Which Sector is easily accessible for female as a source of income?

A Case Study of Bahawalpur

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ABSTRACT

This research paper is investigating the determinants of the female income in informal sector and formal sector. It also highlights which sector is easily accessible for female as a source of income. A comparative analysis of the female earnings between formal and informal sector have been done which shows that informal sector is more appropriate as a source of income for females. The data in this research paper has been collected from Ali Pur through questionnaires. One thousand women have been interviewed 500 form formal sector and five hundred from informal sector and then a comparison has been made considering the factors which affects the female earnings in formal and informal sectors. This comparison has been done the help of econometric models consisting of all the variables that affect the female income in both sectors whether they affect positively or negatively.

INTRODUCTION

Women labor force participation rate in Pakistan, according to old data collection technique was exceptionally low at just 14.4%, as compared to 70.3% for men, while unemployment rate was 16.5% for women and 6.7% for men (FBS 2003, PP.15, 30) the share of women's earnings in earned income of household was 26% of that of men earnings while their economic activity rate as percentage of that of men was 40% (MHDC, 2000). According to revised data collection technique of federal Bureau of statistics, women's participation rate has been increased to 50% instead of 14.4% in 2003. According to revised data collection, if a women is involved doing work such as harvesting, sowing seeds, cotton-picking, maize and rice husking, livestock and poultry breeding, agricultural forming activities, construction work, collection of fire-wood and cotton-sticks, fetching water, making clothes, sewing, knitting, marketing and preparation of goods and materials, then she will be included in labor force. It explained that informally employed women have increased the labor force participation rate of women up to 50%. Informal sector employment is generally a larger source of employment for women than for men in the developing world. In the developing countries, 60% or more women workers are informally employed (outside agriculture), through in Asia the proportion of women and men is roughly equivalent.

FORMAL SECTOR

All those types of employment which offer regular wages and hours, which carry with them employments rights and on which income tax is paid is called the formal sector. It is a sector which encompasses all jobs with normal hours and regular wages and is recognized as income sources on which income taxes must be paid which is opposite of informal sector. The employment sector, comprising 'proper' jobs that are usually permanent, with set hours of work, agreed levels of pay and sometimes pensions and social security rights.

INFORMAL SECTOR

It is a sector which encompasses all jobs which are not recognized as normal income sources, and on which taxes are not paid. The term is sometimes used to refer to only illegal activity, such as an individual who earns wages but does not claim them on his or her income taxes, or a cruel situation where people are forced to work without pay. However, informal sector could also be interpreted to include legal activities, such as jobs that are performed in exchange for something other than money which is opposite of formal sector.

OBJECTIVES

1. To find out determinants of female earnings in formal and informal sectors.
2. To find out which sector is easily accessible for females as a source of income.

METHOD AND METHODOLOGY FOR CONSTRUCTION THE ECONOMETRIC MODEL FOR COMPARISON

This research is based on the primary data and the field research is conducted in Alipur. We selected this area for the collection of our empirical data for several reasons. Firstly Pakistan is a developing country in which female earning in formal and informal sector plays an important role and Alipur constitutes a good location for our research related with formal and informal sector. Secondly, we live there and we have valuable contacts that helped us to touch with females. Total Population is 40000 and 1000 females for Formal Sector and 1000 females for Informal Sector are selected as a sample size for this study. And the data were collected within 2 weeks.

DEFINING THE VARIABLES

In our research the variables are

- Type of institution
- Age
- Education
- Response of the family
- Opinion about women's job
- Working hours
- Family income
- Family size

MODEL CONSTRUCTION

Equation of the Female Earning in Formal Sector

$$FEF = \beta_0 + \beta_1 TI + \beta_2 A + \beta_3 E + \beta_4 ROF + \beta_5 OPJ + U_i$$

Where

FEF   =Female Earning in Formal sector

TI   = Type of Institution

A   = Age

E   = Education

ROF   =Response of Family

OPJ   =Opinion about Job

Ui   = Random error

$$\beta 0, \beta 1, \beta 2, \beta 3, \beta 4, \beta 5$$

Where female earning in formal sector is our dependent variable and the independent variables is type of institution, age, education,   response of the family, opinion about women's job.

Equation of Female Earning in Informal Sector

$$FEF = \beta 0 + \beta 1 FI + \beta 2 AFS + \beta 3 WH$$

Where

FEI   =Female Earning in informal sector

FI   =Family Income

FS   =Family Size

WH   =Working Hours

Ui   = Random error

$$\beta 0, \beta 1, \beta 2, \beta 3$$

Where female earning in informal sector is our dependent variables and the independent variables are working hours, family income, family size.

For this we use the simple regression model. Data has analyzed using statistical package for social scientists (SPSS). The regression equations have also estimated with OLS regression model for comparison of female earnings in formal and informal sector.

RGRESSION RESULTS

Regression results are shown in table 1. All coefficients are the positive sign. All coefficients are also statistically significant.

5.1   Quantitative Analyses Of Informal Sector

In quantitative analysis we show the results of Female earnings in Informal Sector through this table no.1.

Table No.1: Regression Results of female earnings in informal sector

Variables	Standardized β	t-values	Significance
Constant		.048	.962
Family Income	.730	11.742	.000
Family size	-.229	-3.600	.001
Hours	.205	3.224	.002

Source: Survey

R Square	Adjusted R Square	F Test
.630	.619	54.546

Explanation

Female earning in informal sector is our dependent variable in this study and significantly dependent upon the family Income, Family size, working Hours**.** When there is increase in family income the female earnings increases. When the family size will increase the female earning will decrease. Working hours are also positively related with the dependent variable. When there is increase in working hours the total earning will also increase. R square shows the goodness of fit and its value is 0.630 and the value of adjusted R square is 0.619. T test is used to check the significance of the β's. Where β's are significant when the value is greater than 2. Here our result shows that all β's are significant. F test also check the significance of the overall model.

Quantitative Analyses of Formal Sector

In quantitative analysis we show the results of Female earnings in Formal Sector through this table no.2

Table no.2: Regression results of female earning in formal sector

Variables	Standardized β	t-values	Significance
Constant		-6.152	.000
Type of Inst	.297	3.795	.000
Age	.338	4.335	.000
Education	.169	2.061	.042
Response of family	.254	3.274	.001
Opinion	.206	2.596	.011

Source: Survey

Square	Adjusted R Square	F Test
.467	.433	13.599

Explanation

Female earning in formal sector is our dependent variable in this study and significantly dependent upon the type of institution, age, education, role of women and opinion. Type of institution is significant and positively related with the female earning. When there is increase in types of institution female learn more skills and increases the earnings. Age is also significant and positively related with the female earning. Education is significant and also positively related with the dependent variable. When the level of education is high the female earning will also be high. Family response is significant and also positively related with the female earning. Better family response will causes the higher level of female earning. Opinion about business is also significant and positively related with female earning in formal sector. If the opinion about job will good then chances of earnings will be high. R square shows the goodness of fit and its value is .467 and the value of adjusted R square is 0.433. T test is used to check the significance of the β's. Where β's are significant when the value is greater than 2. Here our result shows that all β's are significant. F test also check the significance of the overall model.

5.3   Qualitative analysis of formal and informal sector Comparison

Table No.1   Age

Age of respondent in formal sector			Age of respondent in Informal sector		
Age	Frequency	Percent	Age	Frequency	Percent
15-20	100	10.0	15-20	220	22.0
20-39	560	56.0	20-39	500	50.0
40-49	290	29.0	40-49	240	24.0
50-59	50	5.0	50-59	40	4.0
Total	1000	100		1000	100

Source: Survey

Explanation:

This table shows the distribution of the respondent's monthly earnings in formal and informal sector. Ten percent female earn in the age of 15-20 in formal sector and 22.0% in informal sector. Fifty six percent female earn in the age of 20-39 in formal sector and 50% in informal sector. Twenty percent female earn in the age of 40-49 in formal sector and 24% in informal sector. Five percent female earn in the age of 50-59 in formal sector and 4% in informal sector.

Table No.2   Education

Education of respondent in formal sector			Education of respondent in Informal sector		
Education	Frequency	Percent	Education	Frequency	Percent
Primary	30	3.0	Primary	160	16.0
Metric	80	8.0	Metric	110	11.0
Intermediate	190	19.0	Intermediate	110	11.0
Graduation	110	11.0	Graduation	130	13.0
Master	390	39.0	Master	230	23.0
Above master	190	19.0	Above master	20	2.0
Uneducated	10	1.0	Uneducated	240	24.0
Total	1000	100		1000	100

Source: Survey

Explanation:

This shows the respondents education which is 3% in the Primary education in formal sector and 16% in informal sector. Eight percent are getting education of Metric in formal sector and 11% are in informal sector. In formal sector 19% are getting education of Intermediate and 11% in formal sector. Eleven percent are getting education of Graduation in formal sector and 13% in informal sector. Thirty nine percent have Master education in formal sector and 23% have in informal sector. Nineteen percent have education of above master in formal sector and 2% in informal sector and 1% female is uneducated in formal sector and 24% in informal sector.

Table No.3   Opinion about Job

Opinion about women job in formal sector			Opinion about women job in Informal sector		
OJ	Frequency	Percent	OJ	Frequency	Percent
Favorable	870	87	Favorable	910	91
Unfavorable	130	13	Unfavorable	90	9
Total	1000	100		1000	100

Source: Survey

Explanation:

This table shows that 87% female are in the favor of opinion about women's job in formal sector and 91% are in the favor of informal sector and 13% are unfavorable for women's job in formal sector and 9% are in informal sector.

Table No.4   Type of Institution

Type of institution from where they got skill in formal sector			Type of institution from where they got skill in informal sector		
TOI	Frequency	Percent	TOI	Frequency	Percent
Govt	910	91.0	Govt	200	20.0
Private	90	9.0	Private	800	80.0
Total	1000	100		1000	100

Source: Survey

Explanation:

This table shows that 91% female get their skills from Government Institute in formal sector and 20% in informal sector and 9% female get their skill from Private Institution and 80% in informal sector.

Table No.5   Response of Family

Response of your family in formal sector			Response of your family in Informal sector		
POF	Frequency	Percent	ROF	Frequency	Percent
V. Supportive	400	40.0	V. Supportive	680	68.0
Supportive	440	44.0	Supportive	220	22.0.
Indifferent	120	12.0	Indifferent	30	3.0
Non supportive	30	3.0	Non supportive	50	5.0
React badly	10	1.0	React badly	40	4.0
total	1000	100.0		1000	100.0

Source: Survey

Explanation:

This table shows that 40% response of the family is very supportive for formal sector and 68% in formal sector. Forty four percent response of the family is supportive for formal sector and 22% in informal sector. Twelve percent response of the family is indifferent in formal sector and 3% in informal sector. Three percent are non supportive in formal sector and 5% in informal sector. One percent response of the family is badly reacted in formal sector and 4% are in informal sector.

Table No.6   Family Size

Family size in formal sector			Family size in Informal sector		
FS	Frequency	Percent	FS	Frequency	Percent
1	0	0.0	1	10	1.0
2	30	3.0	2	40	4.0
3	30	3.0	3	20	2.0
4	110	11.0	4	100	10.0
5	150	15.0	5	150	15.0
6	170	17.0	6	130	13.0

7	160	16.0	7	170	17.0
8	210	21.0	8	70	7.0
9	70	7.0	9	80	8.0
10	70	7.0	10	90	9.0
11	0	0.0	11	30	3.0
12	0	0.0	12	100	10.0
13	0	0.0	13	10	1.0
Total	1000	100.0		1000	100.0

Source: Survey

Explanation:

According to the survey results table 6 shows that there are 2 members in the family that are 3% in formal sector and 4% in informal sector. There are 3% families in which there are 3 members in formal sector and 2% families in informal sector. There are 11% families in which there are 4 members in formal sector and 10% families in informal sector. In formal sector the minimum family size is 2 and in informal sector the minimum family size is 1 and the maximum family size in formal sector is 10 and in informal sector the maximum family size is 13.

Table no.7   Family Income

Family income in formal sector			Family income in Informal sector		
FI	Frequency	Percent	FI	Frequency	Percent
1000-10000	120	12.0	1000-10000	390	39.0
10000-20000	120	12.0	10000-20000	200	20.0
20000-40000	420	42.0	20000-40000	230	23.0
40000-80000	280	28.0	40000-80000	200	20.0
80000-120000	50	5.0	80000-120000	10	1.0
Total	1000	100.0		1000	100.0

Source: Survey

Explanation:

This table shows that family income from 1000-10000 have 12% in formal sector and 39% in informal sector. From 10000-20000 the family income is again 12% in formal sector and 20% in informal sector. From 20000-40000 the family income increases at 42% in formal sector and 23% in informal

sector. From 40000-80000 the family income is 28% in formal sector and 20% in formal sector. From 80000-120000 the family income is 5% in formal and 1% in informal sector.

Table No.8   Working Hours

Working hours in formal sector			Working hours in Informal sector		
H	Frequency	Percent	H	Frequency	Percent
2	0	0.0	2	40	4.0
3	0	0.0	3	30	3.0
4	10	1.0	4	120	12.0
5	120	12.0	5	210	21.0
6	170	17.0	6	110	11.0
7	240	24.0	7	100	10.0
8	400	40.0	8	170	17.0
9	20	2.0	9	120	12.0
10	40	4.0	10	50	5.0
11	0	0.0	11	0	0.0
12	0	0.0	12	50	5.0
Total	1000	100.0		1000	100.0

Source: Survey

Explanation:

This table shows the working hours of female earnings. One percent female work 4 hours in formal sector and 12% female work in informal sector. Twelve percent female work 5 hours in formal sector and 21% in informal sector. The minimum working hours of female earning in formal sector are 4 and in informal sector the minimum working hours are 2 and the maximum working hours in formal sector are 10 and in informal sector maximum working hours are 12.

CONCLUSION

The study has find out the comparison of female income in formal and informal sector. With the help of OLS regression model, results have been obtained. Percentage has also been calculated. The dependent variables are female earnings in formal sector and female earnings in informal sector. Results show that informal sector is easily accessible for females as a source of

income. Results show that 40% response of the family is very supportive for formal sector and 68%   in formal sector. Results also shows that 87% female are in the favor of opinion about women's job in formal sector and 91% are in the favor of informal sector and 13% are unfavorable for women's job in formal sector and 9% are in informal sector. Determinants of female earnings are different in formal sectors and informal sectors. Female earnings in formal sector is determined by type of institution from where you got skill, age of respondents, education and response of the family, opinion about job and Female earning in informal sector is determined by family income, family size, and working hours. Type of institution from where you got skill, age, education, response of the family, opinion about job, family income and working hours are positively affect the dependent variables and only family size is negatively affect the dependent variable.

POLICY IMPLICATION

The following policies may be adopted for the female earnings in formal and informal sector:

1. The government should establish special training institutes for household workers that provide skill for female workers.
2. The government should give the free education to the females so that they can easily get job.
3. The government should make the best policies for the working time for females.

REFRERNCE

Jamali, K (2009) "The Role of Rural Women in Agriculture and its Allied Fields: A Case Study of Pakistan" European Journal of Social Sciences – Volume 7, Number 3 (2009).

Sikod, F (2007) "Gender Division of Labor and Women's Decision-Making Power in Rural Households in Cameroon" Africa Development, Vol. XXXII, No. 3, 2007, pp. 58–71   © Council for the Development of Social Science Research in Africa, 2007   (ISSN 0850-3907).

Rodgers, Y.D.M (1999) "Protecting Women and Promoting Equality in the Labor Market:Theory and Evidence" November 1999. The World Bank, Development Research Group/ Poverty Reduction and Economic Management Network.

Paula, A. D, Scheinkman, J.A (2006) "The Informal Sector∗" First version: January 11, 2006,   This Version: July 12, 2006.

Akintoye, I. R (2008) "Reducing Unemployment through the Informal Sector: A Case Study of Nigeria" European Journal of Economics, Finance and Administrative Sciences ISSN 1450-2275 Issue 11 (2008) © Euro Journals, Inc. 2008.

Bhattacharya, P. C (2007) "Informal Sector, Income Inequality and Economic Development" September 2007, Discussion Paper 2007/09.

Granström, S.C (2009) "The informal sector and formal competitiveness in Senegal" Department of Economics at the University of Lund 2009:8,   Minor Field Study Series.