power and greater depiction in political and civic life are the main zones in which women have made advancement in social and economic activities. But wage differential persists globally in all walks of life. Inequalities at the workplace is also a form of gender different. Most of the researcher has focused on wage differential on exploring the mechanisms that reproduce and expand gender inequality.

It is beneficial to analyze the extent of wage differential because the existing literature showed different outcomes for men and women in labor force participation, occupational choice and conditional earning. This study will categorize the socioeconomic determinants of wage differential at workplace and has considered personal attributes, occupational attributes and family attributes as the main causes behind wage differential at workplace.

Wage differential at workplace are may be due to segregation in endowments, and productivity linked with personal features of the labors, in levels of human capital, occupational variations, and differences in resources. Second the wage differential reasoned due to the wage structure through several sectors; employees with the same institutions may get different payments in different segments. Third gender inequality may be a cause of wage differential.

In this study the focus is on important aspects missing from previous studies related to wage differential among male and female as well as within the males and within the females. This study will shed lights on significant areas absent from preceding studies and it will be helpful to formulate steps and take measures to eradicate the wage differential at workplace.

1.4 OBJECTIVE OF THE STUDY

The objectives of this study are:

- To explore the impact of personal attributes on wage differential at workplace (among males and females)
- To explore the impact of family attributes on wage differential at workplace (among males and females)
- To explore the impact of occupational attributes on wage differential at workplace (among males and females)
- To explore the impact of personal attributes on wage differential at workplace (among males' respondents)
- To explore the impact of family attributes on wage differential at workplace (among males' respondents)
- To explore the impact of occupational attributes on wage differential at workplace (among males' respondents')
- To explore the impact of personal attributes on wage differential at workplace (among females' respondents)
- To explore the impact of family attributes on wage differential at workplace (among females' respondents)
- To explore the impact of occupational attributes on wage differential at workplace (among females' respondents)

1.5 RESEARCH QUESTIONS

The following questions have been developed to explore:

1) Do personal attributes affect wage differential at workplace in Pakistan?

2) Do family attributes affect wage differential at workplace in Pakistan?

3) Do occupational attributes affect wage differential at workplace in Pakistan?

1.6 HYPOTHESIS

Ho: Personal attributes do not affect wage differential at workplace.

Ho: Family attributes do not affect wage differential at workplace.

Ho: Occupational attributes do not affect wage differential at workplace.

1.7 ORGNIZATION OF THE STUDY

In this research chapter 1 explained introduction, 2 literature review, 3 theoretical framework and methodology, in 4 discussed results and discussion and chapter 5 presents the conclusion and recommendation.

CHAPTER 2

LITERATURE REVIEW

Wage differential restricts women to access economic and social opportunities, political and lawful status, personal freedom, family responsibilities. Whereas gender, is a societal map to classify person as male and female. Gender differential is socially raised gap between men and women (Amin, 2015). Gender Inequality is a worldwide phenomenon. Knowledge of gender differential relations is necessary, mainly at the workplace context where it may influence on employment relationship and their opportunities and career progression (Hipolito, 2020). The gender and socioeconomic indicators are used as a policy priority for the accomplishment of EFA (Education for All) program (Sen and Mukherjee, 2014). The results will be helpful for scholars meditates in gender issues, as well as for legislators and experts occupied in understanding a more gender equal society. Gardeazabal and Ugidos (2005) examined that wage differential is reliant on the human capital theory.

Casarico and Profeta (2015) investigated and proposed the measure of determinants of gender gap at workplace. The scheme of their study is to explore the gender differential in risk perspectives extents. Females are quite suitable in high paying jobs or in highly competitive environment. They can help to overcome socially created variances in well-designed institutions. The purpose of their study was to expand the idea of price ceiling in high paying jobs or highly competitive environment. Wage differential takes place when related worker are paid different wages at workplace. In order to measure wage segregation in different perspective the purposed mean wage differential splits into two portions, the first part explain differences in characteristics and in the second part explain differences in returns to these characteristics. Data collected through Spanish sample survey in October 1995 from European Union. To check wage distribution used extended Oaxaca's scalar measure with the help of quintile.

Gender wage difference, explicitly earnings are affected by the gender structure of administrative and managerial staff (Hultin and Suzulkin, 1999). Results illustrate that women access to administrative staff in relatively up to low wage earner. Reskin et al. (1999); Hirsh and Konrich (2008) examined the elements and outcomes of race and sex structure of organizations. Also explained that sex diversification prevailed in largely socioeconomic and cultural societies in different ways. Smith (2002) examined race and gender

bias, authority restriction at workplace. Results of the study state that women faced number of problems at workplace such as job access, lower income returns and exclusion from authoritative jobs. Yasin et al. (2012) used date of Pakistan labor force survey and applied cross sectional analysis. The results demonstrate in the absence of inequality and discrimination women are equally efficient under certain circumstances.

Adamchik and Bedi (2000) examined pay distinctions between public and private sectors employees. Results suggests that for the public sector wage differentials will make it challenging to attract and keep it skilled employees. These perceptions and opinions are caused negative effect on the organizations and employees, but education can minimize these inequalities. Schneider et al. (1997) checked the connection between job associated and psychological consequences of sexual harassment at the workplace. Results propose that comparatively low level but recurrent sexual harassment can have, significant negative aspects for working women. Pakistani society is a subjective place where gender biasedness exists like other countries for example, females also face the unequal access in different opportunities in gaining of health, nutrition and education and also suffering male command over assets. The biasedness is the hindrance for females to reach their optimal potential level and efficiency. It is very important to establish suitable environment for education, health and attaining skills to explore the role of females in a society.

Khan (2016) fined the females human assets and its impact on economic growth of Pakistan. Johanson's Cointegration Approach and Vector Error correction model has been applied by using time series data 1972-2012. Research results explored that the long run relationship is positive and significant while the short run effects on economic growth is positive but statistically insignificant. Ashraf and Ashraf (1993) found male-female wage differential, and conclude that proportion of this wage differential was the main reason of differential in productivity among males and female's characteristics. Results revealed that presence of high levels of pay differential against women. Ashraf and Ashraf (1996) calculated the gender earnings differential for the entire country by household and income expenditure surveys (HIES) for 1979 and 1985-60 data. Pervaiz et al. (2011) examined the relationship between earning gap and economic progress of Pakistan. Gender differential in employment and wages is also argued economic growth effects through different channels. For example, gender breach (break) in employment can decrease the average aptitude of work. This decrease in female's work force inhibits economic growth. Likewise, gender wage differential has influenced economic growth and degree at which it developed the country. Also time series data applied for the period of 1972-2009. Results of the study investigated that labor force, growth, investment and trade candor (openness)

have foremost statistically positive impact and gender inequality has a statistically significant and negative impact on economic growth of Pakistan. Education has a key role and impact on economic growth and human capital of Pakistan. Awan and Hussain (2007) used household's analysis in Pakistan by checking total wages in Pakistan and their profits to education and also checked the gender discrimination. Results reveled that income gaps between educated and uneducated workers in first-time employment also tend to increase with experience.

Sabir and Aftab (2007) observed that gender wage differential evolvement over the period covering 1996-97 to 2005-06 for the wage employed in Pakistan. The primary motive of their study to express the impact of modern economic development in context of wage differential. The increase in the gender wage differential during these two years is more prominent at the bottom rather than at the top end of wages. Channar et al. (2011) in their study also examined sex disparity at workforce and its impact on the satisfaction and motivation, commitment and enthusiasm and stress level of employees. Indirect and closed ended questionnaire was managed from 526 males and females employees of lower, middle and higher category of public and private health and education departments of Hyderabad and Jamshoro districts. The results demonstrated due to gender differential the level of stress doing work at workplace increases while decreases satisfaction from that work in form of wages, motivation to do more work and commitment with legal companies and enthusiasm level to boost their skills also decreases. The results of the study showed that females were discouraged more than males in private organizations rather in public sectors.

Rafiq and Shah (2012) to check out the validity of the compensating wage differentials in Pakistan used the value of statistical life and injury for the country. In their study they have focused on the blue-collar industrial workers in Lahore to evaluate the compensating wage differential among male and female. The survey was conducted in all parts of Lahore from May 2009 to October in the same year. The F- statistics confirms the high explanatory power and it has the overall significance of the above-mentioned model. The results have been applied for computing the Value of Statistical Injury (VSI) which is 25.16 million and one hundred and eleven thousand Pakistani rupees respectively. Bui and Permpoonwiwat (2015) examined wage differential among Thailand workers using Blinder Oaxaca decomposition technique. Wage differential is divided into two groups, in the first group consists unexplained (unsolved) portion of wages and in the second group consists explained (solved) portion due to variances in their endowments (financing). In Thailand wage differential has lessened over the last decades from 14 percent in 1996 to 10 percent in 2006 and then 1 percent in 2013. However,

mysterious share of gender wage differential supporting men enlarged sharply in 2013 after a small drop in 2006. Women on average have made greater advancement in education and skills in these years. But growth in wages were lessened by sexism. Results exposes that in different industries of females leading sectors wage inequality were growing.

Ali and Ahmad (2013) contemplated foreign aid helped capital lacking economies to fulfill the necessary and urgent need of the finances and boost the growth of the country also it increases the level of finances to rise growth, it enlarges the employment and earning also it helps to reduce poverty in the recipient economies. They checked foreign aid impact on wage differential in Pakistan. They used time series data and ADF Augmented Dicky Fuller and Phillip-Person unit root test. To find out each of the time series to be stationary at its first difference Johansen co-integration test and vector error correction models are used to check effects of growth. The results are statistically significant and foreign aid, investment and labor force participation rate are cleared to have inequality growing impact. Hyder (2002) explored wage disparities between public and private sectors of Pakistan. The wage equations are estimated to discover financial rewards of human capital endowments crosswise the two sectors. This study uses cross- section data from the nation-wide Labor Force Survey (LFS) 1996-97. In order to eliminate the selectivity unfairness, we use Heckman's two stage procedure. The results showed that holding all other variables constant wages increased in the private sector when workers reach 46 years of age. The study discovered that large public private wage disparities exist in Pakistan.

Trentham and Larwood (1998); Abrams (1989) examined the gender discrimination at workplace throughout the world, women still suffer from differential and exploitation at workplace. In practically all societies and all domains of activity such as women are putted to disparities. For example, premature marriage, dowry, domestic cruelty and violence, femicide, female feticide, rejection of education, unfairness' in food, clothing and accommodations, less respect in family and society, no administrative power, mostly preference of son towards women. Shafi (2019) also observed discrimination among women and also women rises their voices regarding differential. Schmid (2016) observed the gender wage differential in Switzerland, using data from Swiss household. The results exposed women still earn less than men with the same bequest (endowments). One of the main reasons for this differential is occupational exclusion and the other one is women and men working in female exposed professions. Syed et al. (2013) proposed a brief theoretical background on equal opportunity by explaining a multi-level approach. Data were collected from 30 women through interviews working in the above discussed sectors. The study highlights cultural and

organizational challenges, faced by working women in Pakistan. Sarwar and Abbasi (2013) determined that Pakistani women are facing serious employment issues regarding wage. While theorist appealed that women employment effect positively on countries economy and women wellbeing. They conduct Labor force data from WBP (World Bank and Pakistan) bureau of statistics that contribution of working women in Pakistan as a percentage of total women employed and proportion of total work force. This contribution of working women is far below from international standard and developed countries. Wage differential at workplace in socioeconomic, political place and cultural elements badly affect the status of females in job position, which limit the employment opportunities and options for females in present situation as well as in future. It is advised that holistic change approach should be useful and must started in country and it would also have helped media and masses.

Cukrowska-Torzewska and Magda (2020) examined firm level factors of gender wage differential by linking the relationship between a firm's age and the size of its wage disparity using European formation of earnings for eight European countries. Results of the study indicate that the gender pay differential are lowest in the newest firms in eight European countries. Also showed that in central European countries, the degree of the gender wage differential apparently rises with the time period of the company, whereas the member of states identify that such links are not as clear. Level of gender wage differential appear to be highest in such companies that were previously state owned but in other context were honored during the transformation. Ma (2016) investigated the factors of the wage differential among migrants and local inhabitants in China. The survey has used Chines Household Income Project (CHIP) data 2002-2003. The study come up with an investigation founded on the Oaxaca-Blinder decomposition model. The results specify individual's features, regional dissimilarities, differences among industries, and public, private segmentation factors causing the wage differential.

Tandrayen and Pydayya (2016) examined the extent of the gender wage differential in the public and private sectors in Mauritius across sectors they also used Oaxaca and Blinder technique to decompose gender wage differential. Data collected from Continuous Multi- Purpose Household Budget Survey (MPHS) from 2006 to 2013. Study used cross-sectional data sample size on average 12,000 household per year. According to study it was noticed that disparities in gender are existing in both economic sectors; however, it was noticed that inequalities are more in the private sector. Females who are suffering low paying, low mobility and sticky floors position are larger at the lower wage level compared to the top end of the wage division. The last but not least unexpressed wage gap is excessive in the private sector than in public sector over the year. Galor and Moav (2000)

discovered a growth model in which the endogenous assessment of technological revolution, and wage disparity are according to the same pattern which expressed in the US and several other countries in the last centuries. The evaluation of the economy and its impact on wage inequality is based upon three central elements that consistent with empirical evidence. Firstly, the state of transitional and socioeconomic changes and increase the return to skills (ability and education). Secondly, the rise in return to abilities which induces in the supply of educated individuals. The last one is, growth in the number of sophisticated respondents in higher occupations and the rate of technologies also improved. These fundamentals creates a dynamic path that described a positive feedback loop which rise the rate of technological innovation. The framework of analysis in this study is suitable for examination of the unexplored territory of the international spillovers of wage differential.

Lankisch et al. (2019) measured that the central object of the study is to devote the higher education in mechanical department. Doing so would yield a larger share of high expert workers in the economy who are not expert in mechanization as low-skilled workers. Such policy could have a diminishing effect on increasing in wage inequality. Results shows that, there is interesting case in the long-run achieved stable growth path and the economy raises at a persistent rate, in spite of the absence of technological evolution. The academic suggestions are in line with the data for the United States since the 1970s.Sattar et al. (2013) expressed women are facing gender differential in job opportunities and consistent prejudice factors have negative impact on their working. Data collected from 200 female employees that were working in Banks and Mobile Franchise of Multan city (Pakistan). Binary logistic regression was used through appropriate sampling techniques Chi- Square test. Results reveals that unequal opportunities and institutional obstacles become the top barrier in carrier advancement of the female. Even the capable and competent females (who have ability to get managerial seal) cannot gain access due to various stereotypes job directions committed with the female's job direction. Fatima (2012) has explored the factors causing inequality among males and females at workplace of university teaching faculty. Study has collected data from questionnaire of total 146 instructors from both private and public sector universities. In the study statistical research revealed that males and females teacher job resources, their partnership of doing work and support from colleague at workplace affect positively work life stability whereas detrimental criticism at job is negatively associated with work life balance. Independent sample t-test is used to evaluate the work life stability with respect to males and females university teachers.

Biltagy (2014) investigated the hindering factors in earning differential among males and females in Egypt. This study has used Oaxaca

decomposition technique and used the data from Egypt Labor Market Panel (ECMPA) Survey 2006 and 2012.differences in earning among males and females in country Egypt to check the hindering factors that cause these dissimilarities. The findings of this research are great helpful and revealed that differences in earning between males and females are from differences in features such as, education, experience and discrimination against women and the other one is selectivity bias. It is assessed that, the wage differential between males and females is 25 percent in 2006 and 21 percent in 2012 respectively.

Nasir and Bashir (2012) has pointed out the lesser job satisfaction, comfort from job, administrative injustice or inequality, workplace environment and employee's awareness are the core roots for the abnormal workplace behaviors and attitudes in the government sector of Pakistan that creates problems for the employees. But the most important element out of these are administrative unfairness and job dissatisfaction which creates unusual behaviors. Shaukat and Pell (2016) investigated gender inequality among higher educated faculty in Pakistan. Study have checked basic fundamentals of female's inequality by a questionnaire survey of 180 faculty staff. They observed important dynamics caused inequalities for example decision making in professional expansion, utilization of resources, educational affairs and job happiness. Data were collected through random sampling techniques from ten public and private universities of the Lahore. Results indicate that in various sectors males has more command only in verdict construction (decision making). Cluster analysis differentiates between the majorities of equality who react differentially in term of the socio- cultural standards of traditionalist and between old-fashioned societies.

Fields and wolff (1995) analyzed wages of those female workers which contrast remarkably by industry. Ordinary least square OLS regression has evaluated individually for males and females workers. Data collected from the March 1988 of current population. Research finding pointed out two important components which was primarily even adjusting productivity characteristics of workers, still exists a substantial wage differential at the industry level. Furthermore female workers, particularly part time and temporary workers, still tend to be engaged in the low paying industries relative to male workers. Shah and Baporikar (2013) inspected gender imbalance are worldwide phenomena. There is no country in the world where men are equal to women or do not have a gender inequity. Data collected by interview procedures from 210 married female (7 female from each village). It is interesting to discuss there is a big gap between rural women and those women who got a well apparent position in the government and society. Through time and from studies determined that males are the fundamental of differential. The cycle of

gender disparity is carried because of the method “What I got; I give back” accepted by women. Pokharel (2008) conclude that differential is concede as a type of inconsistency and problem for women everywhere in the world. This study discussed discrimination among married and unmarried women. It acts upon women capability to contribute freely and fully in society and take up psychological adverse outcomes. The study has intended descriptive based. The survey from total of 200 women was designated arbitrarily for this study. The study results demonstrated discrimination against women in numerous characteristics, like married women more discriminated in the societal level, facing segregation in assets, profession and schooling. Similarly, unmarried females have faced greater distinction in mobility and occupation.

Iqbal et al. (2012) scrutinized gender distinction is a non-traditional security hazard. Pakistani women more than half of the total population are treated harshly within their homes and by leading males. Results of the study showed disproportion are deep rooted in education and employment segments societies. Hence for the development and success of a country there is need to eradicate the preconception approaches of the society with regards to the women. Bobbitt-Zeher (2011) examined that the nature of work of men and women practice are quite opposite and exists wage differences in professional sex segregation and discrimination in work authority. Data comprised cases of employment field from the Ohio Civil Rights Commissions OCRC in 1988 and 203. This work participates to our understanding of relationship by analyzing 219 unfair stories of sex inequality carried before the Ohio Civil Rights Commissions. The findings suggest the importance of cultural, structural and international influences on gender discrimination. Sia et al. (2015) inspected the role of proposed gender differential to work engagement the role of future time perspective (FTP) and more importantly the moderating role of work engagement. Data collected from Channai and Puducherry India, contain 234 female floor level non-managerial employees working in textile and attire companies. Results indicate that FTP has a positive relationship with physical, intellectual as well as demonstrative commitment of the respondents. Rabia et al. (2016) explored the existence of the gender bias at work place in education sector of Pakistan and how the gender differential effect work place environment. Non probability sampling and qualitative research convenience sampling has been used for data collection. Results of the study showed according to traditional cultural conflicts in the society women were discriminated more and subordinated to the men. Ahmad and Naseer (2015) settled that gender differential by means of sticky floor and glass ceiling effects in the government and private sector. The data gathered through interviews, examinations and investigated using Microsoft Excel. Measuring method was adopted, in which variables assigned empirical properties according to the rules by Chave study 1992. Study finding showed females

faced unfair behavior not only from their instant advisors, but also from their social group at the workplace. In the public and private administrations, the study has found that there is gender favoritism in promotions.

Mousa et al. (2020) examined nurse working performance in municipal hospitals to find out how gender may affect their insight of both heterogeneity organization and legislative inclusion. A total of 360 form were collected from nurses in three public hospitals in Egypt. The authors used a t-test to identify how sex may influence insights of variety management. Results are statistically positive and showed that female nurses are more diversified in management compare to their male colleagues. Gabriele (2017) research extremely points to the complications for women and other challenges specifically by mothers, in stabilizing professions with responsibilities at home. Mostly, legislative design, training settings and personal life events are found to balance the professional careers of females and males separately. Further the issue of wage differential at workplace in Pakistan belongs to two different types of hurdles. Firstly, related with the administrative strategies at workplace and their applications such as hypocrisy to policy, lack of direct policy, carelessness of policy plays a significant role in creating the same opportunity. Secondly, to compare the cultural rules where employees following their faith and values to work. The kind and domain of women's contribution and participation to work is largely determined by socioeconomic and cultural aspects. Women in Pakistan remain subject to traditional norms and standards which is mostly controlled by a variety of social and structural provokes, like other male governing societies. In job selections females are limited to social and cultural as well as political constrains (personal freedom, laws, and taboos), which creates gender bias in the society as well as in the labor market. The data are gathered from a nationally representative panel study. After the JD study in 2002 (AJD) began their career in 2002 and 2007.Logistic regression outcomes illustrate that there are still major variations in workplace between mothers and fathers. Also, discovered gender disparity of employment and administrations by investigating quantitatively experiences of inequity.

Though the literature is quite rich about wage differential at workplace from different perspective like public, private wage differential, gender wage differential but this study is different in a manner that it has covered socio economic determinants by categorizing in different attributes and the gender wage differential is covered not only among male and female but also among males as well as among females due to different attributes.

CHAPTER 3

THEORETICAL FRAMEWORK AND METHODOLOGY

3.1 THEORETICAL FRAMEWORK

Wage differential at workplace is a subjective concept which can be measured through different socioeconomic determinants. Ideally, every government focuses on the equality and fairness of its citizens. Because fairness can increase social unity and decrease political disagreements. Most policies need broad political support which is effectual when the division of income is seen as fair. Policies that endorse equity and decrease inequality can help directly and indirectly to reduce poverty. When income is more inequitably divide, fewer individuals fall under the poverty line. Equity enhancing policies, mostly such as share in human resource, equal distribution of resources and education, boost economic growth which in turn alleviate poverty (Chu et al., 1999).

Wage differential at workplace continued all over the world because of gender inequality, lack of access to education, shortage of employment opportunities, job segregation, lack of awareness, legal complications, cultural and religious constraint, poor health and dearth of political representation. In this study, wage differential at workplace used as a proxy of monthly income of the respondent at workplace.

Gender differential at the workplace demonstrates itself in multiple forms; gender differential in employment, gender differential in wages, sexual harassment and care work etc. According to UNDP in 2009 wage differential is one of the highest gender based inequality in Pakistan as related to other developing countries in South Asia (Syed et al., 2013). Syed et al. (2013) has emphasized that the mainstream of the contributors is not alert about the wage differential issues and at the same time are not alarmed about it.

It has known that females are facing many challenges which can be classified into three different classes i.e., micro individual level (e.g., intersectionality, agency) macro societal (e.g., legal, social cultural), meso organizational (regulatory structure such as trade unions, human right groups), and problems associated with workplace and gender stereotype were defined. It is useful to examine at the macro societal level, how sociological and institutional forces interact and connect with each other to examine the way

they affect equal career chances at workplace and other areas. The micro level understanding helps the females to select their labor market decision. The meso-organizational consideration helps females to choose right groups of trade union and also helps in selecting human rights groups.

Different organizations measured gender gap through different measures for example GII (Gender Inequality Index) by UNDP and GGP (Global Gender Gap) by World Economic Forum (WEF) reports. GII is a compound measure, reflecting differential in procurements between males and females in three dimensions; reproductive health, empowerment and worker market. Whereas these measures are subjective in their nature, but this study is more focused on Wage Differential at Workplace which seems more policy oriented. This study has taken the idea of variables selection from (Sabir and Aftab, 2008; Pudrovaska and Karraker, 2014; Amin, 2015; Khan, 2016) etc.

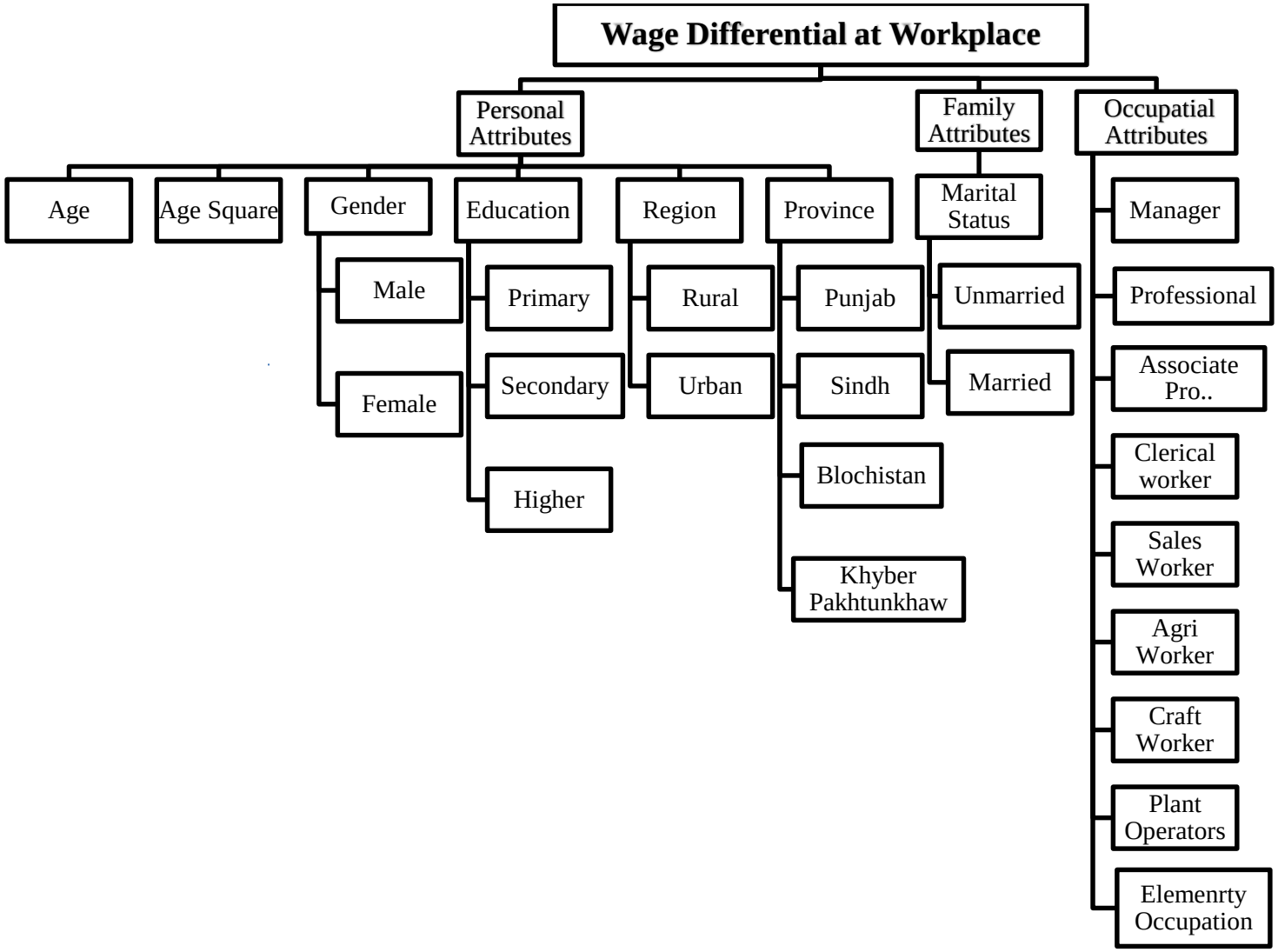

Figure 3.1: Conceptual Model of the Study

3.2 METHODOLOGY

This study, investigated socioeconomic determinants (personal attributes, family attributes and occupational attributes) of wage differential at workplace. In this section we will discuss the model of the study, specification of our variables, estimation technique and data source. For the regression analysis different models have been used.

3.2.1 MODEL

The functional form of models is given below:

$$WDF = f(GEN, AGE, ASQU, MAS, EDU, OCC, PRO, REG) \quad (3.1)$$

$$WDF = f(Males, AGE, ASQU, MAS, EDU, OCC, PRO, REG) \quad (3.2)$$

$$WDF = f(Females, AGE, ASQU, MAS, EDU, OCC, PRO, REG) \quad (3.3)$$

Variables and their specification are given below:

3.2.2 Specification of Variable

DEPENDENT VARIABLE

Wage Differential at Workplace (**WDF):** Wage differential at workplace used as a dichotomous variable having two categories monthly income of low and high income. According to minimum wage notification in Pakistan 2018-19, we have adjusted below Rs.16000.00 as low income and above than and equal to Rs. 16000.00 as higher wage groups. The respondents earning above than and equal to Rs.16000.00 are coded as 1 and below Rs.16000.00 are coded as 0.

INDEPENDENT VARIABLE

PERSONAL ATTRIBUTES

In personal attributes following variables are added. These attributes are relevant to both genders (males and females):

Gender **(GEN)**: Dummy variable, equals 1 if individual is male, 0 otherwise (in case of join analysis of male and females)

Age **(AGE):** Age in completed years

Age Square **(ASQU):** Age Square in completed years (adding the age squared to age, permits model to check the effect of differing ages, rather than presuming the effect is linear for all ages)

Education **(EDU):** Education variable divided in three different groups like primary, secondary and higher educational groups. In primary education includes primary passed. In secondary education includes those respondents who have passed 6^{th} to 12^{th} class education. In higher education include those respondents who have passed MBBS, Engineers, Lawyers, MA, and M.Phil and B.Sc etc. We have used higher educational groups as a reference category.

Province (**PRO):** Province includes four provincial groups of Pakistan Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan. Province Punjab is used as a reference category of variables.

Region **(REG):** Dummy equals 1 if place of resident is urban area, 0 otherwise

FAMILY ATTRIBUTE

Family attribute consists on marital status of the respondents that the respondent is married or a single. It has been used by number of authors (Adamchik and Bedi, 2000; Asif and Pervaiz, 2019) as a determinant of wage differential between males and females at workplace. Marital status is used as a family attribute of respondents. Before marriage, the work approach of females as well as males is different, which may cause wage differential. The individuals being bachelors, mostly have less responsibilities. They establish many friendships goals and connect freely among themselves. They face less financial burden to support a family. They may become less concerned about the amount what they have been paid, how long they are working and the place of their working. They are more individualistic in their daily necessities and less contingent on their parents from their earnings. Marital status is an important variable of family attributes to influence wage differential at work place.

Marital Status **(MAS):** Marital Status also used as a dummy variable if married =1, unmarried =0

OCCUPATIONAL ATTRIBUTES

The second variable used in this study is occupation. Which is further categorized in nine different occupations and manager is considered as a reference category. In this study:

Manager's occupation (**MAN**) includes: Chief executive, senior officials and legislators, Administrative and commercial, Production and specialized supervisor, Hospitality, retail and other managers

Professional **(PRO**) includes: Science and engineer, Health, Teaching, Business and administrator, Information and communications technologist, Legal, social and cultural professionals

Associate professional (**APRO)** include: Technicians, Science and engineering, Health, Business and administration, Legal, social and cultural and related associate, Information and communications associate professional
Clerical support workers (**CLER)** include: General and keyboard, Customer's services, Numerical and material recording and other clerical support workers

Service and sales workers (**SERV)** include: Personal service, Sales and Personal care workers

Skilled agricultural, forestry and fishery workers (**SKILA)** include: Market-oriented skilled employees, forestry, fishery and hunting workers, Subsistence farmers, fishers, hunters and gatherers

Craft and related trade's workers (**CAT)** include: Building Craft and related trade's employees, excluding electricians, Metal, machinery and related staff, Handicraft and printing labor, Electrical and electronic, Food processing, wood working, garment and other craft and related workers.

Plant and machine operators, and assemblers (**OPER)** includes: Stationary plant and machine machinists, Assemblers, Drivers and mobile plant minder

Elementary occupation (**EMR)** includes: Laborers in mining, construction, manufacturing and transport, Cleaners and helpers, Agricultural, forestry and fishery laborers, Food preparation assistants, Street and related sales and services workers, Refuse workers and other elementary helper

In present study dependent variable used as a categorical variable. In binary logistic regression, the dependent variable consists of two possible

outcomes. In this case, binary logistic regression is a useful statistical technique (Gujarati, 2009). Asif and Pervaiz (2019) in their study used dichotomous variables (categorical dependent) and applied binary logistic regression. In binary regression analysis, the dependent variable, wage differential at workplace has been constructed by using monthly income of paid earners of above-mentioned occupational groups like manager, professional etc. The respondents earning above than and equal to 16000 are coded as 1 and all others coded as 0. Because a large wage differential persists among higher income group than lower income group (Vecchio et al., 2013).

The model of study is given below:

Logit model

$$(p) = \frac{1}{1-p} = b_0 + b_1(AGE) + b_2(ASQU) + b_3(GEN) + b_4(MAS) + b_5(EDU) + b_6(OCCU) + b_7(REG) + b_8(PRO) \quad (3.4)$$

Here p is the probability of existence of the property of interest. The logit conversion is defined as the logged odds:

$$logit(p) = \ln\left(\frac{p}{1-p}\right) \quad (3.5)$$

3.2.3 Estimation Technique

In this study binary logistic regression (BLR) technique is applied for an empirical analysis to analyze the impact of socioeconomic determinants on wage differential at workplace (Gujrati, 2009; Mincer, 1974; Sabir and Aftab, 2007). When there are more than two reaction variables Multinomial logistic regression (MLR) appropriate. The present study used binary logistic regression. This is a type of Generalized Linear Modeling (GZLM).

Asif and Pervaiz (2019) in their study used binary logistic regression and it is an appropriate regression technique when the dependent variable is binary. It is useful when linking one dichotomous and one or more nominal, ordinal, interval or ratio of independent variables. In binary regression technique, the variable for wage differential at workplace has been constructed by using information of PSLM data 2018-19. Ordinal logistic regression approach is used for the ordered data study. These techniques calculate the change in terms of odds ratios.

Logistic regression can be used only with two types of target variables:

i) A categorical outcome variable has exactly two categories (i.e. a binary or dichotomous variable).

ii) A continuous explained variable that has values in the rage 0.0 to 1.0 simply called probability values or proportions.

3.3 DATA SOURCE

The study has used secondary data from PSLM (Pakistan Living Standards Measurement Survey) 2018-19. The dataset is based on a sample of 24809 household respondents from rural and urban regions of all provinces in Pakistan. Objective of the PSLM data to generate provincial level household's income, health, education and population welfare data etc. The sample have taken from secondary data collected by using systematic sampling technique of 12 and 16 households which have been chosen from urban and rural region respectively. The Pakistan PSLM data provide the household lists which contained 8873 households from urban areas and 15936 rural households were selected using systematic sampling technique.

CHAPTER 4

RESULTS AND DISCUSSION

This part of the study has statistical description of different socioeconomic characteristics of male and female respondents and the empirical finding of the statistical analysis of wage differential due to personal, family and occupational attributes of the respondents at workplace in Pakistan. The study has also investigated the socioeconomic determinants of wage differential of male respondents at work place and the female respondents at work place as well.

Table 4.1
Socioeconomic Characteristics of Respondents

Dependent Variable		**Frequency**	**Percentage**
Monthly Income of Respondents	Less than 16000	841	4.4
	Above than and equal to 16000	18168	95.6
Independent Variable		**Frequency**	**Percentage**
Gender of respondent	Male	17042	89.6
	Female	1971	10.4
Marital Status	Unmarried	5448	28.7
	Married	13158	69.2
Education of Respondent	Primary	4851	25.5
	Secondary	11004	57.9
	Higher	3158	16.6
Occupational Attributes of Respondent	Managers	582	3.1
	Professionals	2365	12.4
	Technicians and Associate	1011	5.3
	Clerical Support Worker	741	3.9
	Service and Sales workers	4408	23.2
	Skilled Agricultural, forestry, fishery workers	194	1.0
	Craft and related trades workers	3397	17.9
	Plant and machine operators, and assemblers	2052	10.8
	Elementary occupations	4114	21.6
Place of Residence	Rural	9536	50.2
	Urban	9477	49.8
Region of Residence	Punjab	8891	46.8
	Khyber Pakhtunkhwa	3474	18.3
	Sindh	5098	26.8
	Baluchistan	1550	8.2

Source: PSLM 2018-19

Eighteen thousand one hundred and one male and female respondents included in this study. Table 4.1 shows the description of different socioeconomic characteristics of respondents. Monthly income of the respondents above than an equal 16000 is 95.6 percent whereas less than 16000 is 4.4 percent. Total 89.6 percent male respondents and 10.4 percent female respondents. Marital status shows that 28.7 percent are unmarried and 69.2 percent respondents are married. In education, 25.5 percent respondents are primary passed, 57.9 percent secondary passed and 16.6 percent higher educated respondents. In occupation 3.1 percent are mangers, 12.4 percent professionals, 5.3 technicians and associate, 3.9 percent clerical support employees, 23.3 percent services and workers, 1.0 percent skilled and agricultural, forestry and fishery labor, 17.9 percent craft and related trades staffs, 10.8 percent plant and machine machinists and assemblers and 21.8 percent elementary businesses. In place of resident 50.2 percent are resident of rural region and 49.8 percent are from the urban region. Whereas 46.8 percent from Punjab region, 18.3 percent from Khyber Pakhtunkhwa, 26.8 from Sindh and 8.2 percent from Baluchistan region.

Diagrammatic description of all socioeconomic determinants is given at appendix-A

Table 4.2
Socioeconomics Determinants of Wage Differential
(Among Males and Females)

Dependent Variable		**Reference**		
Monthly Income of Respondents	Less than 16000			
	Above than and equal to 16000			
Independent Variable		**Estimate (B)**	**Sig.**	**Odd Ratios (OR)**
Gender of respondent	Male	**Reference**		
	Female	-1.170	.000	.310
Age of Respondent		.230	.000	1.261
Age square		-.002	.000	.998
Marital Status	Married	**Reference**		
	Unmarried	.666	.000	1.947
Education of Respondent	Primary	**Reference**		
	Secondary	.753	.000	2.123
	Higher	2.239	.000	9.383
Occupational Status of Respondent	Managers	**Reference**		
	Professionals	-1.305	.000	.271
	Technicians and Associate	-1.372	.000	.254
	Clerical Support Worker	-2.854	.000	.058
	Service and Sales workers	-1.681	.000	1.86

	Skilled Agricultural, forestry, fishery workers	-2.095	.000	1.23
	Craft and related trades workers	-2.748	.000	.064
	Plant and machine operators, and assemblers	-3.288	.000	.037
	Elementary occupations	-3.738	.000	.024
Place of Residence	Rural	**Reference**		
	Urban	1.049	.000	2.855
Region of Residence	Punjab	**Reference**		
	Khyber Pakhtunkhwa	.077	.475	1.080
	Sindh	-.445	.000	.641
	Baluchistan	-.549	.002	.578
Constant	-8.292		.000	.000

The table 4.2 is comprised on empirical findings of socioeconomic determinants of wage differential at workplace for both males as well females. In this study we have used personal attributes, family attributes and occupational attributes of the respondents to check wage differential at workplace. Personal attributes include gender of the respondents, age, age square (experience) and education of the respondents. In family attributes include marital status and occupation comprised on different occupations managers, professionals, technicians, craft related etc., which are discussed below in detail. The results of binary logistics regression show that:

The results show that the gender of the respondents is an important determinant to measure wage differential at workplace. Male respondents are used as a reference category. Hence, it has concluded that female's earning per month is lesser as compared to male's respondents. In this study we have adjusted below 16000 as low income and above than and equal to as higher wage groups. The respondents earning 16000 and above than are coded as 1 and below 16000 are coded as 0. Income above than or equal to 16000 is used as a reference category.

If one-unit decrease in the gender of females' respondents the odds of monthly wage rises by a factor of .310 as compared to males at workplace in Pakistan. Previous studies are supporting the same results (Aslam and Kingdon, 2009; Irfan et al., 2013). Age is positively related with monthly wage of the respondents if age increases by one unit the odds of monthly wage of the respondent's increases by a factor of 1.261.

In previous studies (Fields and Wolff, 1995; Irfan et al., 2013) examined age impact is positive on income. In this study age square is used as an experience proxy. Aslam and Kingdon (2009) also used age square as an

experience proxy. Age square is negatively related with monthly wage of the respondents. If age square decline by one unit, the odds of monthly wage differential at workplace increases by a factor of .998. Hence it is concluded from results that the positive and negative effect of age squared means as respondents get elder the influence of age is negative. Educated people are the assets of any country. If people are more educated than they have more opportunities of jobs and promotion. In this study three different categories of education used to check wage differential at workplace if education increases than monthly wage of the respondent's increases. Those respondents who have passed primary education are used reference category in this study. If respondents have passed secondary education the odds of their monthly wages are higher by a factor of 2.123 as compared to primary passed respondents. Same as if respondents have passed higher education, includes MBBS, Engineers, Lawyers, MA, M. Phil, and B.Sc. etc., the odds of their monthly wages are higher by a factor of 9.383 as compared to primary passed respondents. It also supports the previous studies (Nasir, 2000; Hyder and Reilly 2005; Naheed et al., 2012).

It is also concluded from the logistic regression findings that people who are living in the urban areas are earning more because they have more opportunities compare to those who are living in the rural areas of the Pakistan. Mostly in the rural areas, people have less education and they have fewer opportunities to do work there. The results therefore show that the respondents who are living in urban areas their odds of monthly wage are higher by the factor of 2.855 as related to the respondents that are living in the rural areas. It also supports the previous studies (Nasir, 2000 and Aslam and Kingdon, 2009). Region of residence is also an important variable to check wage differential at workplace. In this study the province of Punjab is used as a reference category. The odds of Khyber Pakhtunkhaw region are higher by a factor of 1.080 and insignificant from those who are working in Punjab. While the odds of respondents from Sindh region of their monthly wages are less .641 from those respondents who are working in Punjab region. Same as if respondents are working in Baluchistan region the odds of their monthly wages are less by a factor of .578 as compared to the Punjab region. The region of residency is also an important determinant at workplace and also support previous studies with its positive (Naheed et al., 2012; Nasir 2000). Occupational attributes are also very important to distinguish the wage differential of the respondents. In present study nine different occupational categories are used to check the monthly wage differential at workplace in Pakistan. Respondents whose occupation is managers are used as a reference category in this study. Hence from study results it is proved true that respondents other than managers are earning less per month. Respondents whose occupation is professional related groups their odds of monthly wages

are less by a factor of .271 as compared to those who are managers. If respondents are technicians and associate their odds of monthly wages are less by a factor of .254 as compared to those respondents who are managers. If respondents are related clerical support worker occupations their odds of monthly wages are less by a factor of .058 as compared from mangers. Same if we discuss about services and sales worker their odds of monthly wages are less by a factor of 1.86 as compared to managers.

Skilled agriculture, fishery and forestry labors odds of their monthly wages are less by a factor of 1.23 as compared to the respondents who are managers. Craft and related trade worker's odds of their monthly wages are less by a factor of .064 as compared to the managers. Plant machine operators and assemblers' odds of their monthly wages are less by a factor of .037 compared to the managers. Elementary occupations respondent's odds of their monthly wages are less by a factor of .024 as compared to managers. In their study (Irfan et al., 2013; Nasir 2000; Aslam and Kingdon 2009; Hyder and Reilly, 2005) examined various occupational impact is positive on income.

In family attributes of the respondent is used just marital status. As we know if people are married, they earn less as compared to unmarried people because many other factors behind it. Correlating many growing countries, in Pakistan housework is considered the first exercise of married women. For example, there exists segregation of time allocation by sex. Men work for earning usually from outside while women have overlying household responsibilities (Khan and Khan, 2009). People have several responsibilities which affect their work at workplace then it affects their wages that is why the earn less.

Hence it is concluded that unmarried respondent's odds of their monthly wages are higher by a factor of 1.947 as compared to married respondents. Nasir (2000) in his study used marital status hence from study findings married people earn less income at workplace. Socioeconomics attributes are important to distinguish wage differential between males and females. But from study results proved that personal attributes are the main and important determinants to check wage differential at workplace.

Table 4.3
Socioeconomic Characteristics
(Male Respondents)

Dependent Variable		**Frequency**	**Percentage**
Monthly Income of Male	Less than 16000	567	3.3
	Above than and equal to 16000	16470	96.6
Independent Variable		**Frequency**	**Percentage**
Male respondents		17042	89.6
Marital Status	Unmarried	5432	31.9
	Married	11312	66.4
Education of Male	Primary	4270	25.1
	Secondary	9952	58.4
	Higher	2820	16.5
Occupational Attributes of Male	Managers	451	2.6
	Professionals	2079	12.2
	Technicians and Associate	877	5.1
	Clerical Support Worker	644	3.8
	Service and Sales workers	3841	22.5
	Skilled Agricultural, forestry, fishery workers	161	.9
	Craft and related trades workers	3150	18.5
	Plant and machine operators, and assemblers	1863	10.9
	Elementary occupations	3831	22.5
Place of Residence	Rural	8703	51.1
	Urban	9339	48.9
Region of Residence	Punjab	7707	45.2
	Khyber Pakhtunkhwa	3218	18.9
	Sindh	4644	27.3
	Baluchistan	1473	8.6

One thousand six hundred and ninety eight male respondents included in this study. Table 4.3 shows the description of different socioeconomic characteristics of respondents. Monthly income of the male respondents less than 16000 is 3.3 percent whereas above than and equal to 16000 is 96.6 percent. Marital status showed 31.9 percent unmarried and 66.4 percent male are married. In education of male 25.1 percent are primary passed, 58.4 percent secondary passed and 16.5 percent falls in higher educated male respondents. In occupation 2.6 percent are mangers, 12.2 percent professionals, 5.1 percent technicians and associate, 3.8 percent clerical support worker, 22.5 percent services and labors, 0.9 percent skilled and agricultural, forestry and fishery, 18.5 craft and related traders, 10.9 plant and machine mechanic, and assemblers and 22.5 elementary professional included. In place of residence 51.1 percent respondents from rural region and 48.9

percent from urban area. Whereas 45.2 percent of respondent's region of residence Punjab region, 18.9 percent from Khyber Pakhtunkhwa, 27.3 from Sindh and 8.6 percent from Baluchistan region etc.

Table 4.4
Socioeconomic Determinants of Wage Differential
(Among Males)

Dependent Variable		**Reference**		
Monthly Income of Respondents	Less than 16000			
	Above than and equal to 16000			
Independent Variable		**Estimate (B)**	**Sig.**	**Odd Ratio (OR)**
Age of Male		.236	.000	1.266
Age square		-.002	.000	.998
Marital Status	Unmarried	**Reference**		
	Married	-.606		.546
Education of Male	Primary	**Reference**		
	Secondary	-2.251	.000	.105
	Higher	-1.485	.000	.226
Occupational Status of Male	Managers	**Reference**		
	Professionals	3.729	.000	41.636
	Technicians and Associate	2.406	.000	11.084
	Clerical Support Worker	2.363	.000	10.623
	Service and Sales workers	8.86	.026	2.424
	Skilled Agricultural, forestry, fishery workers	2.058	.000	7.827
	Craft and related trades workers	1.643	.008	5.169
	Plant and machine operators, and assemblers	1.0118	.006	2.768
	Elementary occupations	.360	.404	1.433
Place of Residence	Rural	**Reference**		
	Urban	-1.013	.000	.363
Region of Residence	Punjab	**Reference**		
	Khyber Pakhtunkhwa	.546	.002	1.726
	Sindh	.575	.002	1.778
	Baluchistan	.092	.621	1.097
Constant	-9.807		.000	.000

In table 4.4 study discussed the impact of socioeconomic on wage differential among male's respondents at workplace. Socioeconomics determinant include personal attributes, family attributes and occupational attributes of the male's respondents. Age is the important determinant to check wage differential at work place. Male's age is positively related to the monthly wages of male respondents. If there is one-unit increase in the age of the male respondents, the odds of monthly wages increase by a factor of 1.266. But age square of male respondents is negatively connected with monthly wages of male respondents. If one-unit decline in square of age, the odds of the monthly wage increase by a factor of .998 at workplace.

Education is most important determinant to influence wage gap in this study education of males respondents are negatively related with the income of the male respondents. As we have discussed in the above table education is categories in three different groups. According to results if males have passed secondary and higher education their odds of monthly wages are less by a factor of .105 and .226 compared to male respondents who are primary passed. Results also revealed that male respondents living at urban areas their odds of monthly wages are higher by a factor of .363 as compared to the male respondents have rural place of residence.

Region of residence is also an important determinant to check the wage gap at workplace. Male respondents who belongs to region of Khyber Pakhtunkhaw, Sindh and Baluchistan their odds of monthly wages are higher respectively by a factor of 1.726, 1.778 and 1.097 compared to male respondent who are from Punjab region. Occupational attributes include different occupations of the male's respondents. In table 4.4 all occupations are taken same as above discussed but the difference is that males' respondents who belongs to mangers occupations their odds of monthly wages are less as compared to other occupations.

For example, if we discuss the results in detail, it is easy to understand that male's respondent's results are different from table 4.2. Professionals, technicians and associate, clerical support worker, sales, skilled agricultural, forestry and fishery staffs, service sales workforce and craft and related trades staffs, plant, machine operator and assemblers and elementary occupations. Their odds of monthly wages are less by a factor of 41. 636, 11.084, 10.623, 2. 424, 7. 827, 5.169, 2.768, 5.169, 2.768, 1. 433 as compared to male manager respondents. In family attributes marital status of the male's respondents status shows that if male's respondents are married their odds of monthly wages are less by a factor of .548 as compared to the unmarried male's respondents.

Table 4.5
Socioeconomic Characteristics
(Female Respondents)

Dependent Variable		**Frequency**	**Percentage**
Monthly Income of Female	Less than 16000	272	13.8
	Above than and equal to 16000	1698	86.2
Independent Variable		**Frequency**	**Percentage**
Female respondents		1971	10.4
Marital Status	Unmarried	16	.8
	Married	1846	93.7
Education of Female	Primary	581	29.5
	Secondary	1052	53.4
	Higher	338	17.1
Occupational Attributes of Female	Managers	131	6.6
	Professionals	286	14.5
	Technicians and Associate	134	6.8
	Clerical Support Worker	97	4.9
	Service and Sales workers	567	28.8
	Skilled Agricultural, forestry, fishery workers	33	1.7
	Craft and related trades workers	247	12.5
	Plant and machine operators, and assemblers	189	9.6
	Elementary occupations	283	14.4
Place of Female	Rural	833	42.3
	Urban	1138	57.3
Region of Residence	Punjab	1184	60.1
	Khyber Pakhtunkhwa	256	13.0
	Sindh	454	23.0
	Baluchistan	77	3.9

One thousand nine hundred and seventy-one male and female respondents included in this study. Table 4.5 shows the description of different socioeconomic characteristics of female respondents. Monthly income of the respondents less than 16000 is 13.8 percent whereas more than and equal to 16000 is 86.2 percent. Marital status showed 0.8 percent unmarried and 93.7 percent respondents are married. In education of respondents 29.5 percent are primary passed, 53.4 percent secondary passed and 17.1 percent higher educated respondents. In occupation 6.6 percent are mangers, 14.5 percent professionals, 6.8 percent technicians and associate, 4.9 percent clerical support worker, 28.8 percent services and workers, 1.7 percent skilled and agricultural, forestry and fishery workers, 12.5 percent craft and related trades workers, 9.6 percent plant and machine operators, and assemblers and 14.4

percent elementary occupations. In place of residence 42.3 percent respondents from rural region and 57.3 percent from urban region. Whereas 60.1 percent from Punjab region, 13.0 percent from Khyber Pakhtunkhwa, 23.0 from Sindh and 3.9 percent from Baluchistan region.

Table 4.6
Socioeconomic Determinants of Wage Differential
(Among Females)

Dependent Variable		**Reference**		
Monthly Income of Respondents	Less than 16000			
	Above than and equal to 16000			
Independent Variable		**Estimate (B)**	**Sig.**	**Odd Ratio (OR)**
Age of Female		.232	.000	1.261
Age square		-.002	.000	.998
Marital Status	Unmarried	**Reference**		
	Married	.666	.000	1.947
Education of Female	Primary	**Reference**		
	Secondary	.753	.000	2.123
	Higher	2.239	.000	9.383
Occupational Status of Female	Managers	**Reference**		
	Professionals	-1.305	.000	.271
	Technicians and Associate	-1.372	.000	.254
	Clerical Support Worker	-2.854	.000	.058
	Service and Sales workers	-1.681	.000	.186
	Skilled Agricultural, forestry, fishery workers	-2.095	.000	.123
	Craft and related trades workers	-2.748	.000	.064
	Plant and machine operators, and assemblers	-3.288	.000	.037
	Elementary occupations	-3.738	.000	.024
Place of Residence	Rural	**Reference**		
	Urban	1.049	.000	2.855
Region of Residence	Punjab	**Reference**		
	Khyber Pakhtunkhwa	.077	.475	1.080
	Sindh	-.445	.000	.641
	Baluchistan	-.549	.002	.578
Constant		-9.462	.000	.000

The findings among female respondents at workplace are given in table 4.6. The socioeconomic determinants comprised on the same attributes such as age, age square, gender, marital status, education, occupation, place of

residence and region of residence, which have already been used in tables 4.2 and 4.4. Age is found an important determinant of wage differential at work place. Female age is positively related to the monthly wages of the female respondents. The likely hood to fall in higher wage increases by odds of 1.261 with an increase in the age of the female respondents at workplace. These findings are in line with Asif and Pervaiz (2019); Riaz and Pervaiz (2018), as they concluded that women's age has positive impact on women income. However, age square of female's respondents is negatively related with monthly wages of female respondents. The probability to increase in monthly wage at workplace falls with the increase in age square of the female respondents.

Education is also very important determinant to check wage gap. Female respondent's education is positively related with the monthly wages of the females' respondents. Education is categories in three different groups and findings reveal that female with secondary and higher education have higher odds of monthly wages by a factor of 2.123 and 9.383 as compared to the female respondents who have primary education. As per findings the female respondents who are living in urban areas have higher odds of monthly wage by a factor of 2.855 as compared to the rural residential females. Region also plays a role in determining wage differential at workplace. Female respondents belong to Khyber Pakhtunkhaw region, odds of their monthly wages are lesser by a factor of 1.080 as compared to the female's respondents that are from Punjab region. Respectively female respondents who belong to region of Sindh and Baluchistan their monthly wages are less by a factor of .641, and .578 as compared to the female's respondents that are from Punjab region.

Similarly, the occupational attributes have an impact on wage differential at workplace for female respondents. Though the findings of female respondents are quite different from the male respondents. In case of females, the odds of monthly earning of Professionals .271, technicians and associate .254, clerical support worker .058, service and sales workers .186, skilled agricultural .123 etc., are higher as compared to manger females. Similarly marital status in family attribute shows that if female respondents are married their odds of monthly wages are higher by a factor of 1.947 as compared to the unmarried females. The probability of married respondents to fall in higher wage at work place is more compare to unmarried respondents.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

The study runs three regressions and has concluded three different results. First one is the impact of socioeconomic determinants on wage differential at workplace among males and females, second is the impact of socioeconomic determinants on wage differential at workplace among males and last one is the impact of socioeconomic determinants on wage differential at workplace among females. Group wise conclusion is discussed below:

5.2 AMONG MALE AND FEMALE

This study has empirically investigated socioeconomic determinants of wage differential at workplace in Pakistan. Socioeconomic determinants have been categorized into personal, family and occupational attributes. Personal attributes include gender of respondents, age, age square, education, place of residence and region of residence of the respondents, family attributes cover marital status of the respondents and occupational attributes comprised on different occupations such as, managers, professionals, technicians and associates, clerical support worker, service and sales workers, skilled agricultural, forestry and fishery workers, craft and related trades workers, elementary occupations plant and machine operators and assemblers.

Results of joint analysis of male and female reveal that female's respondents are more likely to have wage differential at work place as compared to male respondents. Unmarried respondents are more likely to face wage differential at the workplace as compared to married respondents. Primary educated respondents are more probable to have wage differential at the workplace than secondary and higher educated respondents. Respondents with higher education are less probable to have wage differential and there is a persistent decrease in wage differential as respondent's education level increases. Occupation is another determinant to check wage differential among male and female respondents at the workplace. Professionals, technicians and associate workers are subject to wage differential than other occupations. Managers are earning higher wages compared to all other occupations used in this study.

Similarly place of residence and region of residence are also important determinants to check wage differential. The respondents, who are from urban areas and from Punjab region faced less wage differential as compared to those respondents who are from rural areas and residing in Khyber Pakhtunkhwa, Sindh and Baluchistan. The study concludes that the respondents from Sindh region are suffering higher wage differential than other regions. All determinants have their own impact on wage differential at work place but in joint analysis of male and female respondents, females, less educated, rural respondents residing in Sindh region and occupations other than manager are the suffering more of wage differential at workplace.

5.3 AMONG MALE RESPONDENTS

Results reveal that some males are also subject of wage differential. Wage differential not purely the gender phenomena it also purists among males. Married males are more likely to face wage differential at work place as compared to unmarried male. Males having primary education are less probable to have wage differential than secondary and higher educated male. Males with higher education are more probable to have wage differential but there is persistent increase in wage differential as male's education increases.

Males, working as manager are facing more wage differential at workplace as compared to other occupations. Service and sales workers are facing lower wage differential then all other occupations discussed in this study. Place of residence and region of residence also determinants to check wage difference, male who are from urban areas are facing more wage differential at workplace as compared to those, who are from rural areas. The male residents from Punjab region faced less wage differential as compared to males from region Khyber Pakhtunkhwa, Sindh and Baluchistan. Amon male respondents, Sindh region's residents are facing less wage differential then Khyber Pakhtunkhwa and Baluchistan. All determinants have their own impact on wage differential at the workplace but among male respondents, findings reveal that personal attributes like education, place of residence and family attributes like marital status are the major factors causing wage differential at the workplace.

5.4 AMONG FEMALE RESPONDENTS

Results reveal that wage differential also prevails among female respondents and they are facing wage differential at workplace. Findings

reveal that though wage differential among females, compare to male is lesser but it exists in female respondents. Married females are more likely to face wage differential at work place as compared to unmarried females. Primary educated females are less probable to have wage differential at work place than secondary and higher educated females. Females with higher education are more probable to have wage differential but there is persistent increase in wage differential as female's education increases.

Females who are working at managerial related occupations are facing less wage differential at workplace as compared to professional, technicians and associate, clerical support worker, craft and related trades workers, elementary occupation, service and sales workers, skilled agricultural, forestry, fishery workers, plant and machine operators and assemblers. Place of residence and region of residence are also important determinants to check wage differential among females. The females from urban areas are facing more wage differential at work place as compared to those females who are from rural areas. Females residing in the region Khyber Pakhtunkaw are facing lesser wage differential as compared to those females who are from the region of Punjab. Females from the region of Sindh and Baluchistan are facing more wage differential as compared to Punjab region. All determinants have their own impact on wage differential at work place but study concludes that among female the personal attributes like education, place of residence and family attributes like marital status are main components which are creating wage differential at workplace.

5.5 RECOMMENDATIONS

Findings revels that, female's respondents are more probable to have wage differential at workplace as compared to male's respondents. Educated females are less likely to experience wage differential at workplace as compared to uneducated or less educated females. The finding supports the policy recommendation to provide educational opportunities to females to combat wage differential at the workplace. The well aware educated females may play a dual role in the society. On one hand educated females have higher skills and knowledge that is why they have less chances to face wage differential at workplace. On another hand, educated women can effectively participate to support their family. There is a need to invest more on female education.

However, in contrary educated males of the urban area are earning lower wages compare to less-educated males of rural areas. It brings attention to the problem that the supply of highly educated male workers in urban areas may

be more than its demand compare to rural areas. It is, therefore recommended to improve the infrastructure of rural areas to restrict the excessive burden of the workforce in urban areas. It is also recommended here to absorb the workforce that the education should be in line with the job requirements.

The region of residence role in wage differential at the workplace is quite consistent in all regressions either joint male and female or it may be separate for male-only as well as for female-only. The region of Baluchistan is the most likely to face wage differential at the workplace. While residents of the Sindh region are the next, effected respondents of wage differential at the workplace. It is, therefore recommended that the national and provincial public policies should focused for the uplift of the respective regions.

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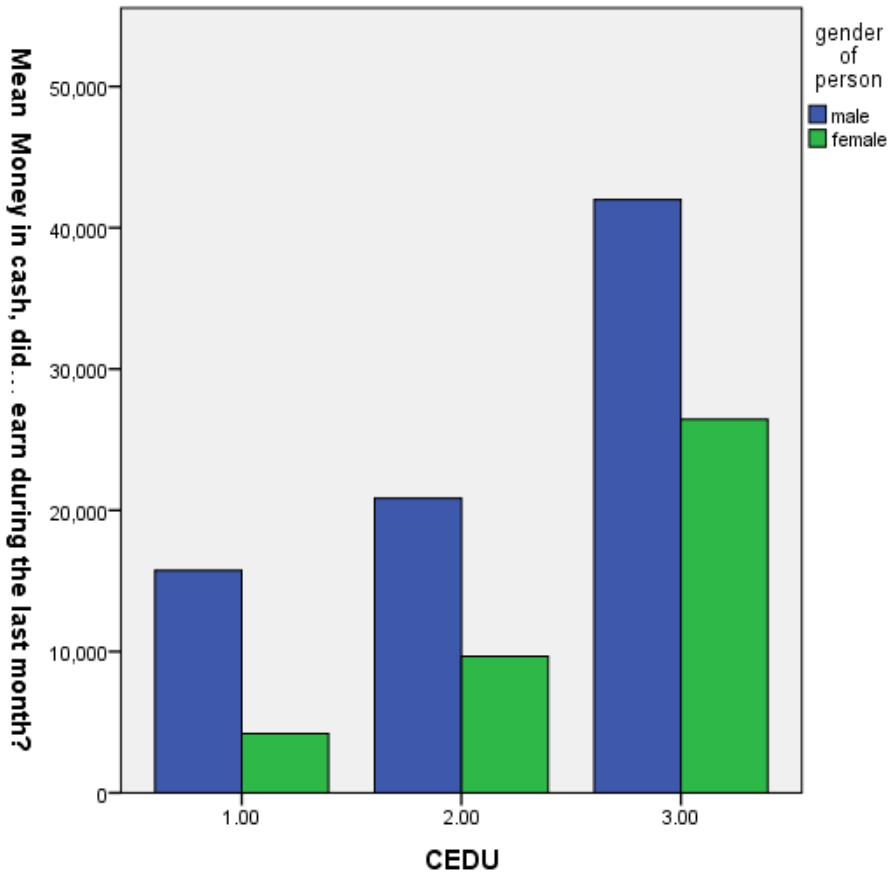
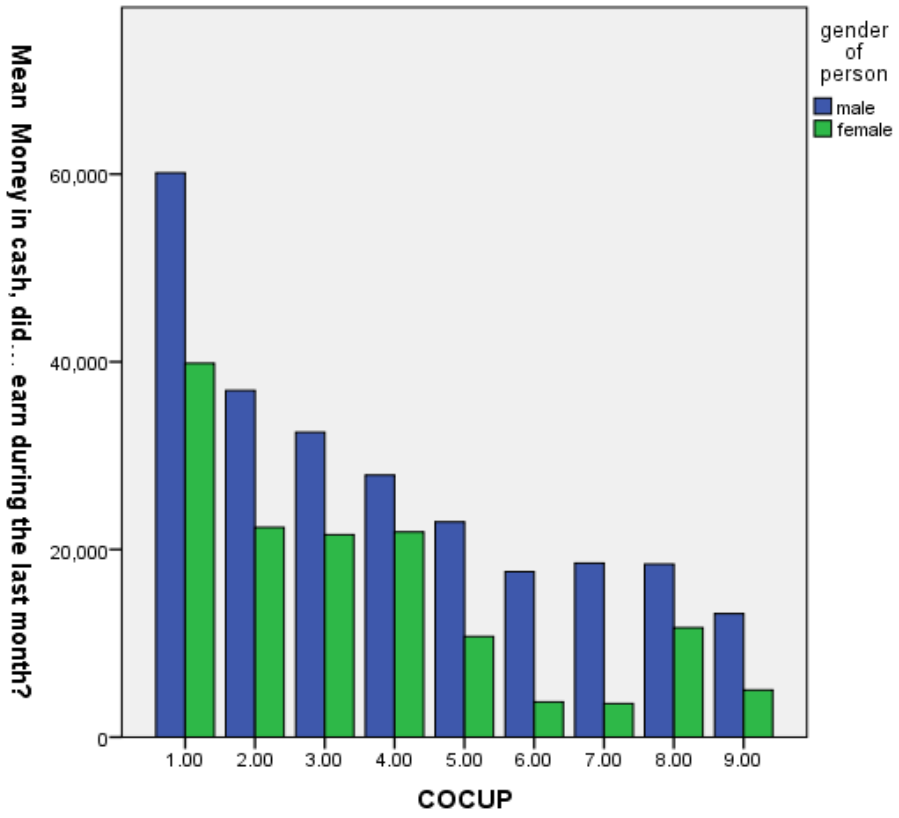
APPENDIX

A-1 Monthly Wage of Respondentes Related Different Educational Gropus



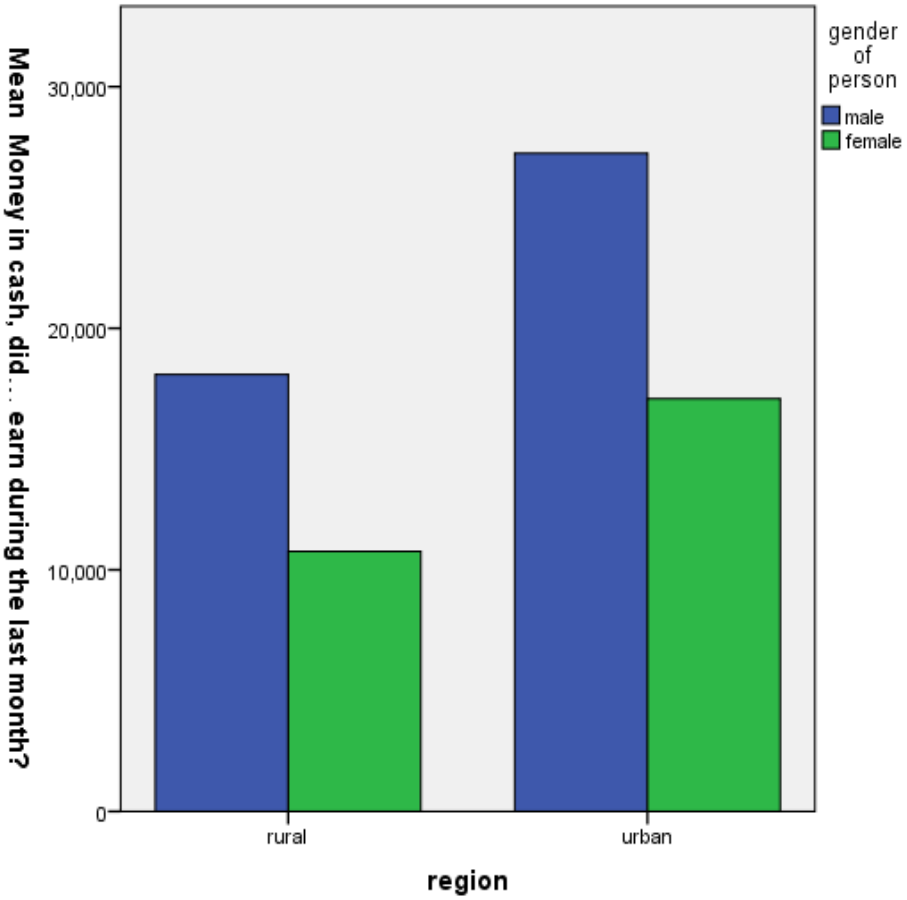
In appendix-1 taken monthly wages of the male's and female's respondents and education of the respondents. Education are categories in three different groups: 1 is equal to primary passed, 2 is equal to to secondary passed and 3 is equal to higher educated respondents. Blue block is respresenting male's education data and green block is for femals.

A-2 Monthly Wage of Respondentes Related Different Occupations



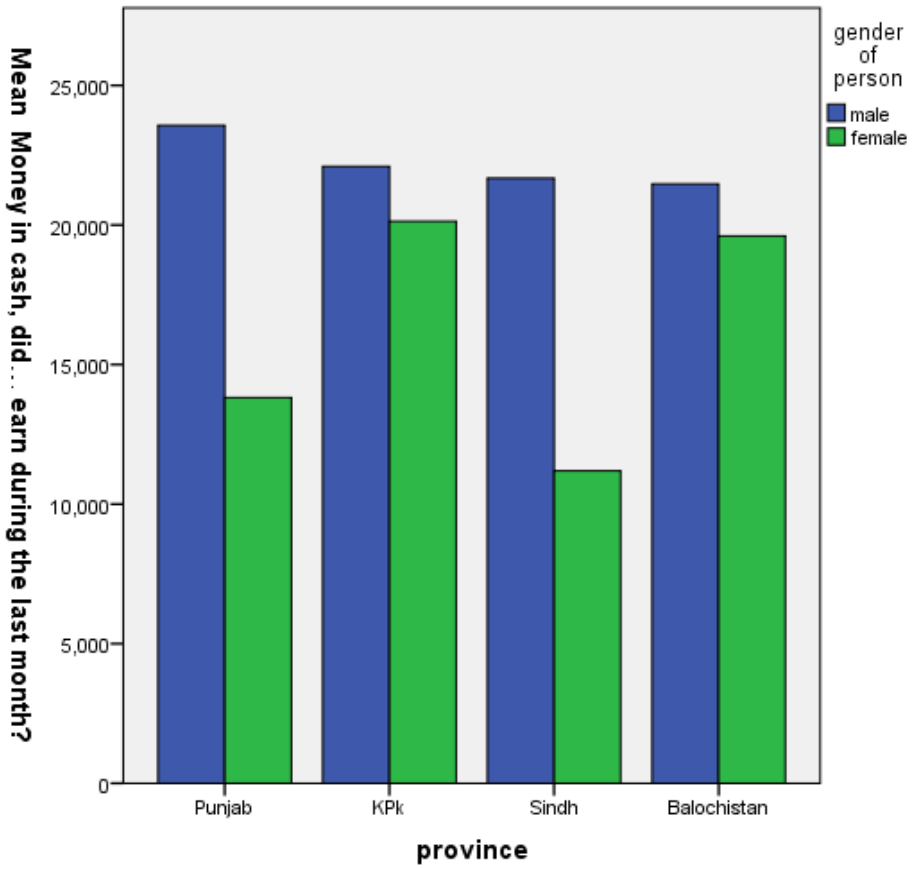
In A-2 taken monthly wage of the respondents those are wage employed and taken different occupations of the male's and female's.Occupations are categories in nine different categories such as 1 is equal to managers, 2 is equal to technicians and associate, 3 is equal to professionals, 4 is equal to service and sales workers, 5 is equal to clerical support worker, 6 is equal to skilled agricultural, 7 is equal to forestry and fishery workers, 8 is equal to craft, plant and related trades workers, 9 is for elementary occupations, machine operator and assembler. Same as above blue block is for male's respondents and green for females.

A-3 Monthly Wage of Respondentes Related Place of Residence



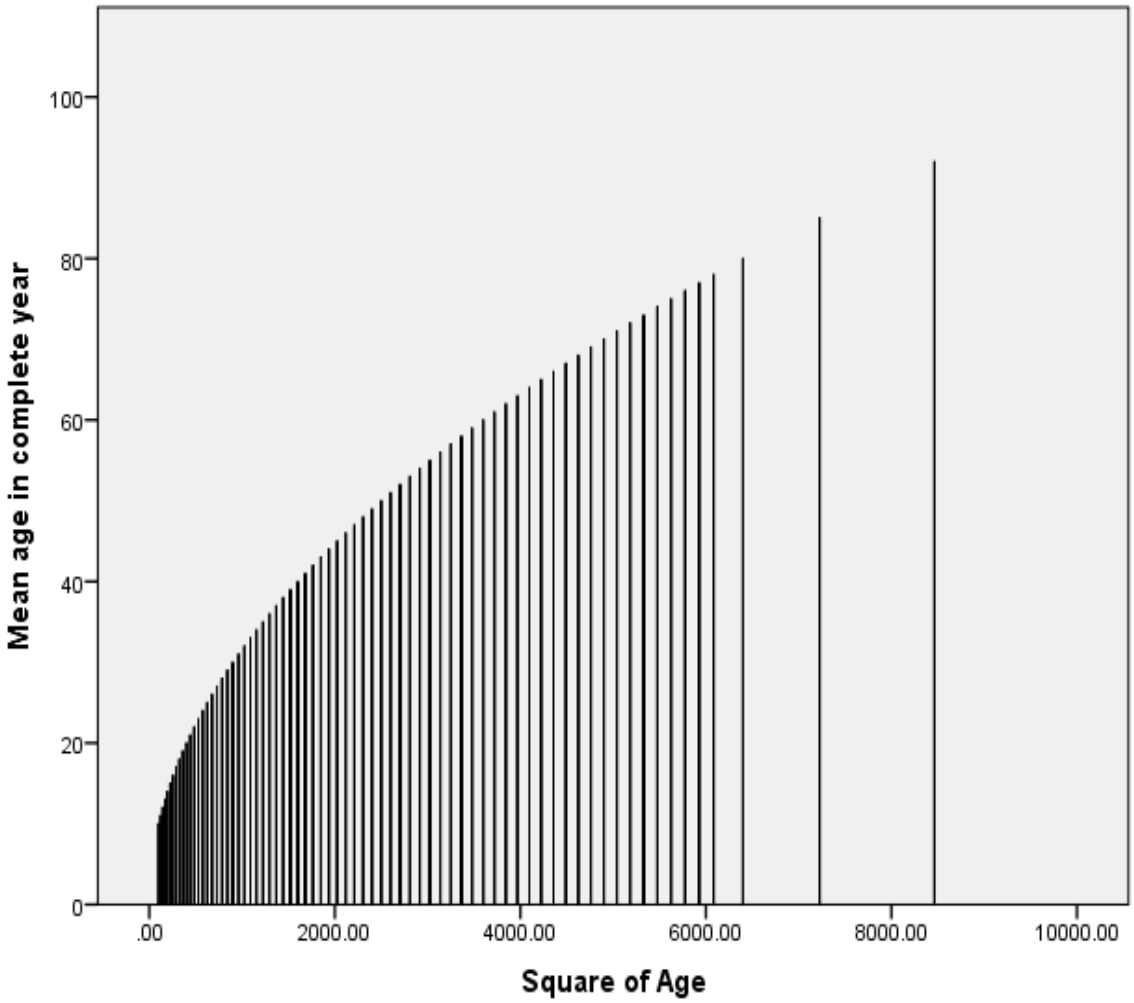
In A-3 taken monthly wage of the respondents those are wage employed and place of residence of the male's and female's respondents.

A-4 Monthly Wage of Respondentes Related Region of Residence



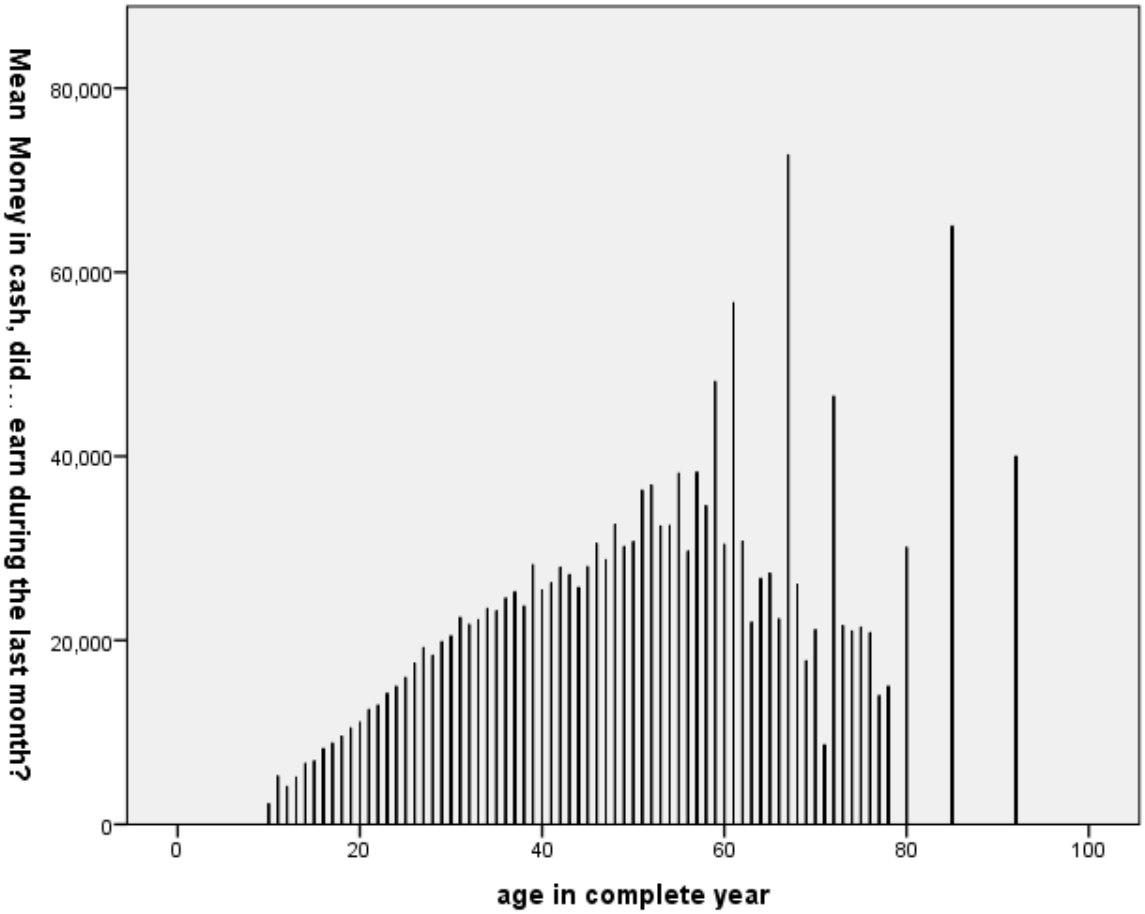
In A-4 taken monthly wage of the respondents those are wage employed and taken region of residence of the respondents male's and female's. Present study analyze wage differntial at workplace in Pakistan between male's and femal's respondents that is why we have chosed four provincial data to diffrentiate the wage differntial at workplace in cash holding wage earners.

A-5 Impact of Respondent's Age on Experience



In A-5 have taken mothly wage of the respondents and experience of the respondents it is clear from A-5 if age increases then square of age (experience) of the people increases.

A-6 Impact of Monthly Wage of Respondentes on Age



A-5 have taken mothly wage of the respondents and age of the respondents. If age increses then wage increases because due to increase in age experience of the people increses. So it proved to be true from data