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Impact of Human and Social Capital on Women's earning: Implications for Home Based and Outdoor Workers

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ABSTRACT

The objective of this study is to explore the effect of human and social capital on women's earning. The cross-sectional data was collected from 1227 working women both home based and outdoor, residing in urban and rural areas of Multan Division (Pakistan). The extended form of Mincerian earning function was estimated for home based and outdoor workers and results indicates that the coefficient of age, education, training, presence of basic health unit, education of closed relatives, strong family ties and formal ties have significant positive influence on earnings. While the coefficient of presence of disease and distance is negative. For procurement of raw material, the role of middleman is insignificant, has no effect on women's earnings. Moreover, the coefficients of head of household, ownership of assets, number of children, number of dependents, location, marital status, family setup and awareness about labor laws positively related with earnings. Women who are more satisfied with their work are more likely to work overtime for more earnings. It is recommended that human capital be prioritized by investing additional resources in health care, improving access to higher education and provision of free technical and vocational trainings specifically for home based workers to improve earnings which reduce poverty and put the economy on a path of increased growth and development.

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1. Introduction

Economic participation of women is a much debatable subject among economists and researchers. Women being half of the Pakistan's population, can significantly contribute to the country's socio-economic development. They have the potential to navigate a dual responsibility, balancing work both inside and outside their homes. Women in Pakistan's labor force play different tasks, including that of mother, wife in the household as well as income earner and contributing in the formal and informal sectors. Due to the rise of decentralized production methods and effects of globalization, working from home has increasingly become an important element of the informal economy (Hassan & Azman, 2014). Like formal sector, the informal sector also faces a range of challenges, including low pay, unhealthy workplace conditions and women often working from small spaces within their own homes. In Pakistan, the precise number of home based workers is unknown and is typically exhibited by estimates from the informal sector. It is estimated that more than 50 % of women are employed in the informal sector and among them 83% are home based workers (Home Net Pakistan, 2005). On the demand side, the market for home based workers is expanding as local and foreign firms seek low cost inputs. On the supply side, poverty is recognized as the main driver motivating individual to participate in home based work. Empirical studies indicates that uneducated workers with strict social and

cultural constraints do participate more in home based work (e.g., (Kumar & Mishra, 2019; Meidika et al., 2019).

Despite their great contribution to the national economy, the role of these women in Pakistan remains unacknowledged, leaving them without protection regarding wages and working conditions. In addition to the problems arising from legislative deficiencies, these women are mostly subcontracted and get work from middleman. The middleman often exploits the women home based workers by providing low quality raw materials and offering low wages for their labor. Their income is insufficient to lessen the extent of their poverty, and the entrepreneurs are taking advantage of them (Chen, 2014; Edwards & Field-Hendrey, 2002). According to Edwards and Field-Hendrey (2002), women who work from home receive lower wage offers and have lower reservation wages as compared to those who work outdoor. Outdoor workers are those who are engaged in any occupation outside their home. The earnings of women is immensely important as they directly impact the foundations of human welfare (Qadir & Afzal, 2024). Knowledge of the determinants of earnings helps the policymakers to devise policies that enhance wealth, reduce poverty and ultimately promote economic growth and development (Polachek, 2008). So, there is a dire need to recognize the great contribution of home based workers to country's economy and to enrich their capability to increase their earnings and improve their quality of life.

The aim of this study is to explore the factors that effect the earnings of women working both from home and outside the home. The key factors include, (a) human capital with respect to education, training and health, (b) social capital with respect to strong family ties and formal ties, (c) role of middleman in the procurement of raw materials, (d) family characteristics with respect to head of household, number of children, number of dependents and ownership of assets, (e) work characteristics with respect to overtime work and job satisfaction, (f) awareness of labor laws and (g) demographic variables with respect to age, location, marital status, family setup and distance. The Mincerian earning function is used to estimate the earnings of home based and outdoor workers separately in Multan Division. This paper has five sections. First section is of introduction. Literature review is discussed in the second section. In Section 3 data and methodology of the research is given. Section 4 is about results and discussion, explains the empirical findings of Mincerian earning functions. Conclusions and policy recommendations are given in the last section.

2. Review of Literature

This study has two basic theoretical foundations. The first is Human Capital Theory, which in its simplest form posits that a person's wages or earnings are directly linked to their skill levels, including but not limited to, education, experience and inherent ability (Becker, 1965). The second foundation of the study is that Human Capital theory in fact builds on the Mincer Equation, which asserts that income is influenced by both education and experience (Mincer & Polachek, 1974). Moreover, the existing research indicates that women home based workers in Pakistan face exploitation. For instance, middlemen often retain most of the profit from selling the products produced by these women as they are unable to leave their homes for work (Roots for Equity, 2011).

Qadir and Afzal (2024) investigated the effect of institutional factors on earnings of working women in Khyber Pakhtunkhwa (KP). The primary data is collected from 789 respondents across ten randomly selected districts of the Khyber Pakhtunkhwa. The Ordinary Least Squares (OLS) method was employed and concluded that the coefficients of education and experience are significantly positive indicating that educated and experienced women increase the earnings of working women. Additionally, employees in the public sector earns more than private sector employees. However, factors such as job status, job satisfaction and harassment showed an insignificant influence on women's earnings. Future research is recommended to explore these findings further, particularly to understand why job satisfaction appears to have little potential for generating a high wage premium.

Akhtar, Iqbal and Bakhsh (2020) investigated the effect of numerous factors on income of rural women in Faisalabad. A stratified sampling technique is used to collect the data from 150 respondents. It is concluded that the age, education, family size, working hours and satisfaction positively and significantly influence the women's income. While motivation of the respondents

has an insignificance effect on income. The study recommends that the government should focus on providing education for females particularly in rural areas.

Mahmood (2019) inspected the dynamics of monthly income in urban informal sector of Multan district. The study used the primary data collected through field survey from 200 individuals who were involved in urban informal sector. The OLS method was applied and found that age, education, hours of work duration, and experience have significant and positive influence on monthly income. The study found no effect from work shifts and annual pay rise, while, the impact of family size showed mixed results. Moreover, marital status, nature of work, and road conditions to work are significant factors positively affecting the monthly income. The study recommended to make investments in urban informal sector to enhance job opportunities and increase earnings for workers in that sector.

Qadir, Tariq and Jehangir (2018) have explored the social and economic factors that influence the earnings of working women in education department of Peshawar, Khyber Pakhtunkhwa. The primary data was collected from 126 working females through a structured questionnaire. Multinomial logistic regression technique has been used and concluded that education, experience, family income, and locality of job locality positively relate to women's earnings, while marital status had an insignificant impact. Tõnurist and Pavlopoulos (2016) have examined the impact of institutional factors on wage differences between part-time and full-time workers in Germany. Using data from the German Socio-Economic Panel (SOEP) spanning 1991-2008, they concluded that part-time workers receive lower returns at the lower end of the wage distribution, highlighting labor market segmentation. At the top of the wage distribution, the part-time wage gap is attributed to difference in worker characteristics, while at the bottom, the wage gap is primarily driven by variations in the returns to socio-economic characteristics.

Another study conducted by Khan and Idrees (2014) examined the factors that influence the differences in earnings of individuals across district of Pakistan. The Household Integrated Economic Survey (HIES) is used for data for the year 2010-11. The study employed OLS method for estimation and revealed that efficient age group (29-59 years), dependency ratio and education positively influence the earnings of individuals while the proportion of female earners had negative effect on average earnings. It was also found that one percentage increase in income inequality raise the average earnings by 1.28 percent implying that income inequality have a positive influence on average earnings. Moreover, socio-development factors such as infrastructure, health units and provincial capital had a promising influence on the average earnings of individuals while the impact of terrorist attacks on average earnings was negative (Ahmed, Azhar, & Mohammad; Dler M Ahmed, Z Azhar, & Aram J Mohammad, 2024; Dler Mousa Ahmed, Zubir Azhar, & Aram Jawhar Mohammad, 2024; Mohammad, 2015a, 2015b; Mohammad & Ahmed, 2017).

Gillani and Ali (2013) investigated various factors influencing the earning of self-employed, wage earners, traders, service providers and manufacturer in Southern Punjab, Pakistan. The primary data of 3,000 workers from urban informal sector was collected from Multan, Bahawalpur and Dera Ghazi Khan, three divisions of South Punjab.. The study used the OLS method and concluded that one more year of education and experience increase the earning of workers engaged in all activities. But for self-employed workers an increase in one year of education improves the earnings by 0.02 percent. The coefficient of marital status and weekly work hours positively and significantly influence the earnings for both self-employed and wage earners, the whole sample. The study suggested to make more investments in graduation level education as results revealed highest reward for workers having graduation.

Gillani and Karamat (2013) examined the influence of human capital variables on earnings of women in urban informal sector. The primary data is collected from 325 respondents through field survey conducted in urban areas of Multan district in 2012. The study used the OLS method to estimate the Mincerian's earning function and concluded that education is crucial for participants of informal sector workers to boost up their earnings. It is also found that age, education training, sex, marital status, value of household assets and hours of work positively and significantly influence the earnings of urban informal sector workers.

There is a gap in literature concerning Pakistan. Even though several qualitative studies address this topic, most of them focus on gender wage gap and do not specifically examine why women home based workers earn differently from outdoor workers in Multan Division. Only a few researchers have estimated the earning functions for home based workers and investigated the reasons of earning differences among home based and outdoor workers. Empirical studies do not analyze in detail the relationship between earnings and home based workers. This study aims to quantify this relationship by incorporating human capital, social capital, role of middle man with other most frequently used variables.

3. Data and Methodology

3.1. Data Sources

This study used the cross-sectional data, collected from Multan Division, which features a mix of rural and urban areas. The targrt population comprised of working women both who work from home and outside the home, aged 15 years and above. A purposive sampling technique was employed to collect data from 1227 working women, comprising 607 home based workers and 620 outdoor workers. Required information from the respondent is obtained through questionnaire and it is consisted of questions which are based on multiple choices and open ended. In addition to the questionnaire, specific interviews were conducted either at the respondent's home or at their work places.

3.2. Methodology

The Ordinary Least Squares method is applied to estimate the earning function for both home based and outdoor workers. The statistical earning function described by Mincer and Polachek (1974) is used which is augmented by other important variables that affect the women's earnings. The earning function is written as:

$$\ln(W_i) = \beta_0 + \sum_{j=i}^{k} \beta_k X_{ki} + u_i$$

Where, $\ln(W_i)$ is a natural log of earnings of the *i*th individual, X_{ki} is the explanatory variable and u_i is a random disturbance term.

3.3. Model Specification

To investigate the impact of numerous human capital, socio-economic and demographic variables on women's earnings, two separate models are estimated: one for home based workers and another for outdoor worker, In the first model for home based workers (HBWs), earnings are influenced by human capital variables, role of middleman, family characteristics and demographic variables.

$$LNFEIHBWs = \alpha + \beta 1PRM + \beta 2MDL + \beta 3MAT + \beta 4INT + \beta 5GRD + \beta 6BHU + \beta 7DISE + \beta 8OWN + \beta 9HHM + \beta 10MDM + \beta 11HOH + \beta 12ASST + \beta 13LBL + \beta 14AGE + \beta 15AGE2 + \beta 16LCN + \beta 17MRS \quad (1)$$

The second model includes presence of closed relatives education, social capital, work characteristics and occupations while all other variables are same as used in Model 1. This model includes experience and experienced-squared in place of age and age-squared. Here education is taken in completed years instead of various education categories.

$$LNFEIHBWs = \alpha + \beta 1EDU + \beta 2EXPR + \beta 3EXPR2 + \beta 4TRAN + \beta 5EDF + \beta 6EDH + \beta 7STRT + \beta 8FORT + \beta 9NCH + \beta 10NDP + \beta 11ASST + \beta 12OVTW + \beta 13WRKS + \beta 14STCH + \beta 15POTR + \beta 16HNDC + \beta 17LTHR + \beta 18FOOD + \beta 19FSP + \beta 20DIST \quad (2)$$

To estimate the earning function for outdoor workers (ODWs), following two models are estimated.

$$LNFEIODWs = \alpha + \beta 1PRM + \beta 2MDL + \beta 3MAT + \beta 4INT + \beta 5GRD + \beta 6MST + \beta 7HRE + \beta 8BHU + \beta 9DISE + \beta 10HOH + \beta 11ASST + \beta 12LBL + \beta 13AGE + \beta 14AGE2 + \beta 15MRS \quad (1')$$

$$LNFEIODWs = \alpha + \beta 1EDU + \beta 2EXPR + \beta 3EXPR2 + \beta 4TRAN + \beta 5EDF + \beta 6EDH + \beta 7STRT + \beta 8FORT + \beta 9NCH + \beta 10NDP + \beta 11ASST + \beta 12OVTW + \beta 13WRKS + \beta 14TCH + \beta 15MED + \beta 16BNK + \beta 17ENG + \beta 18MKT + \beta 19CMO + \beta 20OTHR + \beta 21FSP + \beta 22DIST \quad (2')$$

4. Results and Discussion

4.1. Descriptive Analysis

The cross-sectional data from 1127 working women has been collected from Multan division. From 1227 working women, 607 (49 percent) are engaged in home based work while 620 (51 percent) are doing outdoor work. The description and frequency of key variables used in the models are given in Table 1. The position of outdoor worker (ODWs) is better than the position of home based women workers (HBWs) with respect to education level as 58.63 percent of the ODWs are literate as compared to 41.37 percent of the HBWs. Home based workers are highly graduated (5.11 %) and 7.84 % outdoor workers received higher education. The table shows that 57.50 percent home based workers while 56.94 percent outdoor workers received training for the work they are presently engaged in. The distribution of women home based and outdoor workers with respect to head of household shows that 19.43 percent HBWs are head of household while 15.96 percent ODWs are household head. Women are engaged in home based work own 45.79 % assets while outdoor workers own 48.87 % assets. About half of the participants are aware of the labor laws and the awareness between the HBW is 40.03 percent and ODW is 54.84 percent. HBWs who belongs to urban areas are 36.24% and while the percentage of outdoor workers are 60.32. 51.47 percent HBWs and 58.55 percent ODWs are living in joint family system.

Table 1: Descriptive statistics of Explanatory Variables

Description of variables		Home Based Worker Frequency/ Percentage	Outdoor Worker Frequency/ Percentage
Education in Completed years	EDU	333 (41.37%)	472 (58.63%)
Primary	PRM	154 (46.25%)	29 (6.14%)
Middle	MDL	80(24.02%)	41(8.69%)
Matric	MAT	45(13.51%)	65(13.77%)
Intermediate	INT	37(11.11%)	84(17.80%)
Graduation	GRD	17(5.11%)	99(20.97%)
Masters	MST	-	117(24.79%)
Higher Education	HRE	-	37(7.84%)
Training	TRAN	349(57.50%)	353 (56.94%)
Presence of Basic Health unit	BHU	381(62.76%)	349(56.29%)
Presence of disease	DISE	258(42.50%)	140(22.58%)
Strong Family Ties	STRT	420(69.19%)	400(64.51%)
Formal Ties	FORT	334(55.02%)	367(59.19%)
Head of Household	HOH	118(19.43%)	99(15.96%)
Ownership of assets	ASST	278(45.79%)	303(48.87%)
Overtime work	OVTW	233(38.38)	229(36.93%)
Worker satisfaction	WRKS	259(42.66%)	341(55%)
Labor Laws	LBL	243(40.03%)	340(54.84%)
Location (Urban area)	LCN	220(36.24%)	374(60.32%)
Marital Status (married)	MRS	369(60.79%)	361(58.22%)
Family setup (Joint family)	FSP	313(51.57%)	363(58.55%)

Source: Author's Calculations based on Survey data

4.2. Econometric Analysis

Table 2 presents the log-linear estimates of earning function for women who work from home and those who work outdoor. The R^2 values are 0.59 for home based worker and 0.57 for outdoor worker, indicates that the explanatory variables accounts for 59 percent of the variation in monthly earnings of women home based workers while for outdoor worker the variation is 57 percent. The F-statistic shows that the variables incorporated in the models are suitable so the model is overall good. The intercept term is quite significant in both models. Statistical significance at 1%, 5% and 10% levels are denoted by *, ** and *** respectively.

Women's education is a key determinant of their earnings and significantly contributes to human capital formation. The model incorporates various levels of education and indicates that earnings of women home based and outdoor workers increases as education level improves. Home based workers are highly graduated and earn 42.9 percent more as compared to uneducated women with an additional year of education. While for outdoor workers earnings are highest (149.1 percent) for higher level of education in comparison to uneducated women. All educational dummies are highly significant. Higher education improves the skills and the possibility for obtaining a better paid job with higher incomes. The more educated women receives higher return in the informal sector because subcontractors prefer to hire educated workers. This preference stems from the ease of communicating job specifications and quality expectations to those with higher education. Similar findings are presented by Akhtar, Iqbal and Bakhsh (2020); Mincer and Polachek (1974); Qadir and Afzal (2024); Zahir Faridi and Rashid (2014). Basic health units are the prime source of health facilities in the rural as well as in the urban areas. The coefficient of basic health unit (BHU) is positive and significant, indicates that the earnings of women home based workers increase by 5 percent and outdoor workers increases by 7.6 percent with an additional basic health unit in locality. Because it improves the health and physical capacity of workers by regular visit to health units so they are more able to participate actively in labor market which in turn improves their earnings. Similar results are found by Khan and Idrees (2014); Umoru and Yaqub (1987). The negative coefficient of DISE has found, suggests that in the presence of disease earnings of home based and outdoor workers decrease by 12.5 percent and 10.6 percent with an additional women having any disease. Because the working capacity of unhealthy workers is low due to which they work less hours and consequently their earnings will fall.

In case of home based work, the role of a middleman is significant and unavoidable. To explore the role of middleman on the earnings, three dummies are introduced in the model. The dummy of procurement of raw material by their own (OWN) and from household member (HHM) indicates that earnings of women home based workers are 9.1 percent and 11.4 percent more as compared to the base category (procurement of raw material by owner). On contrary, the negative coefficient of middleman (MDM) shows that home based workers who obtain raw materials from a middleman earns 5.9 percent less than those who get it from owner. But the coefficient is insignificant. Hassan and Azman (2014); Sudarshan and Sinha (2011) found similar results. The head of household (HOH) has significant positive coefficient, indicates that the monthly earnings of women workers increases by 10.1 percent with each additional woman who is household head. Because women as head of household work longer hours for economic maintenance of the house as the whole burden of the family is on women and there is no male earner in the family. But the coefficient is insignificant in case of outdoor workers. Assets ownership positively influence the monthly earnings of women workers both home based and outdoor. An increase in the ownership of assets raises the earnings of HBWs by 9.9 percent and ODWs by 8.2 percent. The economic reason could be that women who own assets they become well off and have more prospects to achieve higher education and get healthy diet. So these women have more chances to get better paid jobs with high income level. Chaudhry, Faridi and Anjum (2010); Gillani, Khan and Zahir (2013) found similar results about ownership of assets.

The earnings of women home based and outdoor workers increases who have awareness about labor laws as shown by the significant positive coefficient of LBL. Because when workers have knowledge about labor laws, they feel more secure and are better prepared to handle situations of exploitation. So, they work more efficiently for more earnings. Age profile is an important variable that effect the earnings of women workers. The positive and significant coefficient of age (AGE) elucidates that with one year increase in age, the monthly earnings of women home based workers (HBWs) increases by 8.8 percent and monthly earnings of outdoor women workers (ODWs) increase by 3.6 percent. While the coefficient of age squared (AGE2) is

significant and negative, indicates that the relationship between age and earnings is non-linear. As women get older her level of experience increases, that has a positive influence on earnings. However, according to life cycle theory, after reaching a certain age, their earnings may start to decline with an increase in age. The effect is lower for outdoor workers as compared to home based worker because as women get older her responsibilities at home increase and due to decaying health they work less time outside the home and consequently their earning reduces. The finding is consistent with earlier studies of Akhtar, Iqbal and Bakhsh (2020); Mahmood (2019); Zahir Faridi and Rashid (2014). The monthly earnings of women belongs to urban area are more as compared to those residing in rural area as indicated by positive and significant coefficient of location (LCN). The monthly earnings of urban women home based workers are 5.6 percent and urban outdoor workers are 1.8 percent more than rural women. Because better job opportunities are available in urban areas with high incomes. Rural areas are still not developed and are ignored in obtaining basic facilities such as education and health. Zahir Faridi and Rashid (2014) supports this findings. Earnings of women and their marital status are positively related. But the coefficient is insignificant in case of home based work, imply that getting married has not been shown to increase earnings of home based women workers. For outdoor work, married women significantly earns 13.1 percent more than unmarried women workers. Gillani, Khan and Zahir (2013); Mahmood (2019) present similar findings.

Table 3: Estimates of Earning Function of Home Based and Outdoor Working Women

Dependent Variable: Log of Women's Earning (LNFEI)				
Explanatory Variables	**Description of variables**		**Home Based Worker (1)**	**Outdoor Worker (1')**
	Constant		7.542* (48.013)	8.113* (69.529)
Human Capital Variables	Primary	PRM	0.098* (3.055)	0.419** (4.192)
	Middle	MDL	0.194* (4.529)	0.573* (6.587)
	Matric	MAT	0.237* (4.438)	0.706* (9.676)
	Intermediate	INT	0.293* (5.062)	0.760* (11.164)
	Graduation	GRD	0.429* (5.355)	0.877* (13.382)
	Masters	MST	-	1.047* (16.614)
	Higher Education	HRE	-	1.491* (16.096)
	Presence of Basic Health unit	BHU	0.050*** (1.825)	0.076*** (1.943)
	Presence of disease	DISE	-0.125* (-4.587)	-0.106** (-2.265)
Role of Middleman	Own (self-procure)	OWN	0.093** (2.238)	-
	Household member	HHM	0.114* (2.984)	-
	Middleman	MDM	-0.059 (-1.506)	-
Family Characteristics	Head of Household	HOH	0.101* (3.094)	0.010 (0.182)
	Ownership of assets	ASST	0.099* (3.674)	0.082** (2.016)
Labor Laws	Labor Laws	LBL	0.104* (3.498)	0.129* (3.182)
Demographic Variables	Age in completed years	AGE	0.088* (11.167)	0.036* (6.866)
	Age-Squared	AGE2	-0.001* (-10.437)	-0.0003* (-4.848)
	Location (Urban area)	LCN	0.056** (1.905)	0.183* (4.223)
	Marital Status (married)	MRS	0.006 (0.225)	0.131* (2.811)

R-squared	0.59	0.57
F-Statistic	51.71	51.60
Prob (F-Statistic)	0.000	0.000

Source: Author's Calculations by Using E-Views (Statistical Software).

Table 3 (model 2) display OLS estimates of Mincerian earning function of women home based and outdoor workers with some important additional variables. The R^2 value for home based worker is 0.57, while that for outdoor worker is 0.59. The significant positive coefficient of education (EDU) shows that the monthly earnings of women home based workers increases by 3.0 percent and those of outdoor workers rise by 5.3 percent with an increase in one more year of education. The positive coefficient of experience and negative coefficient of experience-squared confirm the concave experience-earning relationship. The earnings of women increases with each additional year of experience. This is because an increase in work experience improves the skills and capabilities, make an individual more productive and therefore leads to higher earnings. But experience has a decreasing impact over time which indicates that earnings of women rise initially but then falls. Moreover, older women becomes physically weak even though she has better experience they earn less. These results are corroborated with tradition human capital approach and Mincerian earning function. Qadir and Afzal (2024); Zahir Faridi and Rashid (2014) present similar results.

The coefficient of training is significant positive, indicates that the earnings of women home based workers who received any training increases by 10.4 percent while that of outdoor workers increases by 10.9 percent as compared to untrained women. Because training usually increases the skills and working abilities of workers which results in higher labor productivity and in turn higher earnings. Similar findings are presented by Conti (2005). The presence of educated father and educated husband positively influence the women's earnings who are involved in home based and outdoor work. Earnings of outdoor women workers increases with their close relative's education, probably due to fewer social constraints and desire of women to provide a better life to their children. Zahir Faridi and Rashid (2014) corroborate similar results. To investigate the effect of social capital on women's earning two dummies are utilized: bonding social capital, represented by strong family ties (STRT) and linking social capital, represented by formal ties (FORT). Both types of social capital increases the earnings of home based and outdoor workers. Healthy relationship with family members and people at place of work improves workers productivity which in turn improves earnings. The result concerning number of children (NCH) has a positive but insignificant influence on women's earnings. The number of dependents (NDP) and earnings of women workers (home based and outdoor) are positively and significantly correlated. With more number of dependents in family increase the economic pressure will compel the women to work more hours to generate more earnings. The result concerning ownership of asset (ASST) has been found which is similar as found in Table 2.

Overtime work and worker satisfaction also effect the women's earning who work from home and outdoor. The findings illustrates that the regression coefficient of overtime work (OVTW) is positive and highly significant for HBWs imply that women workers who work overtime earn 7.1 percent more than women who do not work overtime. Because payment for overtime motivates the workers to work more hours for more earnings. Moreover it makes the workers psychologically and physically more active and their working capabilities will improve. But the coefficient is insignificant for ODWs. While the coefficient of worker satisfaction from work (WRKS) is positive but the relationship is insignificant. Workers earn more who are more satisfied from their work because they work enthusiastically. Occupation plays a crucial role in determining the earnings of women workers, whether they are working from or work outdoor. It is found that earnings of HBWs are highest (20.4 percent) who are engaged in pottery work while the earning of ODWs who worked as engineer is highest (25.7 percent). The significant positive coefficient of family setup (FSP) imply that women home based and outdoor workers living in joint family system earns 4.7 percent and 7.4 percent more, compared to those in nuclear families. In a joint family system, working women can share domestic chores and household responsibilities, allowing them to work longer hours and increase their earnings. The coefficient of distance (DIST) is negative and highly significant for outdoor work. An increase in every one-kilometer in the distance reduces the monthly earnings of women because it is difficult for women to travel long hours to reach at work place so they prefer to work less hours and consequently earn less income. But for home based women workers distance is not very important in influencing women's earnings as shown by insignificant coefficient of distance.

Table 3: Estimates of Earning Function of Home Based and Outdoor Working Women

Dependent Variable: Log of Women's Earning (LNFE)				
Explanatory Variables	**Description of variables**		**Home Based Worker (2)**	**Outdoor Worker (2')**
Human Capital Variables	Constant		8.610* (123.612)	1.652* (72.800)
	Education in completed years	EDU	0.030* (8.998)	0.053* (11.699)
	Work experience in years	EXPR	0.059* (7.277)	0.043** (2.675)
	Experience-squared	EXPR2	-0.001* (-5.369)	-0.002** (-2.539)
	Training in years	TRAN	0.104* (3.433)	0.109* (2.661)
Presence of Closed Relatives Education	Father's years of education	EDF	0.015* (4.750)	0.015* (3.535)
	Husband's years of education	EDH	0.007** (2.506)	0.007** (2.134)
Social Capital	Strong Family Ties	STRT	0.092* (3.036)	0.069*** (1.698)
	Formal Ties	FORT	0.118* (4.022)	0.072*** (1.770)
Family Characteristics	Number of children	NCH	0.001 (0.167)	0.014 (0.976)
	Number of dependents	NDP	0.021** (1.968)	0.047* (3.758)
	Ownership of assets	ASST	0.114* (4.122)	0.097* (2.443)
Work Characteristics	Overtime work	OVTW	0.071** (2.573)	0.050 (1.213)
	Worker satisfaction	WRKS	0.027 (0.955)	0.060 (1.457)
Occupations (HBW)	Stitching/ embroidery	STCH	0.082*** (1.699)	-
	Pottery	POTR	0.204* (3.742)	-
	Handicraft	HNDC	0.165* (3.266)	-
	Leather	LTHR	0.182* (2.949)	-
	Food	FOOD	0.022 (0.307)	-
Occupations (ODW)	Teaching	TCH	-	0.242* (3.418)
	Medicine	MED	-	0.255* (3.173)
	Banking	BNK	-	0.189** (2.273)
	Engineering	ENG	-	0.257* (2.879)
	Marketing	MKT	-	-0.040 (-0.495)
	Computer operator	CMO	-	0.202* (2.606)
	Other Work	OTHR	-	-0.007 (-0.097)
Demographic Variables	Family setup (Joint family)	FSP	0.047*** (1.832)	0.074*** (1.822)
	Distance in kilometers	DIST	-0.0005 (-1.160)	-0.002* (-3.424)
	R-squared		0.59	0.57
	F-Statistic		51.71	51.60
	Prob (F-Statistic)		0.000	0.000

Source: Author's Calculations by Using E-Views (Statistical Software).

5. Conclusions and Policy Recommendations

In this study the extended form of Mincerian earning functions are estimated for home based and outdoor women workers by employing various socio-economic and demographic variables. The study used the cross-sectional data collected from 1227 working women through questionnaire by using purposive sampling technique from Multan Division. The findings of the study concluded that education both in completed years and various level of education has a positive and significant relationship with earnings of women home based and outdoor workers. The coefficient of all educational dummied (PRM, MDL, MAT, INT, GRD, MST, HRE) are found to be positive and significant. Education of closed relatives have positive and significant influence on the earnings of home based and outdoor women workers. It is found that age/experience, training, presence of basic health unit, strong family ties, formal ties have positive, while the presence of disease and distance have negative influence on earnings. The earnings of home based workers who get the raw material from middlemen is less than who get it from owner. Moreover, family characteristics (head of household, ownership of assets, number of children, number of dependents), work related variables (overtime work, worker satisfaction), demographic variables (location, marital status and family setup) and awareness about labor laws are positively related with earnings of home based and outdoor workers. Occupation of women also effect the earnings of women engaged in home based and outdoor work. In case of based worker, the earnings of women who is involved in pottery work is highest while the earnings of women engaged in food is lowest. For outdoor worker the earning of engineers is highest while it is lower in case of marketing. It is suggested that human capital should be on top priority by allotting extra resources for education, health to enhance the labor productivity and thus the earnings of women workers. Most of the women involved in home based work earn low income because they have only primary education. Education policies should be revised and formulated according to the requirements of the economy. The free technical and vocational education must be on top priority as home based worker has a very high need for technical and vocational labor force. Efforts should also be made that the woman has an easy access to get higher education throughout the Multan. This study suggests that policymakers should prioritize both human capital development and Research and Development to help the nation progress toward becoming a developed country.

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