Pakistan Social Sciences Review
www.pssr.org.pk

RESEARCH PAPER

The Urban Informal Economy and Earning Facilitations: Evidence from District Multan

Khawaja Asif Mehmood [1] Ali Azam[2] Fahim Ullah [3]

1. Lecturer, School of Economics, Bahauddin Zakariya University, Multan, Punjab, Pakistan
2. Assistant Professor, Department of Economics, The Islamia University of Bahawalpur, Punjab, Pakistan
3. M. Phil Scholar, School of Economics, Bahauddin Zakariya University, Multan, Punjab, Pakistan

PAPER INFO	ABSTRACT
	Urban informal sector is a vital source of employment to wide array of labor in urban territories. This study surveys urban informal sector with specific objective to assess the monthly earning dynamics of the individuals. For this purpose, primary data was collected by field survey of District Multan with sample size of 200 individuals engaged in informal sector. The ordinary least square method is in corporate for estimation of results. The findings show significant and positive contribution of education, age, duration of working hours, and experience toward monthly income. Work shift and annual pay rise are traced for no effect whereas, family size showed mixed results. Marital status, nature of work, and road conditions to work, where significant, are found to positively affect monthly income. The need of time is to investment in urban informal sector to amplify the horizon of job opportunities and income of labor in urban informal sector

Introduction

The purpose of economic growth is to improvise standard of living. However, at large, living standard is determined by income earned in different times. To Fields (1990), the workers who are engaged in non-modern employment activities, needs to be sure of the fact that the sector they are carrying out activities in is termed urban informal sector. Informal sector embeds established economic activities those are away from formals rules and regulations. The developing nations suffer from the state of unlimited labor supply. Due to wide spread job seekers with narrow range of employers, informal sector jobs persist. To Khan and Ashraf (2012), about 60 percent of job opportunities are found in mostly the urban informal sector of world developing nations.

Informal small businesses create jobs opportunities for individuals (Cross, 1997). In countries like Latin America and Africa, more that 50 percent and 80 percent of the jobs are of informal nature. Therefore, even indecent, informal sector contributes in creating jobs. Up to large extend, the poverty victims are helped by informal jobs and thereby unemployment issues are addressed. The informal sector employment is dissimilar in nature from formal employment since workers do not possess any fringe benefits and perks except for salary. One of the foremost transformations between formal and informal sector is the job security and investment on employees in terms of investment of time, training, and specific specialized education to their workers ‑which ultimately benefit the business. But in case of informal sector, workers are to perform short term tasks and work at seasonal level that makes labor to remain insecure in sense of job lose without any reasoning or notice either.

Literature Review

Formal and urban informal sector were in-focused by researchers in manifold attempts. The panel data analyses on Turkey ranging from 2006 to 2009 were observed by Tansel and Kan (2012). Findings revealed by the technique of Ordinary Least Square (OLS) revealed low earning of urban informal sector workers than those in formal urban sector. Similarly, Cheema and Atta (2014) incorporated Autoregressive Distributed Lag (ARDL) technique and found positive relationship between jobs and economic certainty, productivity, and productivity gap. The negative relationship was found against gross fixed saving and trade openness.

Non-modern employment, located in informal urban territories, offers job opportunities in mostly the third world countries (Fields, 1990; Cross, 1997; Reddy *et al.*, 2003; Khan & Ashraf, 2012). In this regard, Gillani *et al.* (2013) investigated determinants of earning. The findings publicized positive relationship of age, education, sex, household assets, and working hours. Similar findings were revealed by Gillani and Ali (2013) who, exposed in OLS results, positive and significant relationship of education and earning.

Whereas, Mok and Qian (2018) went for nationwide data survey between 2005 and 2013. The analyses of data publicized two major findings. Firstly; the earning level of college graduates who were recently graduated was lower than those who qualified during 2005 to 2006. Secondly; recent cohorts of college graduates were found to be mostly tied up in urban informal sector contrary to their senior counterparts. Thus concluded that education promotes human capital and enhance chances to increase income. In this regard, Kimenyi*et al*. (2006) depended on welfare data of Kenya. Manda *et al*. (2002) adopted theory of human capital of Mincer (1974) to estimate earning equation. Findings confirmed positive relationship between income and education. Complementarily, Smith (2001) worked along population survey of 1991 and carried out research to investigate how schooling and training affect the income of U.S citizens. Estimated results

clarified positive effects of education and training on the earnings. Moreover, other regressors such as age squared and experience squared were found to be negative in their impacts on earning function of the individuals.

Earlier, Burki, Abbas, and Shabbir (1991) looked for the relationship of skills of males on the output in an informal sector. The result confirmed increase of output due to skill development. Similarly, earning differences in males and females were analyzed by Ashraf and Ashraf (1993). Whereas, the factors pointed out to affect earning function were education and age. The results highlighted age to affect earning in positive. Moreover, age squared was stood negative in affectation on earnings. On the similar note, earning was also effected positively by education. However, better living standard is not confirmed. Lehman and Pignatti (2018) carried research on Ukraine. The results exposed heterogeneity among employment and informal sector employees. Which means low quality of life of every single person engaged in urban informal sector?

Moreover, Khan and Idrees (2014) examined determinants of district wise earnings of individuals in Pakistan. Findings illuminated positive effects of age group, dependency ratio, and education on earnings of individuals. Correspondingly, Faridi*et al.* (2010) incorporated binary logistic model and captured the positive relationship of age and experience as well as health and education.

Material and Methods

The District Multan was chosen for the field survey. District Multan is the oldest District of Province Punjab and caters manifold locates of urban informal sector economic activities. Therefore, purposely urban informal sector of Multan city was selected with nature of urban informal sector as in special focus. The sample entailed with size of 200 urban informal sector workers engaged in distinctive economic activities. The data was collected from the urban territories of east, west, north, and south. The age group considered for the questionnaire based response ranged from 14 to 65 years. The survey was drawn randomly from urban informal workers.

Method of Estimation

This study emphasizes the prominence of urban informal sector in respect of how it favors the earning of the individuals within give characteristics of workers. To do so, earning of pupil located in urban informal sector of Multan city is taken as dependent variable and in natural logarithmic form. The regression models are estimated through OLS technique. The multiple regression form of OLS model is given in Eq. [1].

$$Y = f(X_1, X_2, \ldots, X_N) \qquad [1]$$

Whereas, *Y* is the earning of the respondent in urban informal sector. The independent variables in respective models are X_1, X_2,….., X_N. Therefore, the multiple regression form of OLS is given as in Eq. [2].

$$Y = \mathsf{s}_0 + \mathsf{s}_1 X_1 + \mathsf{s}_2 X_2 + \ldots + \mathsf{s}_k X_k + \tilde{}_t \qquad [2]$$

The $\tilde{}_t$ is an error term and $\mathsf{s}_1, \mathsf{s}_2, \ldots, \mathsf{s}_k$ are the partial regression coefficients.

Earning Functions of Urban informal sector

Urban system of underdeveloped countries is engaged with contrasting system of economic activities. Geertz (1963) entitled urban economy as word "Bazaar". ILO (1972) and Hart (1973) conceptualized the term formal and informal sector. Whereby, "Circuits" was the conceptual name introduced by Santos (1977). Later on, in context of mode of production, urban informal sector was referred to be as market of "Petty Commodity Production."

Petty activities are also accused to be exploitive at individual levels. It is so because low paid earning opportunities are found in urban informal sector. Such sectors sometimes are viewed as nuisance to public (Langdon, 1975; Mazumdar, 1976; Kaplinsky, 1979; Gerry & Birkbeck, 1981; Bolnick, 1992). Literature highlights urban informal sector to cater supply of labor at large that is to not possess dynamic characteristics. On the contrary, group of researchers accommodate space to appraise urban informal sector in providing earning opportunities, development of skills, and to make progress in terms of finance to the numerous participants into the urban informal economic activities (Mazumdar, 1976; Dannhaeuser, 1977; Bromley & Rusque-Alcaino, 1979; Bannerjee, 1981; Bolnick, 1992).

Concluding the past literature on highlights of urban informal sector in initializing earning patterns of job seekers, to locate the components of personal traits of pupil prevailing in urban informal sector in affecting their earning, following earning functions are estimated:

$$lER_i = \mathsf{s}_0 + \mathsf{s}_1 AGE_i + \mathsf{s}_2 AGE_{sqi} + \mathsf{s}_3 DWH_i + \mathsf{s}_4 WSF_i + \mathsf{s}_5 FMS_i + \mathsf{s}_6 MTS_i + \mathsf{s}_7 NOW_i + \mathsf{v}_i$$
[3]

$$lER_i = \mathsf{s}_0 + \mathsf{s}_1 AGE_i + \mathsf{s}_2 AGE_{sqi} + \mathsf{s}_3 MTS_i + \mathsf{s}_4 NOW_i + \mathsf{s}_5 APR_i + \mathsf{s}_6 CWE_i + \mathsf{s}_7 OYS_i + \mathsf{v}_i$$
[4]

$$lER_i = \mathsf{s}_0 + \mathsf{s}_1 AGE_i + \mathsf{s}_2 MTS_i + \mathsf{s}_3 NOW_i + \mathsf{s}_4 EDU_i + \mathsf{s}_5 PRB_i + \mathsf{s}_6 HAV_i + \mathsf{s}_7 RTW_i + \mathsf{v}_i$$
[5]

$$lER_i = s_0 + s_1 EDU_{1i} + s_2 EDU_{2i} + s_3 EDU_{3i} + s_4 EDU_{4i} + s_5 APR_i + + s_6 NOW_i + s_7 RTW_i + s_8 FMS_i + v_i$$

[6]

$$lER_i = s_0 + s_1 EDU_i + s_2 FMS_i + s_3 APR_i + s_4 EXP_i + s_5 CWE_i + s_6 NOW_i + s_7 MTS_i + v_i$$

[7]

$$lER_i = s_0 + s_1 EXP_{1i} + s_2 EXP_{2i} + s_3 EXP_{3i} + s_4 RTW_i + s_6 NOW_i + s_7 MTS_i + v_i$$

[8]

The variables are described in the Table 1

Table 1
Descriptions of Variables

Dependent Variable (*lER*)is the Respondent's Monthly Earning at Urban informal sector.

Regressors	Description
AGE	Respondent's age, ranging between 14 to 65 years.
AGE_{sq}	Respondent's square of age.
DWH	Respondent's hours of work done on daily bases.
WSF	Respondent's shift of work; Day shift = 1; Night shift = 0.
FMS	Respondent's familysize.
EDU	Respondent's education received in years.
MTS	Respondent's marital status; Married = 1; Unmarried = 0.
NOW	Respondent's nature of work; Permanent= 1; Temporary=0.
APR	Respondent's increase in salary on annual bases; Yes=1; No = 0.
CWE	Respondent's written contract with employer; Yes= 1; No =0.
OYS	Respondent's others source of income; Yes = 1; No = 0.
PRB	Respondent's parental belonging; Rural = 1; Urban = 0.
HAV	Respondent's household value of assets.
RTW	Respondent's road condition to work place; Good=1; Bad=0.
EDU_1	Respondent's education isup till grade five; Yes=1; No=0.
EDU_2	Respondent's education is up till grade eight; Yes=1; No=0.
EDU_3	Respondent's education is up till grade ten; Yes=1; No=0.
EDU_4	Respondent's year of education isup till grade twelve; Yes=1; No=0.
EDU_5	Respondent's year of education is up till grade fourteen and above; Yes = 1; No = 0.
EXP	Respondent's prior experience of work; Yes = 1; No = 0.
EXP_1	Respondents' work experience is lesser than 5 years; Yes=1; No=0.
EXP_2	Respondent's work experience is more than 5 years; Yes=1; No=0.
EXP_3	Respondent's work experience is more than 10 years; Yes=1; No=0.

Results and Discussion

This section renders information on the descriptive and econometric analyses.

Descriptive Analyses

The descriptive analyses, given in Table 2, contribute to endorse the results that about 57 percent of the labor engaged in this sector draws monthly income within 100001 to 15000. On the other side, 10 percent of the labor gets income till 10000 and in between 20001 to 25000. Less labor enjoys income above 30000.

Table 2
Descriptive Analyses

Monthly Income		Education of Respondent	
Unit	Percentage	Level	Percentage
1-10000	10.0	Primary	28.0
10001-15000	57.0	Middle	47.0
15001-20000	9.0	Metric	22.0
20001-25000	10.0	Intermediate	3.0
25001-30000	9.5	Bachelor and above	0.0
30001 and above	5.0	--	--
Age Wise Distribution of Respondent		**Hours of Work of Respondent**	
Years of Ages	Percentage	Hours of Work	Percentage
14 to 30	63.0	6 Hours	5.5
31 to 50	35.5	8 Hours	94
51 to 70	1.5	10 Hours	0.5
--	--	12 Hours	0.0

Table 3
Continued (Descriptive Analyses)

Annual Pay Rise of Respondent		Other Source of Income of Respondent	
Status	Percentage	Status	Percentage
Yes	95.0	Yes	19.5
No	5.0	No	80.5
Parental Belonging of Respondent		**Any Household Asset Held of Respondent**	
Status	Percentage	Status	Percentage
Urban	45.0	Yes	13.5
Rural	55.0	No	86.5
Condition of Road to Work Place of Respondent		**Years of Experience of Respondent**	
Status	Percentage	Years	Percentage
Good	58.0	1-5	62.0
Bad	42.0	6-10	27.0

--	--	11-15	11.0
Fulfillment of Basic Needs of Respondent		**Respondents Satisfied From Job**	
Status	Percentage	Status	Percentage
Yes	90.0	Yes	78.0
No	10.0	No	32.0
Respondents Searching For Better Job		**Respondents' Paid Leaves to See Ones Family**	
Status	Percentage	Status	Percentage
Yes	99.0	Yes	1.0
No	1.0	No	99.0

Note: Findings base upon sample survey of urban informal sector of District Multan

Majority of the labor is educated till middle. Least fraction of only 3 percent are intermediate qualified. At large, labor lies in age group between 14 to 30 years. About 0.5 percent people work for 10 hours. Whereby, majority works for 8 hours a day. The result on annual pay rise confirms that 95 percent of labor remits annuals pay rise. The labor that gathered data from those very rare in having any other source of income. The rural and urban percentage of labor located in sample is 45 percent and 55 percent, respectively. Only 13.5 percent of worker has contribution in to household assets. Condition of road to work place is good to 58 percent of the workers. Most of the workers say 62 percent who are engaged in present informal urban economic activity are withheld with an experience of 1 to 5 years. Remarkably, 90 percent of the workers are found fulfilling their basic needful and therefore, complemented to be satisfied with their job.

About 78 percent of the workers are satisfied from the job they are doing. At precise, 99 percent of the workers are found searching for better jobs even though satisfied from present job. Identically, 1 percent are those whose employers do not cut their wages while they go to see their family. Rest of all i.e. 99 percent of workers has to see their family at the cost of wages they draw.

Econometric Analyses

OLS estimates of earning function are given in Table 5.1. Adjusted R_{sq} value is 0.71 and exhibits that 71 percent of the variations in monthly earnings are explained by the explanatory variables of the model. Monthly income in log form is explanatory variable. On account of Eq. [3], coefficient of AGE is 0.02 that reveal positive and significant relationship with monthly earning, similar to Faridi *et al*. (2010) and Faridi and Rashid (2014). Higher age leads to increase in the monthly earnings by 0.02 percent. One the other side, the coefficient of AGE_{sq} is negative and insignificant. It means growing age has no significant effect on the monthly earning of pupil who are engaged in the urban informal sector.

Duration of work hours reflect positive affectation on monthly income. Any increase in the working hours contributes to increase monthly income by 0.03 percent. Shift of work, family size, and marital status are insignificant. However, nature of work is significant in its relationship with monthly earning. Thus, the conclusion is that permanent job results in contributing into the monthly earning by 0.05 percent.

Table 4
Estimates of Earning Function Eq. [3]

Dependent Variable: Monthly Earning.			
Variable	**Coefficient**	**Std. Error**	***t*-statistic**
C	3.57*	0.10	36.79
AGE	0.02*	0.01	3.25
AGE$_{sq}$	0.00	0.00	-0.86
DWH	0.03*	0.01	6.49
WSF	-0.03	0.03	-0.95
FMS	0.01	0.02	0.39
MTS	0.01	0.01	0.96
NOW	0.05*	0.02	2.52
R-squared		0.72	
Adjusted R$_{sq}$		0.71	
***F*-statistic**		72.04	
Prob. (*F*-statistic)		0.00	

Source: Authors' Primary Data Survey Results, 2019; * show significant at 5 percent.

Furthermore, explanatory variables such as annual pay rise, written contract with employer, and other source of income are taken into account in Eq. [4]. The outcomes are portrayed in Table 4. None of those explanatory variables are found significant in their effect on monthly earnings of individual. However, over all model is held significant at 5 percent. Adjusted R$_{sq}$ value shows 54.42 of the overall variations in dependent variable are being transmitted from the explanatory variables in respective model.

Table 5
Estimates of Earning Function Eq. [4]

Dependent Variable: Monthly Earning.			
Variable	**Coefficient**	**Std. Error**	***t*-statistic**
C	3.66*	0.09	41.72
AGE	0.03*	0.01	4.70
AGE$_{sq}$	0.00*	0.00	-2.13
MTS	0.01	0.01	0.70
NOW	0.04**	0.02	1.79
APR	0.02	0.03	-0.72
CWE	-0.01	0.03	-0.31

OYS	0.01	0.02	0.80
R-squared		0.67	
Adjusted R$_{sq}$		0.65	
F-statistic		54.42	
Prob. (*F*-statistic)		0.00	

Source: Authors' Primary Data Survey Results, 2019;*& ** show significant at 5 and 10 percent.

Table 5 reports the results of education, parental belonging, household value of assets, and road conditions to work place of worker, referring to Eq. [5]. The findings conclude no significant impact of parental belonging. In precise, it is irrelevant to consider whether worker who is engaged in urban informal sector is either coming from rural or urban area as a part of parental belonging. Similarly, conditions of road are also meaningless to impact the monthly earnings of individual worker.

However, household value of assets and education are established significant and positive in their effects on monthly income. More is the household assets value, higher is the post of monthly earning that an individual worker has to be adhered to in order to maintain those assets. However, the percentage affect in mild.

Table 5
Estimates of Earning Function Eq. [5]

Dependent Variable: Monthly Earning.			
Variable	**Coefficient**	**Std. Error**	*t-statistic*
C	3.72*	0.03	107.77
AGE	0.01*	0.00	12.04
MTS	0.01	0.01	0.76
NOW	0.02	0.02	0.90
EDU	0.01*	0.00	3.87
PRB	0.02	0.02	1.50
HAV	0.00*	0.00	-2.52
RTW	0.01	0.02	0.59
R-squared	0.70		
Adjusted R$_{sq}$	0.69		
F-statistic	64.02		
Prob. (*F*-statistic)	0.00		

Source: Authors' Primary Data Survey Results, 2019; * show significant at 5 percent.

Importantly, education is found significant and positive. The coefficient value explains 0.01 percent of an increase in monthly earning at the back of any additional gain of education. Education is vital in its role whether it is formal or an informal sector either. Literate workers are more to contribute into the output

function of the business they are entangled with. The results are thus compatible with Benerjee (1983), Sargana and Saqib (1998), Gillani and Ali (2013), and Faridi and Rashid (2014). Overall model is held significant with exhibit of 69 percent of the variations translated by the explanatory variables upon the monthly earnings.

Afterwards, education is divided into various categories. It is done to check whether monthly earnings are affected in terms of grade-wise categories such as till grade five, eight, ten, twelve, and fourteen and above. The results are given in Table 6. At particular, positive state of being is already found on account of integrated version of education. Similarly, EDU_3 and EDU_4 are also illustrated to swell the monthly earning of the individual who is engaged in the economic activity in the urban informal sector. Altogether, 0.05 percent and 0.01 percent increase in monthly earning is found at the back of education till grade twelve and fourteen and above.

Table 6
Estimates of Earning Function Eq. [6]

Dependent Variable: Monthly Earning.			
Variable	**Coefficient**	**Std. Error**	***t*-statistic**
C	4.03*	0.13	31.59
EDU_1	-0.05	0.08	-0.55
EDU_2	-0.06	0.07	-0.80
EDU_3	0.05*	0.02	2.98
EDU_4	0.01*	0.00	2.84
APR	0.00	0.04	0.09
NOW	0.03	0.03	1.16
RTW	0.04*	0.02	2.23
FMS	-0.10*	0.02	-5.29
R-squared	0.43		
Adjusted R_{sq}	0.41		
***F*-statistic**	16.00		
Prob. (*F*-statistic)	0.00		

Source: Authors' Primary Data Survey Results, 2019; * show significant at 5 percent.

Interestingly, earning function at Eq. [6] carries significant and positive effect of road condition to work upon the monthly earnings. The findings can be concluded as 0.04 percent increase in monthly earning on account of any good state of road condition to work. Overall, 41 percent of the effectuality on regress and is transpired by explanatory variable in respective model. Furthermore, the model is also held with significant *F*-statistic.

In case of Eq. [7], education is taken in complete years with overall work experience withheld with the worker. The findings are illuminated in Table 7.

Results conclude that 0.03 percent of increase in monthly earning is recordable on account of any addition into the overall work experience.

Table 7
Estimates of Earning Function Eq. [7]

Dependent Variable: Monthly Earning.			
Variable	Coefficient	Std. Error	*t*-Statistic
C	3.91*	0.04	89.40
EDU	0.01*	0.00	3.37
FMS	0.00	0.02	0.18
APR	0.02	0.03	0.59
EXP	0.03*	0.00	13.19
CWE	0.00	0.03	0.06
NOW	0.02	0.02	0.79
MTS	0.04*	0.01	3.69
R-squared		0.72	
Adjusted R_{sq}		0.71	
F-statistic		71.89	
Prob. (*F*-statistic)		0.00	

Source: Authors' Primary Data Survey Results, 2019; * show significant at 5 percent.

Therefore, positive relationship is settled between work experience and monthly earning. Experience is essential ingredient to foster income. Faridi and Rashid (2014) also came up with similar findings on experience and even when taken as an interaction term with varied level of education. The findings are to stay in-line with Faridi and Rashid (2014). Moreover, *F*-statistic is held significant and Adjusted R_{sq} value confirms 71 percent of the variations on monthly earnings being emerged from the explanatory variables of Eq. [7]. Marital status is also significant and positive in affecting monthly income.

In lattermost, work experience is split up into varied sub-divisions in Eq. [8]. Only significant and positive effects are traced in case of EXP_3. The findings are given in Table 8.

Table 8
Estimates of Earning Function Eq. [8]

Dependent Variable: Monthly Earning.			
Variable	Coefficient	Std. Error	*t*-Statistic
C	4.18*	0.09	42.45
EXP_1	-0.09	0.09	-0.99
EXP_2	0.01	0.09	0.13
EXP_3	0.21*	0.09	2.21
RTW	0.02	0.01	1.72
NOW	0.03	0.02	1.31
MTS	0.07*	0.00	7.49

R-squared	0.68
Adjusted R-squared	0.67
F-statistic	69.49
Prob. (*F*-statistic)	0.00

Source: Authors' Primary Data Survey Results, 2019; * show significant at 5 percent.

At precise, 0.21 percent increase in monthly earnings at urban informal sector is witnessed at the back of an additional experience of more than ten years. Moreover, marital status as in Eq. [7] is also beheld for the argument that married workers are more to have an increase in their monthly earning by 0.07 percent. This is because the married workers have to earn not only for self being rather for their family as well. Overall significance of model is traced by value of Adjusted R_{sq} which concludes 69.49 percent of the impact of explanatory variables of Eq. [8] is echoed upon regress and.

Conclusions and Policy Recommendations

Growing urban sector informal sector is nourished by influx of urban agglomerations who wonder in search of work. Urban informal sector becomes vital source of employment accommodation because of unable length of prevailing formal sector. The fact is that urban informal sector is not only a domain for urban population rather also beneficial towards the genetic of economic activities.

This study aimed to sightsee the role of urban informal sector in contributing toward generating the monthly income of the individuals. Empirical findings confirmed that age, duration of work, nature of work, and road conditions to work positively affected monthly earnings. Moreover, education in composite as well as at various levels was also held positive to monthly earnings of workers contained in urban informal sector. Experience and marital status also beard direct relationship with monthly earning.

Urban informal sector encompasses vast challenges in respect of recognition, registration, and credit. Despite these defies, urban sector pupil still consider urban informal sector for monthly earnings. There is still much to be done like;

1. Shelter of jobs with market wages to positively influence employers and employee to build strong bonding for furthering economic activities.
2. Permanent nature of jobs is needed for solidifying confidence of workers and improving monthly earnings.
3. Awareness and easement towards education, training, and infrastructure building for facilitating the urban people towards better contribution into the economic activities.

In general, primary data research is found to be expensive because it needs travelling and time management. Also, to avoid the biasness of respondents,

inaccuracy of responses is usual. Despite of this assertion, this study suggests future research with vast data range. Furthermore, division of labor on the bases of gender and occupation may enhance the confidence of future researchers to fill literature gap.

References

Ashraf, J., & Ashraf, B. (1993). An analysis of the male-female earning differentials in Pakistan. *The Pakistan Development Review*. *32*(4). 895-904.

Bolnick, B. R. (1992). Moneylenders and informal financial markets in Malawi. *World Development*, *20*(1), 57-68.

Bromley, R., & Rusque-Alcaino, J. (1979). The bottle buyer: An occupational autobiography. In R. Bromley., & C. Gerry (Eds.). *Casual work and poverty in Third World Cities* (pp. 185-215). New York: Wiley.

Burki, A. A., Abbas, Q., & Shabbir, T. (1991). Earnings functions in Pakistan's urban informal sector: A case study [with comments]. *The Pakistan Development Review*, *30*(4), 695-706.

Cheema, A. R., & Atta, A. (2014). Economic determinants of unemployment in Pakistan: Co-integration analysis. *International Journal of Business and Social Science*, *5*(3), 209-221.

Cross, J. C. (1997). Entrepreneurship & exploitation: Measuring independence and dependence in the informal economy. *International Journal of Sociology and Social Policy*, *17*(3/4), 37-62.

Dannhaeuser, N. (1977). Distribution and the structure of retail trade in a Philippine commercial town setting. *Economic Development and Cultural Change*, *25*(3), 471-453.

Faridi, M. Z., & Rashid, A. (2014). The correlates of educated women's labor force participation in Pakistan: A micro-study. *The Lahore Journal of Economics*, *19*(2), 155-184.

Faridi, M. Z., Chaudhry, I. S., Anwar, M., & Majeed, A. (2010). The determinants of self-employment in Pakistan: Evidence from primary data analysis. *Journal of Political Studies*, *17*(1), 151-165.

Fields, G. S. (1990). Labour market modeling and the urban informal sector: Theory and evidence. In D. Turnham, B. Salomé, & A. Schwarz (Eds.), *The informal sector revisited* (pp. 49-69). Paris: Organization for Economic Co-operation and Development.

Geertz. C. (1963). *Peddlers and Princes: Social change and economic modernization in two Indonesian towns*. Chicago: University of Chicago Press Books.

Gerry, C., & Birkbeck, C. (1981). The petty commodity producer in Third World Cities: Petit bourgeois or disguised proletarian? In F. Bechhofer & B. Elliot

(Eds.). *The petit bourgeoisi: Comparative studies of the uneasy stratum* (pp. 121-154). London: MacMillan.

Gillani, D. Q., & Ali, K. (2013). Employment status and earning functions in urban informal sector: A case of Southern Punjab, Pakistan. *Pakistan Journal of Applied Economics*, *23*(2), 97-113.

Gillani, D. Q., Khan, R. E. A., & Zahir, M. (2013). Earning determinants and urban informal sector: Evidence from District Multan. *Pakistan Vision*, *14*(2), 132-148.

Hart, K. (1973). Informal income opportunities and urban employment in Ghana. *Journal of Modern African Studies*, *11*(1), 61-69.

Kaplinsky, R. (1979). Inappropriate products and techniques: Breakfast food in Kenya. *Review of African Political Economy*, *14*(1), 90-96.

Kazi, S., & Havinga, I. C. (1987). Skill formation, employment and earnings in the urban informal sector [with comments]. *The Pakistan Development Review*, *26*(4), 711-719.

Khan, K., & Idrees, M. (2014). Determinants of earnings: A district wise mapping of Pakistan. *Forman Journal of Economic Studies*, *10*(1), 1-16.

Khan, M., & Ashraf, A. (2012). Informal employment in Pakistan: the growing challenge for decent work. *Elixir journal of Management*, *42*(1), 6433-6446.

Langdon, S. (1975). Multinational corporations, taste transfer and underdevelopment: A case study from Kenya. *Review of African Political Economy*, *2*(2), 12-35.

Lehmann, H., & Pignatti, N. (2018). Informal employment relationships and the labor market: Is there segmentation in Ukraine? *Journal of Comparative Economics*, *46*(3), 838-857.

Kimenyi, M., Mwabu, G., & Manda, D. (2006). Human capital externalities and private returns to education in Kenya. *Eastern Economic Journal*, 32(3), 493-513.

Mazumdar, D. (1976). The urban informal sector. *World Development Dialogues*, *5*(2), 9-21.

Mincer, J. (1974). *Schooling, experience, and earnings*. Authoring Institution: National Bureau of Economic Research, Inc., New York: NY.

Mok, K. H., & Qian, J. (2018). Massification of higher education and youth transition: Skills mismatch, informal sector jobs and implications for China. *Journal of Education and Work*. *31*(4), 339-352.

Santos, M. (1977). Spatial dialectics: The two circuits of the urban economy in underdeveloped countries. *A Radical Journal of Geography*, *9*(3), 49-60.

Sargana, M. A., & Saqib, N. (1998). The urban informal sector in an adjusting economy: The case of Pakistan [with comments]. *The Pakistan Development Review*, *37*(4), 977-994.

Smith, W. J. (2001). Estimates of the effects of education and training on earnings (Fiscal Research Policy Report No. 54). Atlanta: Georgia State University.

Tansel, A., & Kan, E. O. (2012). The formal/informal employment earnings gap: Evidence from Turkey (Discussion Paper Series No. 6556). For schungsinstitut zur Zukunft der Arbeit Institute for the Study: Turkey.