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The Impact of Globalization on Rural Poverty in Pakistan

Aftab Anwar¹, Abdul Qayyum Mohsin²

Abstract

Globalization can contribute very much to reduce poverty both directly and by accelerating growth. However its impact to reduce poverty in developing countries is very limited because of domestic policy failures. For an economist study of relationship between globalization and rural poverty is very important that how much the role of globalization on rural poverty is supporting for its reduction. To know about its impact a study was conducted on the basis of time series secondary data. After the research it is found that impact of globalization on rural poverty was insignificant whereas there was positive relationship between agricultural product, literacy rate and globalization. Along with these, agricultural product and literacy rate were highly correlated but there exist very weak relationship between globalization and rural poverty. It is also found that impact of agriculture products and literacy rate to reduce rural poverty was significant. In the end it is concluded that impact of globalization to reduce rural poverty is still insignificant but its impact to improve agricultural products and literacy rate is very much striking. So during the formulation and execution of different policies it is necessary for authorities to capture the most of benefits of trade with this global world to wipe out poverty from the country.

Keywords: Globalization, Rural Poverty, Agriculture Product, Literacy Rate.

Introduction

In developing countries consistent increase in poverty has become a critical international issue for the attention of world's donor agencies. The prevalence of poverty has been seen more in developing countries as compared to developed countries. Thirty percent of the starving people live in South Asia. This is general understanding that due to injustice distribution of financial resources the gap between different income levels of the people are increasing especially in developing countries. It is also noted that share of developing countries in poverty has declined from 28.3 percent in 1987 to 24 percent in 1998 based on \$1 per day and from 61 percent in 1987 to 56 percent in 1998 based on \$2 per day, excluding Sub Saharan Africa, Eastern Europe and Central Asia (Government of Pakistan, 2004).

Within Asia and the Pacific Region, the progress in poverty reduction has varied widely. The headcount ratio dropped dramatically for East Asia and the Pacific, from a high of 29.4 percent in 1990 to 14.5 percent in 2000, but the decline was more modest in South Asia 41.5 percent to 31.9 percent where the economy grew more slowly and population growth had been more rapid. Poverty as measured by the headcount ratio was higher in South Asia than in any other region of the world, except Sub-Saharan Africa. Poverty is basically a rural problem in South Asia. In all countries of this sub-region, poverty is disproportionately

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concentrated in rural areas. The headcount ratio is also higher for rural areas. Rural poverty trends vary considerably by country. In several South Asian countries, the gap between rural and urban poverty is widening over time. These countries include India, Bangladesh, and Pakistan (Thapa, 2004).

Poverty headcount percentage was 36.3 for rural areas and 22.4 for urban areas in 1998-99 as calculated by Federal Bureau of Statistics during Pakistan integrated household survey. Poverty also depends upon on the family size and numbers of earning persons in the family. On average there are five members of a poor family less than 18 years of their age whereas in non-poor families number is three. Average number of births among poor woman of age 15-49 is nearly five whereas number is four for non-poor families. More than one third of the poor households are headed by aged persons who are dependent on transfer incomes. Important factor which separate the poor from the non-poor is education, in poor household percentage of literate heads is 27 while for non-poor households it is 52 and percentage of poor households with no lavatory is 76 compared to 53 percent of non-poor. Poverty is higher in those families in which head is unskilled agricultural workers like heads engaged in transport, service, production and sales occupation (Government of Pakistan, 2001).

In India 44.2 percent of its population is living below \$1 a day and 86.2 percent is living below \$2 a day from the total of 1010 million peoples whereas in Pakistan 31percent of its population is living below the \$1 a day and 84.7 percent is living below \$2 a day from the total of 138 million peoples. Poverty gap at \$1 in India is 12 and in Pakistan it is 6.2 whereas at \$2 in India poverty gap is 41.4 and in Pakistan

It is very important question that how poverty can be reduced and what force can be much fruitful for the alleviation of poverty. It is also important to think about this one because more than 80% of all the poverty groups in fewer developing countries live in the rural areas. So it is need to formulate ways and means of bringing the benefits of development to the rural poverty groups (Gudgeon, 2001).

According to Rural Poverty Report 2001, it is estimated that 1.2 billion people are under the poverty line i.e. \$1 per day and from these 75 percent are rural. On one side entrance of rural Poor's to assets, technology and institutions is major factor behind poverty reduction, on the other side market integration is playing an integral role in rural poverty reduction (International Fund for Agricultural Development, 2001).

Poverty can be alleviated only if a country use 50 percent of its total public investment for rural sector such as for agriculture and agro-based industry ,irrigation, rural infrastructure etc consistently for the 10 years and within 6 year country will be in position to get fruitful results regarding poverty alleviation under the era of globalization (Janaiah, 2006).

One of the most disturbing global trends of last two decades was that a number of countries with around 2 billion people are in danger of becoming irrelevant to the world economy. Incomes in these countries have been falling, poverty has been rising, and they participate less in trade today than they did 20 years ago. Developing countries exports of primary goods have been shifted to manufactures and services. This change support to poverty reduction which was found in Chinese provinces, Indian states, Bangladesh and Vietnam but it is also found that integration would not have been feasible without a wide range of domestic reforms covering governance, the investment climate, and social service provision (World Bank, 2002).

The more important impact of globalization was indirect by increasing employment opportunities in the non-farm non-tradable sectors. The net direct impact on employment opportunities in the tradable sectors has been positive, as the new opportunities have balanced the job losses that unavoidably occurred through structural changes brought about by globalization. Public policies ensure sufficient safety for the workers displaced by the structural changes associated with globalization and also to enable poor people to take better advantage of new employment opportunities opened up by globalization. Instead of globalization forces ability of globalization to alleviate poverty depends upon the resource mobilization and public expenditure (Osmani, 2005).

It is difficult for poor to get benefits from the integration of economies due to poor access to health and education. Due to globalization it is possible to increase the inequality within a country. The numbers of poor is more in agricultural and related sectors as compare to the other sectors. Trade and investment policies alone can't achieve the target of poverty alleviation. Other policies like good governance, well functioning bureaucracies and regulation contract enforcement and protection of property rights can also be used for this purpose. Role of globalization to reduce poverty in Pakistan is still insignificant even after the globalization (Malik, 2006).

From above discussion it is clear that poverty is more in rural areas as compare to urban areas which also vary from region to region and even within a country it also vary between different provinces. The study is related to the impact of globalization on rural poverty because more of population is living in rural areas with fewer facilities for the poor as compare to urban areas. Role of globalization to reduce poverty is not significant which is against its objectives. On one side we see that world is more advance with reference to its views about life style, profession, etc and people have more things for choice as compare to some decade earlier but on the other side poverty is still increasing and every coming day bring more rigorous conditions for the poor. Variables that will be discussed in the study are agricultural product and literacy rate to know all about the causes of low living standard of the rural community and to check this one that why the role of globalization to reduce poverty is not significant. The proposed study will be focused on the relationship of these variables with poverty and globalization.

Materials and Methods

Methodological techniques of data collection and analyzing the observations play a significant role in research whereas the methodology refers as the logic to scientific procedure. This study is confined to the rural area of Punjab because not only Pakistan for its exports depends upon Punjab but also other provinces for their livelihood depend upon this large agricultural territory. It is also important because more than half of the population lived in Punjab and among these more population lived in rural areas. In this study time series secondary data covering the period 1985-86 to 2010-11 is used for quantitative analysis that is collected from different government, semi government organizations and from internet.

Methods of Analysis

In evaluating the quantitative effects of globalization on rural poverty, the data is analyzed statistically and is reported in the form of tables. Standard statistical techniques like multiple regression and t-test are employed. Separate procedures to achieve the objectives are used.

- For objective no. 1, significance of globalization is checked through different statistical techniques like standard error test, F test, t statistics, R square and p value.

- For objective no.2, the relationship between the explanatory variables will be checked and high level of correlation between these will prove the betterment in their lives.

The selected variables for the analysis are agricultural product in metric tons of four major crops i.e. wheat, rice, cotton, and sugarcane, and literacy rate. Agricultural product of major crops is selected because these crops are cultivated in most of the area and only small part of land is used for the cultivation of other crops whereas knowledge of new methods of cultivation and technology is important for more production with least possible cost. So due to this reason variable of literacy rate is selected.

The model specified for the analysis is as under:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \mu_i$$

Where

Y = Rural poverty headcount index

X₁ = Agricultural product (000 metric tons) of four major crops i.e. Wheat, Rice, Cotton, Sugarcane

X₂ = literacy rate (percentages) μ_i = Random error or disturbance term.

Whereas $\beta_0, \beta_1, \beta_2$ are parameter values which point out the relationship between dependent variable and independent variables. Among these parameters β_0 is known as intercept or poverty level which is not affected by the independent variables and β_1, β_2 are regression coefficients that indicate the change in dependent variable due to unit change in independent variables. Standard error test of least square estimates is used to check the significance of the parameters.

Null Hypothesis H₀: $\beta_i = 0$, Estimates are not statistically significant. It means that contact of independent variables like agricultural product and literacy rate on rural poverty is not considerable and insignificant.

Alternative Hypothesis H₁: $\beta_i \neq 0$, Estimates are statistically significant. It means that contact of independent variables like agricultural product and literacy rate on rural poverty is considerable and significant

During this study 5 percent level of significance is used for the statistical analysis.

Method used for the acceptance or rejection of the hypothesis is as under.

If S.E (β_i) > $\frac{1}{2}$ (β_i) then we accept the null hypothesis that the estimate are not statistically significant and vice versa.

To check the multicollinearity problem, coefficient of correlation is calculated by using the following formula.

$$r = \frac{(n \sum X_1 X_2 - \sum X_1 \sum X_2)}{\sqrt{\{n \sum X_1^2 - (\sum X_1)^2\} \{n \sum X_2^2 - (\sum X_2)^2\}}}$$

Multicollinearity problem arises when the explanatory variables are not independent of each other or it arises when there is some sort of relationship two or more explanatory variables and in the presence of this problem we can not estimate the true value of β_1 and β_2 .

Dummy Variable

It is common observation that in regression analysis dependent variable is influenced both by quantitative and qualitative variables. So like quantitative variables, qualitative variables should also be included among the explanatory variables. For this purpose we construct an

artificial variable in which one indicates the presence of that attributes whereas zero indicates the absence of that quality.

According to the officials of planning division Pakistan year 1990-91 can be considered as the starting year for the globalization. So we introduce a dummy variable with numerical value 0 for the absence and 1 for presence of globalization and in this way model is as under.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 D1 + \mu_i$$

Here

D1 is a dummy Variable with values 0 and 1 whereas β_3 indicate the impact of globalization on rural poverty.

Results and Discussion

The primary objective of this study was to determine the impact of globalization on rural poverty where as secondary objective was to know about the improvement in living standard of the rural community.

Table 1: Estimated Values of Rural Poverty, Agricultural Product and Literacy Rate with Dummy Variable (Globalization)

	Coefficients	Standard Error	t-Stat	P-Value
β_0	18.6774	4.8429	3.8566	0.0013
β_1	0.0007	0.0002	2.8582	0.0109
β_2	-0.5602	0.3440	-1.6286	0.1218
β_3	-1.9836	2.6934	-0.7364	0.4715

Tables 1 present the analysis of rural poverty, agricultural product, literacy rate and dummy variable globalization in which standard error test indicate the significance of agricultural product and insignificance of literacy rate and dummy variable globalization. Low p value in case of β_1 is less than 0.05 and high in case of β_2 and β_3 also verify the results. F and t-statistics also support the results. It means that the Impact of literacy rate and globalization on rural poverty was insignificant but there was significant relationship between rural poverty and agricultural product. Low value of adjusted R square i.e. 0.36 indicates that 36 percent variation in rural poverty was due to agricultural product, literacy rate and globalization whereas 64 percent variation in rural poverty was due to other variables that are not included in the model like lack of health, educational facilities, lack of employment opportunities, lack of industry etc.

Table 2: Estimated Values of Rural Poverty and Dummy Variable (Globalization)

	Coefficients	Standard Error	t-Stat	P-Value
β_0	28.0860	2.0557	13.6626	0.0000
β_3	3.3096	2.3551	1.4053	0.1761

This table present the analysis of rural poverty and dummy variable globalization in which value of adjusted R square is very low i.e. 0.046. So it indicates statistically insignificance of the dummy variable that the impact of globalization on rural poverty was insignificant. Value of standard error statistics is greater then the half of its coefficient value and high value of p i.e. 0.17 also support the results. F and t test also support the same results. So we accept the null hypothesis that the impact of globalization on rural poverty is insignificant. Here value of adjusted R square is very much low that is 0.0465, it means that only 5 percent variation in rural poverty was due to globalization whereas around 95 percent variation was due to the factors other than the globalization. This also verifies the above results that the impact of globalization on rural poverty was insignificant.

Table 3: Estimated values of Agricultural Product, Dummy Variable (Globalization) and Rural Poverty

	Coefficients	Standard Error	t-Stat	P-Value
β_0	15.7881	4.7086	3.3530	0.0035
β_1	0.0003	0.0001	2.8158	0.0114
β_3	-2.2055	2.8108	-0.7846	0.4428

Table 3 present the analysis of agricultural product, globalization and rural poverty. Here according to correlation value 0.69 both the variables i.e. agricultural products and globalization are significantly correlated with each other which is positive sign for improvement in the living standard of the rural community. The impact of agricultural product on rural poverty was significant as it is clear from the results that the standard error of agricultural product is less than the half of its coefficient value and p value is also small i.e.0.01 which is less than 0.05 but impact of globalization on rural poverty was still insignificant because in this case standard error test, t test and p value support the result to accept the null hypothesis. Here value of adjusted R square is 0.3012; it means that only 30 percent variation in rural poverty was due to agricultural product and globalization whereas remaining was due to other factors.

Table 4: Estimated values of Literacy Rate, Dummy Variable (Globalization) and Rural Poverty

	Coefficients	Standard Error	t-Stat	P-Value
β_0	20.0877	5.6969	3.5260	0.0024
β_2	0.2977	0.1986	1.4984	0.1513
β_3	0.2933	3.0425	0.0964	0.9242

Table 4 present the analysis of literacy rate, globalization and rural poverty. Here according to correlation value 0.66 both the variables i.e. literacy rate and globalization are significantly correlated with each other whereas impact of literacy rate on rural poverty was insignificant as it is clear from the results that the standard error of literacy rate is greater the half of its

coefficient value and p value is also large i.e.0.15 which is greater than 0.05 and impact of variable 2 i.e. globalization on rural poverty was also insignificant because standard error test, t test, and p value support the acceptance of null hypothesis that the variables are statistically insignificant.

Table 5: Estimated values of Dummy Variable (Globalization) and Agricultural Product

	Coefficients	Standard Error	t-Stat	P-Value
β_0	31140.8240	2878.5171	10.818	0.0000
β_3	13965.6716	3297.7556	4.2349	0.0004

Table 5 present the analysis of dummy variable Globalization and agricultural product in which at 0.05 and 0.01 level of significance calculated values of t-test lies in critical region whereas calculated value of F statistic that is 17.93 also lies in critical region at 0.05 and 0.01 level of significance. So we reject the null hypothesis and accept the alternative hypothesis that the model is statistically significant. Standard error test and low p value also support the results that there is significant impact of globalization on agricultural product. Value of adjusted R square is 0.4585; it means that around 46 percent variation in agricultural product was due to globalization whereas remaining variation in dependent variable was due to the factors other than the globalization.

Table 6: Estimated values of Dummy Variable (Globalization) and Literacy Rate

	Coefficients	Standard Error	t-Stat	P-Value
β_0	26.8640	2.2994	11.6829	0.0000
β_3	10.1310	2.6343	3.8458	0.0011

Table 6 present the analysis of dummy variable Globalization and literacy rate in which value of adjusted R square is 0.4081 and at 0.05 level of significance t-test and F ratio indicates the significance of the independent variable whereas standard error test and low p value also support the results that there is significance impact of globalization on literacy rate and if we consider 0.01 as level of significance then also all the test verify the above results that there is significance impact of globalization on literacy rate.

From whole of this analysis it is clear that the impact of globalization on rural poverty was insignificant which also support the study done by Malik (2006) and Anwar (2003) but its impact on agricultural product and literacy rate was significant. Here correlation between globalization and agricultural product is 0.69 whereas between globalization and literacy rate it is 0.66 but correlation between agricultural product and literacy rate is very high i.e. 0.93 which is positive indication for the improvement in the living standard of rural community. Weak relationship between globalization and rural poverty i.e. 0.31 also support the results that the impact of globalization on rural poverty was insignificant.

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Impact of Agriculture Growth on Poverty: A Co-integration Analysis for Pakistan

Sikander Pervez¹ and Sayed Badar-ul-Husnain Rizvi²

Abstract

Poverty is out of control in the rural areas of the Pakistan, where people are in a state of deprivation with regards to incomes, clothing, housing, health care and education facilities. According to economics survey 2009-10, 60 percent of the population of Pakistan living in rural areas and is directly or indirectly depends on agriculture for their income. Agriculture sector of Pakistan contributes in GDP is approximately 22 percent while it provides employment at least 45 percent of the total population. The study analyzed the impact of agriculture growth on poverty reduction in Pakistan extracting 31 time series annually observations. The study employed Johansen co integration methodology to test for the existence of a long run relationship between variables. The study concluded that agriculture growth, Employment in Agriculture, GDP, and Trade Openness has negative and significant impact on poverty in long run. To alleviate poverty, it is suggested that Pakistan enhance the productivity of the agriculture sector through the provision of a series of inputs including provision of easy credit to the small farmer, availability of quality fertilizers, pesticides, and by farmer education.

Key words: Agriculture Growth, GDP, Trade Openness, Employment, Poverty, Pakistan, unit root, co-integration, Error Correction

Introduction

Agriculture sector plays an important role in economic development and poverty reduction in developing countries. Agriculture also contributes in the economic growth through the provision of food and employment. With the trade liberalization agricultural export is the important source of income in developing countries. Income of a large proportion of population depends on agriculture and agriculture growth can be a key to promote overall growth and poverty reduction. (World Bank, 2008). Globally, the poverty has been declined during the past thirty years, and credit for this achievement goes to Agriculture Growth (World Bank, 2008; Dewbre, *et al*, 2011).

Pakistan is an agrarian economy where 62% population is currently living in rural areas and directly depends on agriculture by 2010. It is also the largest sector of the economy and its share in GDP and employment is 21 percent and 45 percent respectively. Over the Past six years, In Pakistan agriculture has grown at average rate 3.7 percent per annum. During the FY 2009-10 the performance of agriculture sector has been weaker. Its target was 3.8 percent but it can grow by 2.0 percent on in FY 2009-10. (Economic Survey of Pakistan 2009-10)

Globally, about 90 percent of the developing world's poor people lived in Asia or Sub Saharan Africa. Less than 1 percent of the poor lived in the Middle East and North Africa and 7 percent live in Latin America and the Caribbean. At the beginning of the twenty first

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century, over 1.2 billion people are living in extreme poverty, subsisting on less than 1\$ a day. This proportion has fallen from 32 percent in 1987 to 25 percent in 1998 (World Bank 2000). Food and Agriculture Organization (FAO) confirms that the number of the people at world level reached 963 million, or approximately 15 percent of the estimated of the world population. This represents an increase of 142 million over the figure for 1990-92. Poverty is measured by three methods:

- 1) Head Count Ratio: it is proportion of population below the national or international poverty line.
- 2) Poverty gap ratio: it is measure of poverty obtained by multiplying head count by the average distance at which the poor are from the poverty line.
- 3) Severity of poverty measure: where the weight given to each poor person is relative to the square of the income loss of the poor from the poverty line.

Different studies explained different phenomenon with respect to Agriculture Growth, Trade openness and poverty reduction. Country Partnership Strategy (CPS) progress report for Pakistan by World Bank (2011) shows that, poverty in Pakistan experienced a decreasing trend as 34.5% since 2001 and 17.2% in 2008. It is the largest sector of Pakistan with respect to employment but due to lack of studies on this topic there is a need to explore this issue in further detail especially for Pakistan.

The purpose of this study is to examine the impact of Agriculture growth, trade openness, GDP and employment in agriculture on poverty reduction in Pakistan. The co-integration method is applied to estimate the model. Annual data from 1980-2010 is selected for analysis. Augmented Dicky fuller test is used for stationarity check and then difference taken if necessary. These variables are not investigated in this way.

This paper will follow in the sequence. Section 2 sheds light on literature review which provides empirical evidence. Section 3 provides theoretical explanation about relationship between variables and modeling process. Section 4 contains on material and modeling. Section 5 contains on estimation results and interpretation of findings. Finally in section 6 conclusions is drawn on the basis of results.

Literature Review

Lin & Piese (2003) tried to find the relation between Agriculture Growth and Poverty reduction in Africa, Asia and Latin America. Pooled data with 121 observations has been used. Causal chain model has also been used on this data. Findings of the study indicate that it has negatively related to each other.

Saboor, (2004) tried to find the trend analysis of rural poverty inequality and Agriculture. Time series data from 1990-2001 has been used for this purpose. Axiomatic approach was applied. The finding of the study suggested that Agriculture growth and poverty is negatively related while income inequality and poverty are positively related to each other.

Akram *et al* (2008) tried to explore the impact of Agriculture credit on Growth and Poverty in Pakistan. Time Series data from 1975-2005 and Error Correction Model has been used to analysis between them. Result of the study shows that the availability of irrigation of water, agriculture credit, fertilizer, seed and tractors significantly impacted in reducing poverty.

Shepher & Prowse (2009) tried to explore the impact of Agriculture Growth on income poverty. Panel data has been used from (1990-2005). Gravity model approach has been used. Findings of the study show that impact of Agriculture Growth on income Poverty transmitted via prices (higher producer prices, lower food prices, higher wage).

Khan & Sattar (2010) tried to explore the impact of trade on poverty in Pakistan. Secondary Time series data is from 1973-2007 has been used. Error Correction Model was used and finds a two way relationship between trade and growth. Findings of study suggested that trade and Growth are co integrated with each other. Findings of study also show that Growth has significant impact on trade but not on poverty, Trade has significant impact on Growth and Growth decreases the Poverty.

Hassin, *et al* (2010) tried to explore the relation between Agriculture Trade Liberalization, Productivity Gain and Poverty Alleviation in Tunisia. The model was applied to Tunisian data using social accounting matrix of 2001 and the 2000 household expenditures surveys and CGE modeling was used. Findings of the study show that Poverty is found to decline under Agricultural and full trade liberalization.

Christiaensen, *et al* (2010) tried to find the relation between the Role of Agriculture in Poverty Reduction in sub-Saharan Africa. Cross country data and OLS technique was applied in this paper. Findings of the study suggested that both are negatively related to each other.

Cuong, G. (2010) tried to explore the relationship in Agriculture, Poverty and Inequality Reduction in Vietnam. Data used in this paper are from Vietnam Household Living Standard Surveys 2002 and 2004. Fixed-effects regressions have been used. The results of the study show that the production of agriculture helps to households increase per capita expenditure and per capita income by around 4.7 percent and 7.3 percent.

Modeller *et al* (2012) tried to find the Impact of Trade Liberalization on Growth and Poverty in Ethiopia. Social Accounting Matrix (SAM) data of 1999/2000 has been used. CGE Model has been applied. Findings of the study indicate that the short run impact of liberalization on poverty level was positive and in the long run impacts of instantaneous liberalization on poverty indices are decreasing in the long run.

Literature reviewed above enables us to understand the impacts of agriculture growth. And according to different scholars who analyzed the empirics of different countries, it can be proved that agriculture growth causes to decrease in poverty. In Pakistan, past studies have been estimated for the period up to 2008 by using OLS, Multi-variant regression or by co integration but in this study we will use not only variable agriculture growth but also use trade openness, employment in agriculture and GDP and we not only estimate long run relationship of these variables but also we will find short run adjustment of the coefficients for these variables.

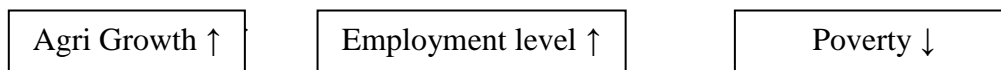
Theoretical Framework

As the study is, supposed to measure the impact of agricultural growth on poverty. So, different studies explain that there is a significant relationship between agricultural growth and poverty. [Saboor, A. (2004), Bakhshoodeh and Zibaei (2007), Hassine, Robichaud and Decaluwe (2010), Christiaensen, Demery and Kuhl (2010)]. Channels are important to highlight the significance of the relationship of the variables. The way through which the agriculture growth affects the poverty, is explained as following:

Variables Justification

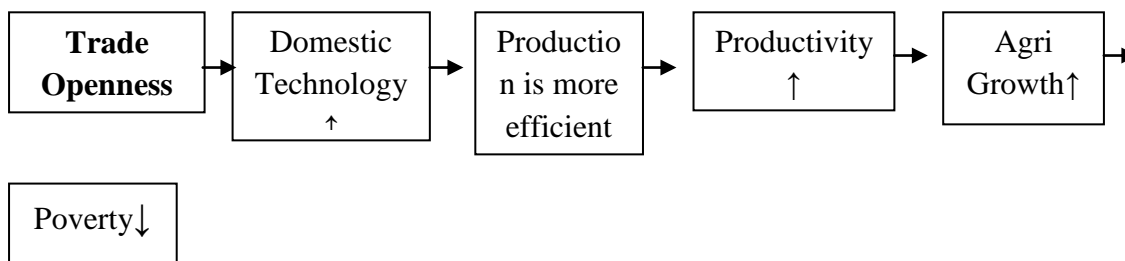
i. Agriculture Growth

As Agriculture Growth increases leads an increase in the number of labors yet this lead in their employment level which in turn leads a decrease in poverty. In literature Lin, Thirtle and Wiggins (2001).



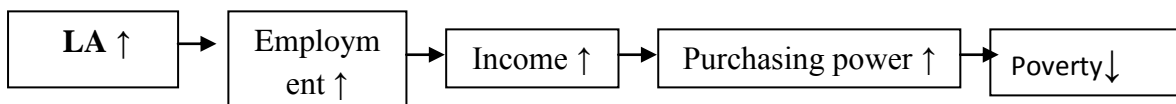
ii. Trade Openness.

Trade Openness is also a key factor to reduce poverty. So Trade Openness leads to increase our domestic technology and our production will more efficient and then our productivity is raised then production increase after that our Agriculture Growth increase and then our Poverty reduce and trade openness is measured by sum of import and export with ration of GDP(X+M/GDP). In literature Khan and Sattar (2010).



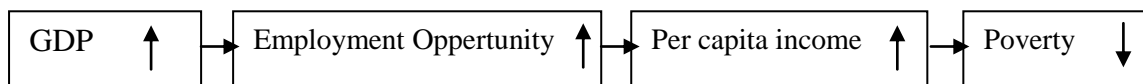
iii. Agricultural labor force

As Labor in Agriculture increase the employment level of people in Agriculture increases then their income level increases, their purchasing power increases and hence poverty decreases. In literature Brajesh Jha (2003).



iv. GDP:

GDP is also a key factor in reducing poverty. So as GDP increases employment opportunity for people increases hence income of the people increase and then poverty decreases. In literature Bhutto(2007).



From the above discuss theoretical framework, we are able to understand the process through which agricultural growth affects the poverty. On the base of this theoretical framework and from literature we build a model and estimate it by applying co integration.

Material and Modeling

Model

Variables are selected on the base of selected studies given in literature review and time series data from 1980 to 2010 is obtained from Economic survey of Pakistan, World Development indicator, Food and Agriculture Organization and Handbook of Statistics State Bank of Pakistan. But due to unavailability of Poverty data in Pakistan we use same growth rates of some different years. For regression analysis we develop a model in which we took poverty as dependent variable and all other mentioned variables as independent

The functional form of proposed Model is:

$$Poverty = f(Agriculture\ Growth, Trade\ Openness, GDP, Labour\ in\ agriculture)$$

The model is:

$$Poverty = \alpha + \beta_1 agrowth + \beta_2 tradeopenness + \beta_3 GDP + \beta_4 labourinagri + \mu$$

Methodology

Unit Root Test

When we deal with a time series the first and primary step is to check whether the original time series is stationary or not. If we want to apply the suitable technique on the original time series then we must be conscious of the order of integration of original time series. Stationarity is also important in the context that if we apply OLS to a non-stationary time series it may results in the spurious regression as well. Unit root test was used to check stationary of time series data. To ensure the unit root in the data Augmented Dickey-Fuller (ADF) Test is used. ADF is an comprehensive form of Dickey-Fuller test. In DF test we suppose that error terms are uncorrelated but if error terms are correlated then ADF is best because it also allows for Serial Correlation to be checked. In Eviews we be able to run ADF in three different condition

- i. ADF with Intercept
- ii. ADF with trend & intercept
- iii. ADF without trend & Intercept (none)

An suitable ADF test specification should be applied according to the character of the data. (Gujarati).

The results are given below in the Table. They are computed by applying ADF test statistic on data I(0). The test confirms that all variables have a unit root problem and they are non stationary at level but stationary at their first difference, therefore, the order of integration of all variables are I(1).

Variables	Intercept only		Intercept and trend only	
	Level	First difference	Level	First difference
	Prob: value	Prob: value	Prob: value	Prob: value
Poverty	0.4602(0)	0.0010(0)***	0.6205(0)	0.0046(0) ***
AG	0.8153(0)	0.0002(0)***	0.4985(0)	0.0017(0) ***
ALF	1.000(0)	0.0057(0)***	0.9927(0)	0.0197(3)**
GDP	0.5432(0)	0.0021(0)***	0.3724(0)	0.0013(2) ***
X	0.4848(0)	0.0002(0)***	0.8616(0)	0.0012(0) ***

[*** indicates that variable are significant at 1 percent. ** indicates that variables are significant at level 5 percent.]

The results in the table reveal that the hypothesis of a unit root can't be rejected in all variables in levels. However, the hypothesis of unit root is rejected in first differences at 0.05 level of significant which indicates that all the variables are integrated of order one I(1), which means all the variables achieve stationarity only after first difference.

Lag Length Criteria:

Lag	LogL	AIC	SC
0	-538.248	37.4654	37.7011
1	-410.662	30.3905	31.8049*
2	-379.825	29.9879*	32.5811

In above table Lag selection criteria have shown. In this table AIC criteria reported that we use two lag but at the same time SC criteria reported that choose just one lag, and we choose SC criteria because Asghar *et al*(2007), Gutierrez *et al*(2007) and Hofman(2007) has empirically proved that SC criteria is best criteria in choosing Lag length so that's why we choose lag length 1.

Co-integration

If we regress two non-stationary time series' on each other it may result in a spurious regression. If original time series is non-stationary then OLS is not a good choice for estimations. OLS is an suitable technique if all the variables are I (0) i.e. stationary at level if not one should check for the possible co-integration relationship between the original non-stationary series 'OLS is for short run relationship while co-integration suggests a long run association between the series'. If the linear combination of two time series having unit root is stationary then we can say that the two time series are co-integrated." (Gujarati: 2004).

If all the variables turn out to be stationary at their first difference i.e. I (1) then Johansen Co-integration test can also be used But if some variables are stationary at their level i.e. I (0) and some at first difference i.e. I (1) then Johansen is also not an suitable method. In such cases where variables are both I (0) and I (1) Autoregressive Distributed Lag model is an suitable technique. It uses two likelihood tests for determining the co integration relations. (Brooks (2002): Haleem *et al*,(2005): Saunders *et. al*, (2001)).

- i. The Trace test
- ii. The Maximum Eigen value test

Results of co integration: Unrestricted co integrating Rank test (Trace)

Null Hypothesis	Eigen value	Trace Statistics	5 percent critical value	Prob**
None*	0.849	104.437	69.818	0.000
At most 1*	0.504	49.436	47.856	0.035
At most 2*	0.443	29.095	29.797	0.060
At most 3*	0.301	12.117	15.494	0.151
At most 4	0.057	1.717	3.814	0.190

Unrestricted co-integration Rank test (Maximum Eigen value)

Null Hypothesis	Eigen value	Max-Eigen value	5 percent critical value	Prob**
None*	0.849	50.001	53.876	0.000
At most 1	0.504	20.341	27.584	0.318
At most 2	0.443	16.977	21.131	0.173
At most 3	0.301	10.399	14.264	0.187
At most 4	0.057	1.717	3.841	0.190

According to above tables both trace test and max Eigen values test eliminate the hypothesis of no co integration. For the elimination of null hypothesis calculated values of both trace test and max Eigen values test must go beyond their respective critical value smooth probability value must be equal to or less than 0.05. At most 1 has null hypothesis that there exists at least one co integration relation and substitute hypothesis that there are more than one co integration relations. Max Eigen values test is incapable to reject null hypothesis at most 1 which means according to max Eigen values test there is at least 1 co integration relation that exists between the variables. Trace test has rejected the null hypothesis at most 1 and at most 2 that there are at least 1 & 2 co integration relations in that order suggesting that there exist at least more than 2 co integration relations. Trace test is incapable to reject at most 2 null hypothesis thus suggests that there exists at least 2 co integration relations. Trace test is more consistent than maximum Eigen values test (Cheung and kai (1993), Liang (2006)). So according to trace test there are two co integration relationships among variables.

Normalized Equation: Normalized Co-integration Coefficient

$$\text{Poverty} = 561.34 - 9.1AG - 5.14 \text{ GDP} - 4.8\text{TO} - 0.011\text{LA}$$

The Normalized co-integration equation reveals that the Agriculture Growth and other variables have negative effect on Poverty. The Agriculture growth coefficient is 9.1 and showing significant, implying in Pakistan, a one percent increase in Agriculture growth while other keep constant contributes 9.1% decrease in Poverty. Similarly, the GDP coefficient is 5.1, and showing significant, implying in Pakistan, one percent increase in GDP while other keep constant contributes 5.1% decrease in Poverty. Same as the case in Trade Openness, its coefficient is 4.8 and showing significant, implying in Pakistan that one percent increase in Trade Openness while other keep constant contributes 4.8% decrease in poverty. According

P	Constant	AG	GDP	X	LF
1.000000	-561.347	9.172	5.145	4.890	0.011
St. errors		(1.606)	(0.727)	(1.026)	(0.001)
t-ratio		5.73	7.06	4.76	7.42

to World Bank (2000), Openness helps in the eradication of poverty and in fourteen; one of the Millennium Development Goal (MDG) is that developing countries like Pakistan, must reduce poverty to its half till 2050. And same as the case of Employment in Agriculture, its coefficient value is 0.011 and showing a significant, implying in Pakistan that one unit increase in Employment in Agriculture while other keep constant contributes 0.011 unit decreases in Poverty and the values of R-square (0.63), and F-statistics (11.47) shows that the model is overall good fit and statistically significant.

Vector Error Correction Model (VECM):

Error correction	D(P)	D(AG)	D(X) (TO)	D(LF)	D(GDP)
Coint Eq1	0.049	-0.029	-0.016	9.446	-0.161
D(P(-1))	0.063	0.074	0.088	-19.949	0.080
D(AG(-1))	0.591	0.227	0.438	-63.142	0.076
D(GDP(-1))	0.067	0.045	0.131	-33.092	0.094
D(LF(-1))	-0.002	0.001	0.005	0.029	-0.000
D(X(-1))	0.135	-0.042	-0.995	50.423	-0.153
C	1.173	-0.975	-2.140	321-395	0.387

Vector Error Correction model is a restricted VAR model and it deals with those series which are non-stationary and found to be co integrated. If Co integration exists between series which suggests a long run relationship then VECM is used to check the short run properties of co integrated series. For VECM co integration must exist otherwise no need of VECM. It tells us about long run to short run adjustments of the model. In the Short run there is no adjustment from long run to short run as shown by the following co-integration. The estimated error correction model is enjoys a very low goodness of fit ($R^2=0.155211$). The empirical study is performed by using PC version of Eviews 6.0.

Conclusion and Policy Implications

Since all the variables have unit root at levels the study utilizes Johansen Co-integration analysis to test for the existence of a long run relationship between the variables. The co-integrating regression considers only long run property of the model and does not deal with the short run dynamics explicitly. Both the Trace test and Eigen value test indicates that there are two integrating vector. The study concluded that agriculture growth and other all variables have a negative effect on Poverty in the long run. All variables carry expected result.

Basic purpose of this study was to check the impact of agricultural growth on poverty. According to empirical results agricultural growth variable has a significant impact on poverty. This study has also used economic growth which is also significant but as compared to economic growth agricultural growth has a stronger impact on poverty reduction. The reason behind this, in Pakistan mostly people belong to rural areas and more than 60% rural population is related to agriculture directly or indirectly. So agricultural growth directly affects the poor and poverty. Agriculture sector also provides employment to a large proportion of population and also the largest employer sector. So govt. needs to improve this sectors output and growth as it benefits the poor. Govt. should subsidize the farmers so that production could increase and growth as well. Policies should be made to improve the

performance of Agriculture sector. To alleviate poverty, it is suggested that Pakistan enhance the productivity of the agriculture sector through the provision of a series of inputs including provision of easy credit to the small farmer, availability of quality fertilizers and pesticides, tractor and harvester services, improvement in the effectiveness of the vast irrigation system and, finally, farmer education.

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Peri-Urban Informal Trading in Zimbabwe: A Study of Women in the Sector (WIIS) in Ruwa

Innocent Chirisa¹

Abstract

The paper characterises women in the informal sector in the peri-urban settlement by way of a case study of Ruwa. Qualitative methodologies, with a little mix of the positivist approach, were adopted. Forty women engaged in informal sector operations ranging from street (off-plot) and on-plot activities were adopted. Challenges that these operators faced were noted as relating to elements (rain, wind, and the sun), service provision, marketing of products, and regulatory forces. It is recommended that all stakeholders dissect common issues and formulate poverty-tolerant strategies that are accommodative of the plight and challenges of the peri-urban women. Critical to note is strength of the will-power and resilience most of the respondents displayed. The most important thing is perhaps of harnessing on this intrinsic virtue to nurture and develop it for local developmental gain.

Keywords: challenges/ policy and regulatory framework/ physiology/ sustainable business development / facilitation

Introductory Overview

This paper focuses primarily on the characteristics of women in the informal sector (WIIS) in peri-urban areas in relation to the challenges that they face. Ruwa, a peri-urban town located twenty three kilometres from Harare, the capital city of Zimbabwe was taken for a study area. The area was an outstanding peri-urban farming zone, contributing a lot towards market gardening and other farming produce, especially for the benefit of Harare. However, the farming function is gradually diminishing. To date the town has so developed to include upcoming large residential area estates including Windsor Park, Ruwa, Chipukutu, Sunway City, Springvale, Riverside, Zimre Park, Damofalls, and Norah. This can be regarded as a solid mark of the ecological footprint for the town. Ruwa is situated along the Harare-Mutare Road and the area also has a large industrial base supported by the existence of a railway line (Botswana-Bulawayo-Gweru-Harare-Mutare-Mozambique). Provision of infrastructure in the town is mainly private-sector-driven. Ruwa was established as a growth point in 1986. A local board to manage it was appointed in 1991 by the government in accordance with the Urban Councils Act. Before 1991, the Goromonzi Rural District Council and the Urban Development Corporation (UDCorp) jointly administered Ruwa.

In Zimbabwean urban centres, with the increasing decay in the economy since the 1990s, women in the informal sector (WIIS) have been growing by leaps and bounds (cf. Chirisa, 2009a,b, c). These have engaged in a number of informal activities ranging from manufacturing to marketing of different goods and services. The paper seeks to establish an understanding of the WIIS operations in a peri-urban setting. It highlights the diverse challenges they face everyday in their trade and quest for household economic survival. The overall purpose of the paper is to try and inform policy on the astute role stakeholders have in

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creating better working environments especially for the women's trading and business. Thus, the paper attempts some classification of the challenges faced by women in peri-urban informal trading. It gives a description of the different working contexts and environments in which women operate and then examines the coping strategies they have adopted in order to adapt and circumvent to their challenges. Furthermore a suggestion of recommendations for different stakeholders to improve the situation of women in peri-urban settlements is made.

A number of women in Ruwa, like in most urban centres in the developing world, are currently involved in "petty commodity" production and trading (that is the selling of the sweets, vegetables and fruits marketing). This number continues to grow by day. They usually line up streets, street corners and pavements women as they trade. But some are hidden and operate at homes and other potential market zones. An examination of the diverse range of the goods and service they deal in shows that both consumable and non-consumables goods are sold. Petty commodity dealing, *prima face*, is easy and cheap to venture into. However there are a plethora of challenges that trades have to battle with - social, economic, physical and environmental. Apparently in Ruwa, like most urban centres in Zimbabwe, hordes of women joining others on the street for the promotion of better livelihoods face these challenges almost on a daily basis.

The paper provides some operational definitions in the study. For example, the informal sector was taken to mean the production and marketing of goods and services outside the established formal sector. Petty commodities were defined as goods of a low profile, mainly convenient goods including fruit, vegetable and small items whose profit is very meagre, sometimes as little as US0,05 per item. Stakeholders refer to all people or actors that affect or are affected by the operations of an organization or entity of operations (in this case, women trying to organize themselves for production and marketing for as mainly as mainly a survival coping strategy). Stigmatization was taken to refer to the tendency of shunning or ostracizing certain groups of people by their noted misfit elements or characteristics. Women engaged in the low profile business are often stigmatised and associated with high levels of poverty or sometimes with bad practices like prostitution. Lastly, the term working context narrowly refers to the place, location or site in which actors (in this case, women) work in. But, broadly it can cover the social, cultural, economic, political, institutional and psychological environments in which operators are exposed.

The State of the Informal Sector and Women in Urban Zimbabwe

The informal sector in Zimbabwe has been there for some time. It has created employment for a lot of people, especially before the dollarisation (Chirisa, 2009c). The proportion of women workers in the informal sector exceeds that of men in most countries. The informal sector refers to the business that is carried out by the road side, in homes and as they walk. These transactions are usually not documented and those who participate in such trade do not pay taxes to the revenue authority. The closest they come to being registered is through the subscriptions or hawker's license that they pay to the city council. It is important to note only those who sell their products at designated areas usually pay these subscriptions. The majority flee every time they see the council officials approaching. Existing literature suggests that the majority of the women in developing countries are engaged in the informal sector (UN, 2000). The proportion of women workers in the informal sector exceeds that of men in most countries. Women's share of the total informal workforce outside of urban agriculture is higher than men's share in nine out of twenty-one developing countries for which data is available (ibid). The vast majority of women in the informal sector are home-based workers or street vendors. It has been noted that there is an overlap between working in

the informal economy and being poor. A higher percentage of people working in the informal sector, relative to the formal sector are poor. Chen (2009) asserts that there is no simple relationship between working in the informal economy and escaping poverty. Informal workers typically lack the social protection afforded to formal paid workers such as worker benefits and health insurance and typically work under irregular and casual contracts. It ought to be registered that there are a number of contexts (social, political, economic and environmental and psychological in which WIIS operate.) Women tend to work in the invisible sectors of the economy. These sectors are subject to super-exploitation. (Gama, undated) Women have a weak bargaining position, as they tend to be isolated and unorganised. Even in the formal sector they are crowded in the low income and low skilled jobs *ibid*. This is just because women tend to have problems in access to credit and educational facilities, women have an inferior legal status and women tend to take greater responsibilities for raising children, (*ibid*).

CALS, (2005) has noted that the majority of Ash Road women residents in Pietmaritsburg South Africa derive a living through the informal sector. This is the same situation in the urban areas of Zimbabwe, (Chirisa, 2009b). They sell food and merchandise and are dependent on jobs as day labourers or other jobs within the informal sector, where they are vulnerable to what can only be described as exploitation. The engagement by households in the informal economy is not only a headache to local authorities in the developing countries but also heartache to the households themselves..." (Chirisa 2009b:257). Women in the informal sector are often caught in the crossfire of this confusion. In Zimbabwe the economic hardships brought about by Economic Adjustment Programme (ESAP) and the economy coupled with inflationary cycles and predominantly produced a socio-economic miasma (Chirisa, 2009b). A psycho-social analysis of the problems being faced by WIIS (Women in the informal sector) reveals that the informal traders are faced with a number of ethical dilemmas. This is because most of the time these actors are nothing but victims of circumstances (*ibid*). Kambe, (2005) posits that the informal traders hide behind many alibis, one of them being that the formal sector is in no position to absorb them. However, formal authorities tend to let 'sleeping dogs lie' hence showing ambivalence as they observe informal traders tend to house themselves. Stakeholders in the WIIS debate include the individual women themselves, the cooperate venture' local authorities, politicians, human rights organizations and development agencies and the state (UNDP, 2002: Chirisa 2009a, b, c). Chirisa, (2009c) notes that the informal sector in Zimbabwe is marked by easy entry of operators, reliance on indigenous resources, family ownership of enterprises, labour intensive and adopted technology, and skill required outside the formal skill system. However, according to the UNCHS, (1998) a close link has been observed to exist between human settlements and the informal sector and a careful major between the two has been advocated for. This means that human habitat should be so designed to accommodate micro to small-scale business operations, dealing with convenient items and goods , fruits, vegetables, repairs and maintenance to mention but a few. Paradza, in Chirisa (2009c), identified five types of Informal sector operations (ISOs), based on location, residences (carried out at home), shop pavements, roadside operators.

According to Kolstee, et al (1994) and Matsebula, (1996) as cited by Chirisa (2009c) the informal sector in Zimbabwe is characterised by a diverse range of small-scale and micro-activities usually with no corresponding institutions such as banks and with none of opportunities for growth and accumulation, which typify formal small-scale enterprises. Shinda, (1998) defines informal activities as economic activities not included in a nation's data on gross domestic product and not subject to formal contracts, licensing, and taxation. These businesses generally rely on indigenous resources, small scale operations and unregulated competitive markets. In Shinda's simplification the concept most often the

informal economy refers to owner/operator businesses of the urban poor, unskilled or semiskilled workers and the chronic unemployed. These workers and entrepreneurs are often on the fringe of, if not outside, social and fiscal legality. Paradza, (1999) in Chirisa (2009c) posits that the informal sector operations (ISOs) are all enterprises not registered under the companies act or cooperatives act and those which are not assessed for taxation by the central government. In Zimbabwe as in any other economies in the world, the informal sector enterprises have characteristics including being family organised; being small and labour-intensive; being unregulated and subject to high level of competition; related directly and personally to their clients; using local materials and being efficient at recycling materials; experiencing a serious scarcity of capital and having access to credit from financial institutions; and being rarely recipients of government or foreign aid (Dhemba, 1998).

Dhemba, (1998), posits that there are many different view points from which one can observe the informal sector. It can be viewed in a positive way as a provider of employment and incomes to millions of people who would otherwise lack the means of survival. It can be viewed more negatively as a whole segment of society that escaped regulation and protection. It can be romanticised as a breeding ground of entrepreneurship which could flourish if only it were not encumbered with a network of unnecessary regulation and bureaucracy. It can be condemned as a vast sea of backwardness, poverty, crime and unsanitary conditions. Or it can simply be ignored.” Overall, the informal sector has enabled a lot of people to make a living and to take care of their families. The challenges that women face in the informal sector need to be addressed but the only way that can be done are by understanding what it is.

Research Methodology

This research applied a mixed approach. The study involved some fieldwork in which women in the informal sector who are located in the peri- urban Ruwa were targeted. It was not easy to determine the actual numbers in the streets and others operating at home. A total sample of forty (40) women fitting the following clustering was used. Subjects were identified by way of random stratified sampling methods. At the end of the day they could be classified as: those operations on plot (in the housing perimeters); those operations away from home (off plot) and; those moving around with their goods (mobile). Data was solicited via observations, interviews and questionnaires. Observations were made being aided by photography. Translation of questions on the questionnaires helped the respondents to understand issues better and respond from an ‘informed’ stage point. Data recorded on questionnaires was later analysed by way of creating frequencies and turning them into tables. Photographs were presented and also analysed. The study was faced by a number of dilemmas and the following are points are note worthy: fear of victimization expressed by the participants; and expectation to be paid by some participants for them to give out information. But the researcher had to explain that the research was for academic purposes and was not for political or journalistic purposes. Due to financial constraints, a sample was chosen as a reflection of the outcome that could accrue a comprehensive study of the whole area. Triangulating methods for study was useful in providing a better picture of the realities of women in the informal sector in Ruwa.

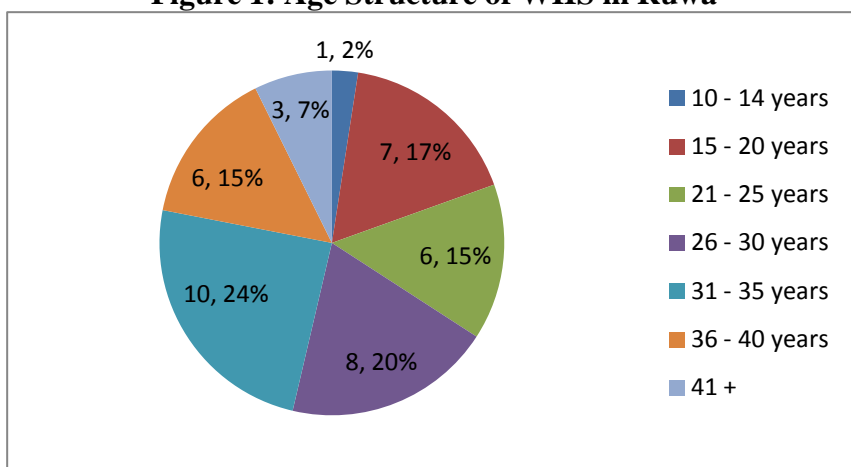
An Analysis of the Research Findings

Characteristics of WIIS in Ruwa

Important in understanding the issues regarding WIIS in Ruwa was a demographic analysis of the participants of the study - the sample of 40 women randomly ‘picked’ from Ruwa’s townships and locations. Their age was in an almost proportional distribution with the least

range being 10-14 years of age (Figure 1). Regarding marital status, the married constituted a large percentage of the research population (about 57%) and on average fitted in the ages of 21 to 40 years (Figure 2). This showed that the population of women in the informal sector in Ruwa is probably dominated by the married. Those who are single (never married) followed at 10%. This may show a trend that perhaps women in these brackets could be supplementing their spouses's salaries or have been recently out of school and found the informal sector as a ready employer, respectively. The remainder were found to fall in the bracket of widows and the separated. Usually, these minorities have no option but to try and engage in the informal sector for them to be able to fend for their dependants and relations. The peri-urban areas are often cheaper than the centres hence most indicated that they had been attracted to Ruwa because the centre provided for them with a hub of reprieve from the 'urban penalty' of unaffordable rents and lack of spaciousness for certain ventures like practicing off-plot farming.

Figure 1: Age Structure of WIIS in Ruwa



As the majority of the spouses' for the married WIIS were established as not employed (Figure 3) and this had resulted in the need to search for another means of income to sustain the family (Figure 4). The single women stated that they were to make a living so they are able to sustain themselves and members of the extended family.

Figure 2: Marital Status of WIIS in Ruwa

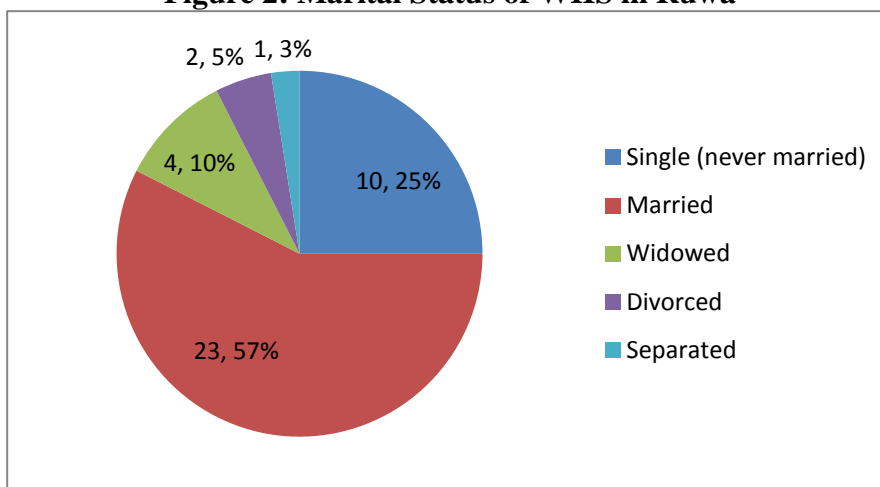
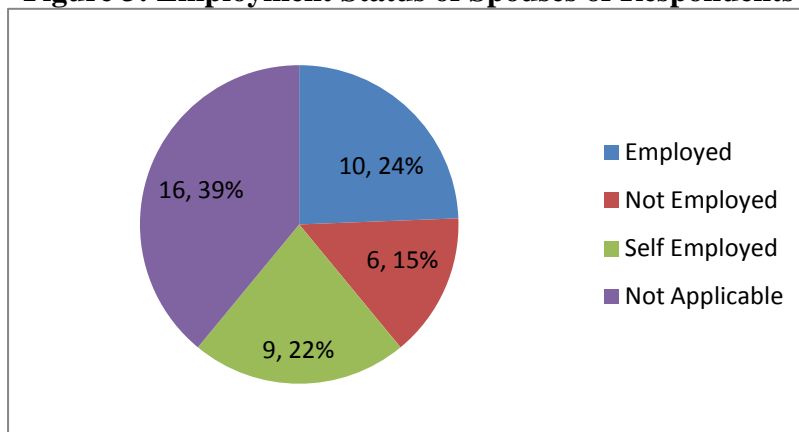
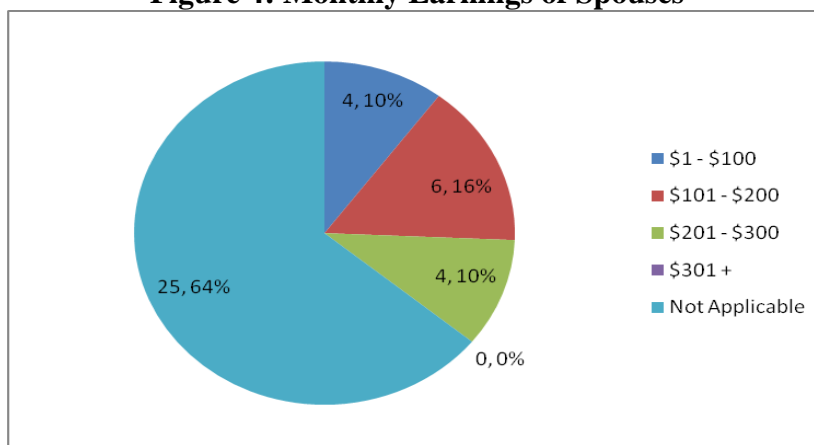
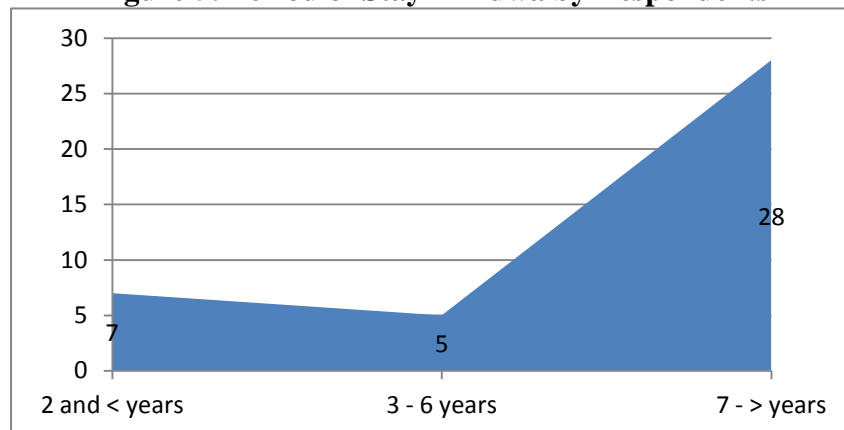


Figure 3: Employment Status of Spouses of Respondents

The majority of those who had their husbands working had these husbands earning between \$101 and \$200 per month. Probably most of these worked in the industrial location within Ruwa or even in harare; some might have been in government as most government and industrial workers earned an average of \$200 per month, at the time of the study, in February and March, 2010.

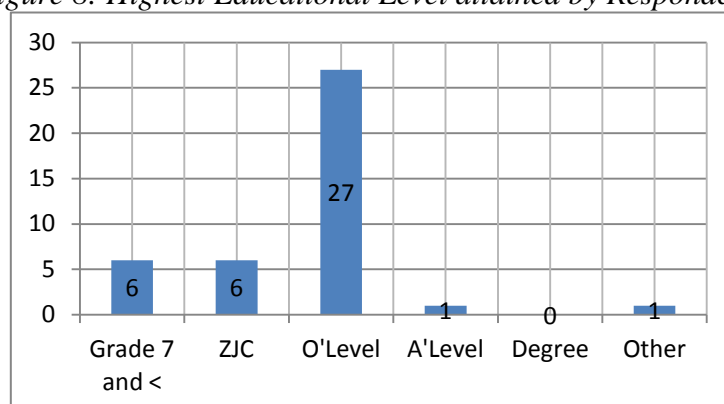
Figure 4: Monthly Earnings of Spouses

Regarding the period of stay in Ruwa, most of the interviewed women (according to Figure 5) had stayed in Ruwa for over 7 years and have been in the trade (informal sector) for quite some time. To them the informal sector had created an opportunity for them to survive. They were more aware of the challenges that manifest in Ruwa and which go with the trade and some indicated to have adjusted accordingly in keeping with their environment and market niche. Those who were recently settled in Ruwa (less than seven years) indicated that they had been 'pushed to the periphery' due to economic hardships that characterised the economy, beginning around 1997 and which became more vicious after Operation Murambatsvina in 2005. After Operation Murambatsvina, many households had nowhere to stay and some found 'favour' from relations in the diaspora who asked them to go and be stewards of their stands in Ruwa where they were constructing houses. This was noted to be particularly true with the upcoming suburbs including Zimre Park, Chipukutu, Springvale, Sunway City, Riverside and Damofalls. A significant percentage of the residents indicated that they were keeping charge of the developments on the plots of their relatives staying out of the peri-urban town. Some of the were either operating at home or in the streets. Those operating at home, in the new suburbs, were mainly of the steward type.

Figure 5: Period of Stay in Ruwa by Respondents

With respect to highest educational level attained, the majority of the respondents (63 %) indicated that they had gone to Ordinary Level. From the sample only one had managed to reach Advanced Level and had proceeded to get a marketing diploma (see Figure 8). One of the embedded reasons for this lack of advancement of women in education could be probably attributed to the the patriachal nature of the Zimbabwean society the male child is perceived more important than the female child. women are victims of this oppressive and cultural values. Due to this position most women tend to have an underdog position in life: their aspirations are heckled at; opportunities for them are choked up and most never rise. This explanation was echoed by one twenty-seven year old woman who said:

“My parents thought the modest destiny for my life was to get married. They gave first preference to my brothers for education. They told me that if they invested in my education that was tantamount to tying money to the leg of a leopard for the investment would benefit my husband’s family than mine. It is unfortunate that some families still wield this barbaric view and many girl children suffer the same. Now I am married and am a mother of two. I somewhat observe this favouritism even in my husband giving first preference to my two year old son. He identifies with him more than the girl. Woe to us women...”

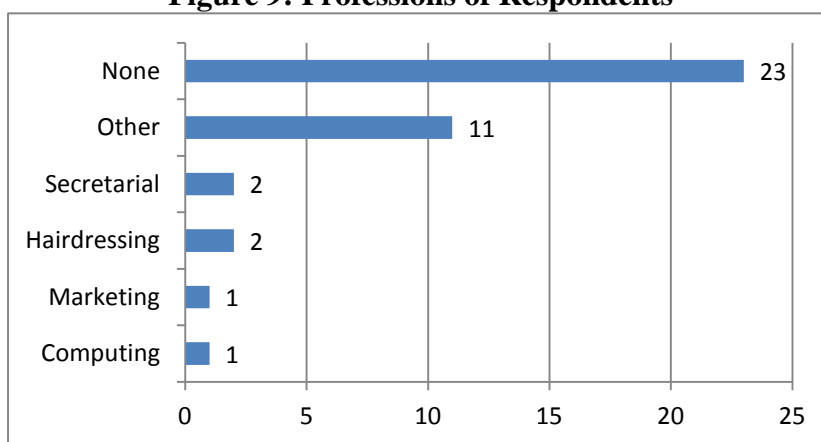
Figure 8: Highest Educational Level attained by Respondents

The level of education tends to determine one’s next level of training. The vast majority of the WISS was noted to be untrained portrayed by Figure 9. Apart from the inhibitive and

financial constraints they faced, most indicated that they had managed to get to Ordinary Level but had failed at that level. Most training colleges required that they had at least five Ordinary level passes. Those who had managed to get some training, it was ironic to note that they were not practicing in the areas they had trained – Figures 9 and 10- specifically secretarial, marketing and computing. One computing but single graduate noted:

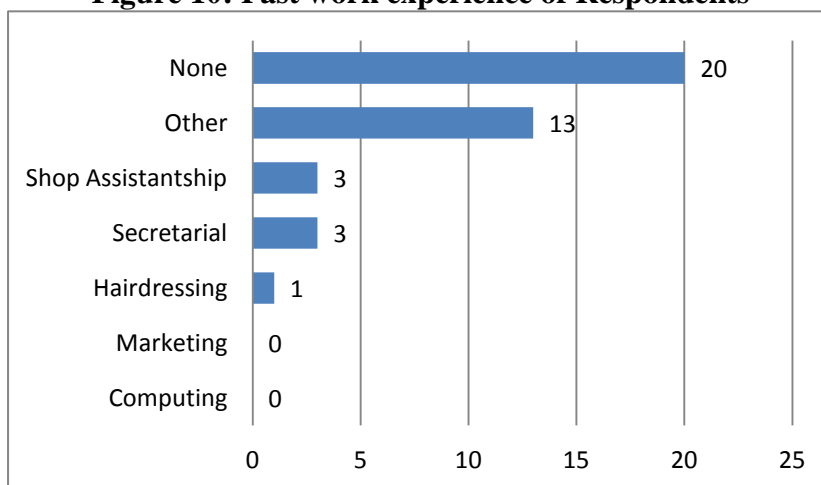
“Jobs are few in the market. Unless you get it by foul means, it is very difficult to get one. Even if you decide to venture into computing business, it requires a large capital for equipment and day to day operation outlay and decent space to attract customers. In this place, how many people will have their papers typed. Good business can only take place in the city centre. It is better for me to be out here and sell bread than to trouble myself getting to Harare everyday”.

Figure 9: Professions of Respondents



Very few (less than 20%) have used their training to make a living. Of those who were previously employed most of them were either shop assistants/ sales women or they worked as secretaries. The rest worked as nurse aids, house maids, worked at a food outlet or were involved in poultry production.

Figure 10: Past work experience of Respondents



Characteristics of the Commodities and Services by WIIS in Ruwa

Figure 6 shows the types of commodities sold by WIIS in Ruwa. These were noted to range from fruits and vegetables (required on a daily basis), to cooked food, to clothing, textiles and

furniture (long range goods). Others dealt in everything through purposeful diversification, as a way to capture the needs of a variety of customers and also to ensure a stable income in all periods of the day, months and seasons. Due to the fact established that most of the respondents had many dependants that banked on them for support, they had to ensure that a stable income flow was at least established per day. Although the majority indicated that they were just breaking even, they still kept on engaging in business lest they literally would collapse in income sourcing. Respondents indicated that meeting the needs of dependants with whom they stayed was more demanding than those away as those they were with were part and parcel of their daily life profile (Figure 7). Convenient goods were the ‘cash cows’ for meeting daily needs. One lady had to remark:

“As you just know, bread is needed daily and it brings some cash to take us to the next day, though it’s not much. It is unlike, these sandals; the market is flooded now and finding customers, even for these cheap goods, for only \$3 per pair, can take you two weeks. I seldom worry about those dependants in the village. I only major in providing them with school fees and money for the grinding mill. For the rest, they grow crops and rear animals in the village. In fact, relative to mine, their life does not require much of cash. As for me, I have rent to pay, fares to pay, and mealie meal to buy. At least I can make money here though the road is tough”.

Figure 6: Types products that WIIS in Ruwa deal in

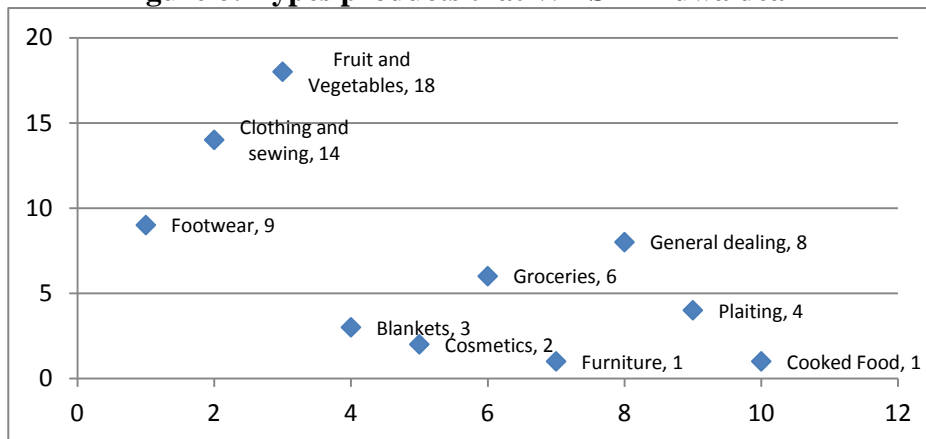
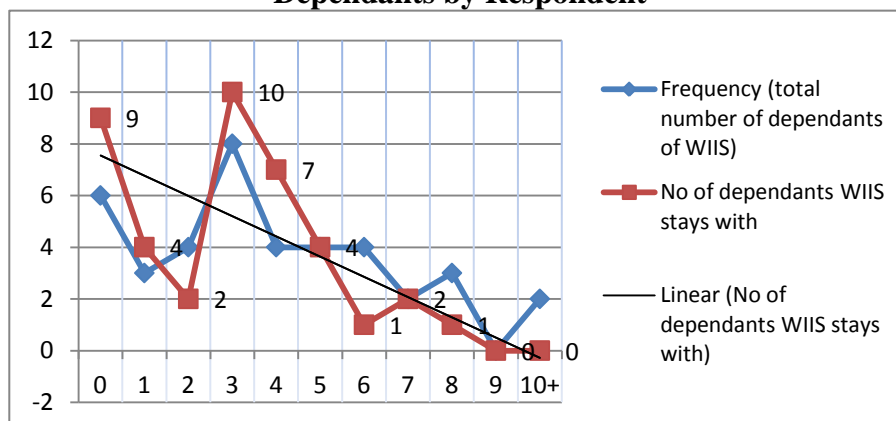


Figure 7: Measuring Number of Dependants stayed with the Total Number of Dependants by Respondent



Markets and Transportation Modes for WIIS in Ruwa

Figure 11 indicates that most of the respondents purchase their goods for resale at Mbare Musika, the largest wholesale market for fruits and vegetables in Harare. It was learnt that other items are also bought in the Harare Central Business District (CBD). As already highlighted Ruwa is well served with road infrastructure and connected to this centre. Goods sourced from the CBD include clothing, footwear and saloon materials. WIIS indicated that they used various modes of transport including midi-, mini and conventional buses. Some indicated that they sometimes used rail transport, but very rarely (Tables 1 and 2)¹. From the surrounding farms in Goromonzi district, the respondents buying farming products mentioned that they sometimes buy from these farms. However, they indicated that it was a good source market if one had own private vehicle to ferry the goods. Another source market was the long distance involving crossborder ventures. The conventional bus was the predominant mode of transport used. In essence, crossborder commodity sourcing requires substantial amounts of capital. South Africa stood out as an outstanding source market compared to the other stated countries. This is capital that the majority of WIIS do not have (see Figure 11).

Figure 11: Source Markets of Goods sold by Respondents

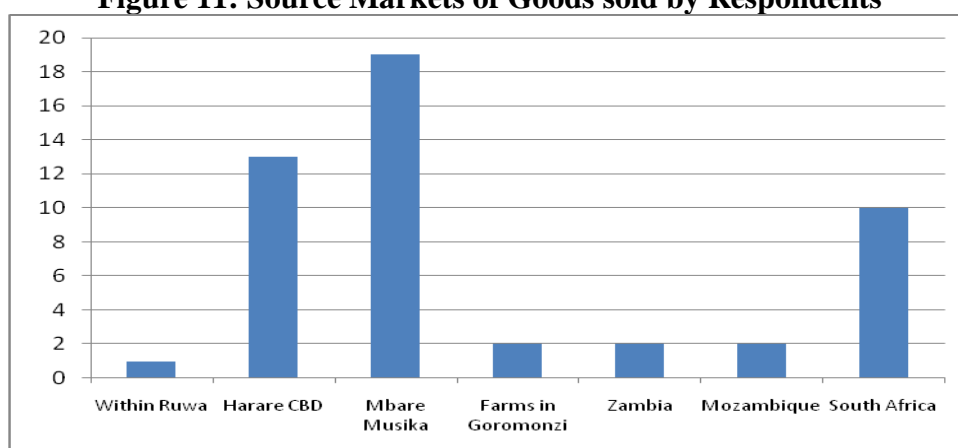


Table 1: Mode of Transport from Market

MODE	FREQUENCY
Train	1
Walking	1
Personal Car	2
Private delivery trucks	9
Buses (Min, Midi & Conventional)	30
None	1

n = 40

Table 2: Degree of Transport Reliability

ASPECT	FREQUENCY
Very reliable	23
Reliable	8

¹ Most of the women (23) were content with their transport arrangements and said that there were no difficulties that they faced when transporting their goods, this was largely because they got the transport they required right at the source market. Those who felt that it was not that reliable complain about tyre punctures along the way. Those who traveled across the borders complained of the long lines that were a characteristic of the borders and the duty that they had to pay which would make their goods expensive and thus reduce the profits they made.

Not very reliable	8
Not reliable at all	0
Not applicable	2

n = 40

Income and Expenditure for WIIS in Ruwa

As Figure 12 suggests, the majority of the women required \$0 to \$40 to be able to purchase the goods for resale. This, *ipso facto* was in reference to the local Mbare and CBD source markets. Very few were found needing more than \$41 largely because of the products that they trade in. Overall, the products they purchased required low capital but in the realities of the WIIS in Ruwa such an amount was not easy in having it ready in the coffers as well as maintaining the capital level. This is explained by the little sales sales of just above \$40 a day, showing that not much profit was realised per day (Figure 13) . Figure 14 highlights the difference in expenditure of the respondents. Most used at least \$5 a day for their daily expenses, which was for bread and transportation. Saving money earned was difficult among WIIS unaccounted for household consumptions, wastefulness through rotting of perishables and expenditure.

Also, due to stiff competition among the women and other sellers in the same area and same markets, potential profits were to be shared among the players.

Figure 12: Money required when buying goods daily or episodically

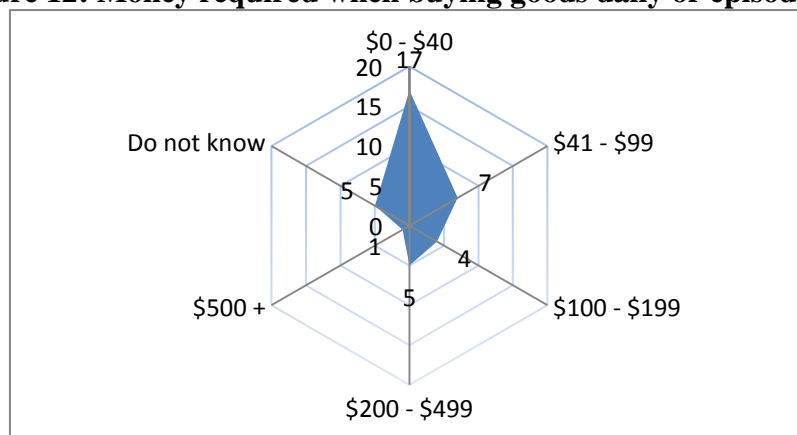


Figure13: Possible Sales per day by Respondents

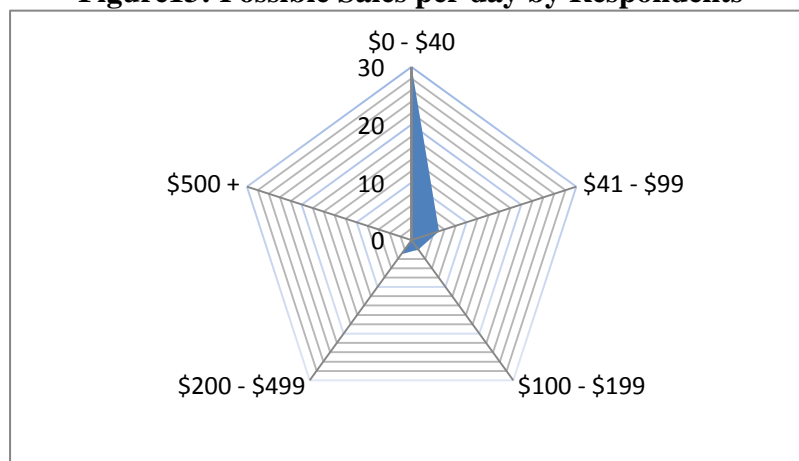
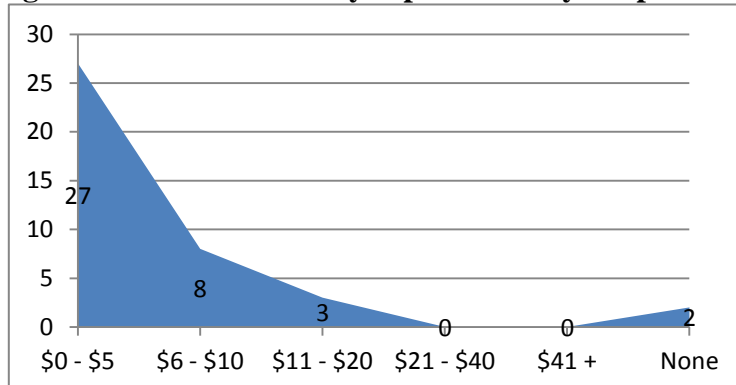
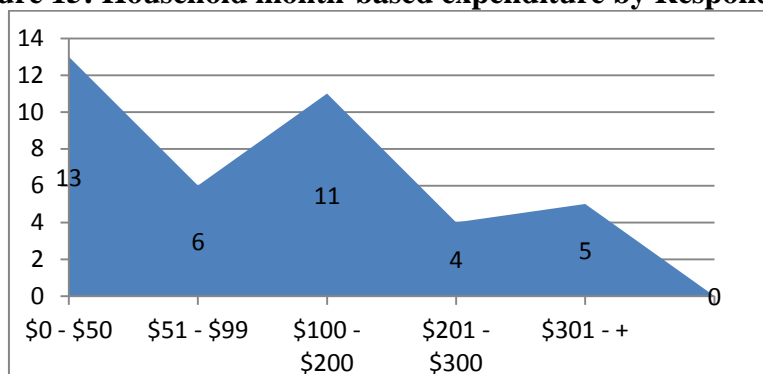


Figure 14: Household daily expenditure by Respondents

The amount that they used per month according to Figure 15, exclude daily expenditure. Monthly spending included rent, payment of bills (water and power).

Figure 15: Household month-based expenditure by Respondents

Place-based considerations (Working Contexts) for WIIS in Ruwa

Table 3 highlights the reasons that influenced people to embark in the trade as well as the reasons they are working where they are. 61% of the respondents were attracted by the potential business in the area. The other 41% were looking for a livelihood. Table 4 shows the different working contexts in image form.

Table 3: What attracted/pushed you here?

REASON	FREQUENCY	PERCENTAGE (%)
We lacked documentation for formal places	1	3
This place is confluent and central place. More customers	13	32
This place is busier than normal designated place	5	12
We were experiencing poverty at home; quest for livelihood	12	29
To supplement spouse's earnings	3	7
This place is recognized by council	5	12
Other reasons	2	5

Plates 1, 2 and 3 shows some of the challenges faced by women in the informal sector in Ruwa by way of pictorial images

PLATE 1: Working in the Open



Opposite kwaGeorge Shopping Centre, located along the Harare-Mutare Highway, women display their goods. Most of the times they have to sell under umbrellas. Busybodies come and sit. There is also always a dilemma of trying to display the goods for customers to see and maintaining their flavour and edibility. Elsewhere, often, street sellers locate themselves at road junctions to enjoy the incessant flow of customers.

PLATE 2: KwaGeorge – Dropping Zone from Fruit and Vegetable Source Markets



Opposite kwaGeorge shops, a new market stop-shop has emerged. It is both a pick-and-drop point for women from the fruit and vegetables' market and also a wholesale by those who can bring these goods by their own or hired vehicles

PLATE 3: A house in ZIMRE Park: Coping with Distance



The woman of this house decided to place her goods under a veranda. Passers-by and neighbours come and buy fruits and vegetables.

The challenge that affected the respondents the most according to Table 4 the police and regulators (council) who frequented their areas of trade. Those who claimed that there were no problems could have been afraid of stating the problems or could not have understood the question. These challenges can be classified into the social, economic, physiological, political and environmental challenges. Challenges in the informal sector that women in peri-urban areas face include water shortages, police and regulator harassment, lack of protection from the elements, family care burdens found at home.

Table 4: Challenges faced when working

ASPECT	FREQUENCY
Conflict between police and regulators	12
African science (witchcraft)	3
Gossip	1
Disturbance by drunkards and busybodies	2
Lack of shelter against weather elements	4
Bad debtors	2
Lack of change	2
Rotting of vegetables before sale	2
Presence of dogs on premises	1
Strictness of landlord to allow customers in his stand	2
Failure to pay city council rates	1
Failure to make daily reasonable sales	1

Few customers coming	2
Water shortages	5
Burden of domestic responsibility	1
None	11

n = 40

Challenges in the informal sector that affected the women at home the most were because of the family care burden. Illness, visitors and even house chores affected their attendance of work as they had to take care of the home first before going for work. Those who stated that there were no challenges at home can only then be biased as they might not have taken into consideration the day to day expectations of the home (see Table 5).

Table 5: Challenges faced by WIIS at Home

ASPECT	FREQUENCY
Water shortage	3
Power shortage	2
Landlord causing problems	2
Family care burden	11
Exhaustion from work	1
Distance	1
None	23

n = 40

The women have experienced a lot of challenges that have affected their lives. The illnesses that they had affected their work as in some cases they would be forced to stay at home because they could not attend work (compare Table 6).

Table 6: Physiological challenges by WIIS in Ruwa

ASPECT	FREQUENCY
Stomach cramps	1
Chronic headache	7
Arthritis	5
Fibroids	2
Allergies	1
Chest pain	5
Hyper tension	2
Heart disease	2
General illness	1
None	22
Surgical Operation	1

n = 40

How Women in Ruwa Cope with the Challenges

Coping strategies that the women had adopted included making sure that they had paid their 'subscriptions' so that they were not bothered by the police and other regulatory bodies. They had also built makeshift shelters to protect them against the elements. However some chose to run away from the police when they saw them and go home once it started raining or got

too cold. Some of these tactics of a “guerrilla” type can disturb the flow of business. Some respondents indicated that the council has tried to assist with building structures for them to operate them what the women could do is also come up with associations that would aim at improving their situations. As noted in Table 7, WIIS had adopted various coping strategies to enable them to adapt to the situation that they were in. these coping strategies have enabled them to continue with their business operations.

Table 7: Coping Strategies by WIIS in Ruwa

ASPECT	FREQUENCY
Medical Intervention	7
Help from family members	3
Avoid credit sales	1
Makeshift shelters	4
Rotational savings' clubs	2
Tolerance	3
Diversifying	1
Getting a Hawker's license	4
Hiring a help	0
Lobbying council to provide marketing place	2
Lack of capital	1
None	15

n = 40

One way of coping with the challenges women faced daily in their operational environment as well as with the challenges at home was that of maintaining a ‘positive mind’ in themselves. This is some kind of a self-empowerment tool. WIIS in Ruwa made some suggestions which they said could also help other women facing the same challenges as they were. Table 8 portrays the suggestions that the WIIS had for other women who were in the same sector.

Table 8: Suggestions by WIIS in Ruwa to other Women

SUGGESTIONS TO OTHER WOMEN IN THE SAME SECTOR	FREQUENCY OF RESPONSE
Be self-reliant	15
Adopt zero tolerance to gossip	1
Persevere and endure in business and overcome your challenges	26
Be confident	1
Be diligent	1
Mind your own business	2
Encourage rotational savings' clubs	2
Embark on a better business plan	2
Young women should find something to do (work own hands)	1
Diversify	2
Self control and good conduct	2
Avid practicing witchcraft	1
Support each other, relations and spouses	1
Seek training and perform better	1

Be brave, take it as a challenge	3
Reject products should be for home use	1

n = 40

Conclusion and Recommendations

Informal sector players operate in a risky terrain. One of the lessons that can be deduced from this study is that WIIS operate in the streets, at home and even whilst walking from one place to the other. This is not an easy job given the challenges regarding each place's need and demand. Generally, WIIS like men in the informal sector experience a lot of challenges in quest for household survival. Despite these challenges they have come up with their own coping strategies that have enabled them to continue with their trade. Life in the informal sector is not as easy as it seems. Different stakeholders with respect to WIIS could be having different views about them (including) their husband, the government, and human rights organisations. Though the research period the following ideas can help in the improvement of the situation of actors in the informal sector, for instance, that: women can form associations (which can lobby for the recognition of the sector at the local level) and that could address their situation as they know their position better; in organizing round tables they can also create a system that also enables them to better their situation by ensuring a formalized civic system to cushion them against certain challenges including the need for some kind of pension, medical bills and other key contribution for life assurance; and that, training should be done so that the women (as well as men) know how to carry out their business and make profits (This training has to be hands on and participatory). In general terms, women have more challenges than men.

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Impacts of Budget Deficit on Output, Inflation and Balance of Trade: A Simultaneous Equation Model Approach

Iftkhar Wakeel¹ and Kafait Ullah²

Abstract

This paper tries to analyze the impacts of budget deficit on macroeconomic aspects of Pakistan. In fact the ways through which budget deficit is financed, can affect money supply, output, exchange rate and then foreign trade. Annual data for the period 1970-2010 has been taken for analysis. ADF test used for stationarity test, 3-Stage Least-Square method is adopted for estimation by using STATA-10 software. The study revealed the Output changes are positively related to BCP and Government expenditures but negatively with interest rate. Money supply is positively related to GBD, BCP and foreign reserves(R). So money supply does increase whenever we try to finance budget deficit through Government, private or external borrowing. On the other hand, changes in Exports and Imports depend on changes in ER and their relative prices respectively which are affected by money supply. But the changes in imports are bigger than changes in exports, pushing the balance of trade towards deficit. Our study has also measured the negative relation between Balance of Trade and Output. Study concludes that when government tries to use government expenditures to get higher output, deficit may come into existence and then financing the budget deficit results in inflation, trade deficit and afterwards affects output.

Keywords: Budget deficit, Financing of deficit, Money Supply, Growth, Balance of Trade, ADF test, 3SLS approach, Simultaneous model, Pakistan.

Introduction

The governments use fiscal policy tools, to achieve their desired goals. In that process deficit budget policy is a famous tool of fiscal policy in order to increase the rate of growth. Commonly when private and foreign investment becomes insufficient for optimal production, then government plans to spend available funds in different sector of economy. In recent years many developed and developing countries have experienced the budget deficits, believed to be the result of over-expansionary fiscal actions of policy-makers. In developing countries, the government depends upon deficit financing due to its inability to mobilize domestic resources sufficiently and system failure to manage the expenditures according to the revenues. Every year government announces budget in which expected expenditures and expected revenues are forecasted for next fiscal year. It is amazing to describe that we always fail to attain the projected goal of revenue collections but, we never fail to spend funds (the nation's capital) according to announced sum of expenditures. At the same time, role of government is of backbone importance in developing countries like Pakistan where

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there is lack of private and foreign capital. To stimulate the growth of economy, government makes the participation with private sector as well as makes expenditures for infrastructure and overall development of economy. But it is necessary to keep the expenditures and revenues in equilibrium in such a way that expenditures must not exceed over revenues. Say, government spending is useful but deficit spending is not. Once the economy is trapped in deficit, it would become difficult to remove and control in next year.

Deficit is financed by six ways: First, by issuing new currency (borrowing from Central bank). As the each currency note printed is liability of Central bank because the bank has to get the responsibility to validate the value of that piece of paper. Federal Government accepts to repay that liability, if bank helps in financing the deficit. Second, by borrowing from banking and commercial institution i.e. government issues special notes and securities to commercial banks and other specified monetary institutions and collects funds to finance the deficit. Third, by borrowing from non-banking financial institutions and general public. In 1980's borrowing from central bank (issuance of new currency) was restricted in Pakistan. Then the method of borrowing from general public and commercial institutions came into existence i.e. Central Bank issues bonds, securities or public shares and offers interest as reward of holding those bonds, securities. Fourth, by borrowing from international financial institutions. Fifth, by consuming foreign reserves and Sixth, by selling public assets through privatization process.

However the increased Government spending causes the Aggregate Demand to increase as well as the real GDP. But if expenditures exceed over revenues, it would negatively affect the economy.

Monetary financing is direct increase in the money supply. And increase in the volume and circulation of currency leads towards inflation. Explaining that individuals have money in hand and they are ready to pay too much money for too few things. Borrowing from international institutions often results in circular debt.

To cover the deficit government has to borrow from general public, private sector, and from commercial banks by selling bonds or issuing securities. It deliberately increases the overall burden of borrowing on economy. Selling bonds will increase the national debt. Furthermore, Government has to pay specific amount of interest as outcome of bonds and securities. This has a high opportunity cost because it requires year by year interest payments. The unpaid interest amounts also add up into debt. This process causes the debt to increase by hitting down the Debt to GDP (Debt/GDP) ratio. Increase in Debt to GDP ratio shows the falling level of debt sustainability of the economy. Now we look into the relationship between foreign trade account as relation and deficit. As we have stated above that budget deficit changes the price level in the country due to money supply or other ways. Other things remaining the same, price level causes to change the supply of exports and demand of imports through relative prices of exports and imports. And the level of exports and imports are surely the very important components to change the foreign trade account.

So far, various studies have been conducted in analyzing the impacts of budget deficit on macroeconomic indicators. A number of studies have also been conducted in Pakistan but quite a few aspects are missing in those studies. For instance, they have limited their research by using simple OLS or by ignoring the problem of endogeneity and simultaneity biasness if simultaneous model used. This paper has tried to overcome such lags by examining the impacts of budget deficit on inflation, output and balance of trade by using 3SLS approach for simultaneous equation model.

The purpose of this study is to examine the budget deficit implications to inflation, output and balance of trade in Pakistan. The 3-Stage Least-Square method is applied to estimate the model, in which all variables are inter-related to each other and are simultaneously determined within the model. Annual data for 1970-2010 is selected for analysis. Augmented

Dicky-Fuller test is used for stationarity check and then difference taken if necessary. Durbin-Watson test is used for checking autocorrelation.

The paper will follow in the following sequence. Section 2 tells about economic situation of Pakistan. Section 3 sheds light on literature which provides empirical evidences. Section 4 provides theoretical explanation about relationship between variables and process of modeling. Section 5 contains on estimation and interpretation of findings. Finally in section 6, conclusion is drawn on the basis of results.

Before going to literature and estimation, we should have a look at relative aspects of Pakistan economy.

Scenario of Pakistan

Pakistan has a history of macroeconomic imbalances and until recently has extremely high foreign (as well as domestic) debt, decreasing level of international reserves, depreciation of currency day by day, high inflation, high nominal interest rates, continuous budget and current account deficits with un-sustainable, low growth.

Output: The average economic growth over 40 years is around 4 percent. The main focus of any policy has been to achieve a sustainable growth pattern. However, due to a number of macroeconomic imbalances such as high budget deficits, high indebtedness, low savings and investment, lack of fiscal discipline, undeveloped financial markets, unstable exchange rates along with high population growth and huge defense expenditures made this task almost impossible. Some of these macroeconomic imbalances contributed to episodes of high inflation and unemployment. Gross Domestic Product (GDP) growth has been stuck at a level, which is half of the level of Pakistan's long-term trend potential of about 6.5 percent per annum and is lower than what would be required for sustained development.

Deficit: On average, deficit was 6% of GDP during the decade of 1970s. It was 7.6% of GDP in 1980s. During the year 2001-02, it has again surpassed 7% of GDP. For the sustainability of deficit several revenue measures were introduced in the successive budgets, along with reduction in development expenditures, however, all in vain. Budget deficit in Pakistan has varied between 5.4 to 8.7% of GDP during last two decades. Now government is trying to cut down the subsidies and struggling for improvement in tax collection process but still it is 5.4% in 2011-12 and is projected at 6.5 % of GDP for end 2012-13.

Public Debt: Pakistan's public debt stood at Rs. 12,024 billion as of March 31, 2012. During first nine months of current fiscal year, total public debt registered an increase of Rs. 1,315 billion which includes Rs. 391 billion consolidated by the Government into public debt against outstanding previous year's subsidies related to food and energy sectors. Public debt as a percent of GDP stood at 58.2 percent by end-March 2012. At the end of March 2012, servicing of the public debt stood at Rs.720.3 billion against the budget amount of Rs. 1034.2 billion. A major cause of this increased debt is year by year high deficit.

Reserves: Pakistan's foreign exchange reserves reached to \$ 16.5 billion at the end-April 2012 compared to \$ 17.0 billion at end-April 2011. The exchange rate averaged at Rs. 85.50/US\$ during July-April 2010-11, whereas it averaged at Rs. 88.55/US\$ during July-April 2011-12. The Pak Rupee depreciated by 3.4 percent during July-April 2011-12 over the depreciation of 2.2 percent in July-April 2010-11 period.

Inflation: Inflation has always been the one of major problems of Pakistan. Historically we can examine the trend of inflation, say, during 1973-1980; rate of inflation remained high at an average of 14.3 percent. During 1980s the economy experienced a comparatively moderate rate of inflation averaged at 7.2 percent per annum. But in the 90s it increased again having an average of around 10 percent per annum. In fact, fiscal sector indicators also moved in the same direction during the sub-periods mentioned earlier. Inflation is still in double digits (10.8), even more than target of 9.5%. Another matter to be noticed that, Pak

Rupee depreciated by 3.4 percent during July-April 2011-12 over the depreciation of 2.2 percent in July-April 2010-11 period.

Balance of Trade: And finally the current account is showing the deficit of \$3.1 billion for the period July-March FY12, as compared to \$10 million in the last year. This deficit in the current account was largely caused by the widening of trade and services account deficit. However, continued support from current transfers in the form of workers' remittances helped in containing further increase in the current account deficit during the period under review. The trade deficit expanded mainly due to the 14.5 percent growth in imports and the 0.1 percent increase in exports; thereby widening the trade deficit by 49.2 percent during the period.

Figures mentioned above are obtained from: {Chapter. Public Development, Growth, Inflation, Trade and Payments, Money and Credit (issues 2005-11), WorldWatch Institute (2002), World Trade Organization (Review report 2001-12), World Bank (1997), IMF Working paper (W/02/208), Chaudhary and Kiyoshi Abe.(1999), and SBP Publications (Annual Performance Reports)}.

Keeping the current and past economic situations of Pakistan in mind, we must try to find the reasons and suggestions to improve our economy. Our objective is to find the impacts of budget deficit on above mentioned macroeconomic variables. Literature will tell us the story of budget deficit as related to macroeconomic variables.

Literature Review

[Irving Fisher (1911) classical QTM] Monetary financing involves the resorting of government to central bank's resources, in other words the issuing of new currency in order to finance budget deficit, and it surely causes inflation. "Supposing an increase of money supply, while level of output and velocity is constant in short run. Now issuance of new currency just raises the level of prices".

$$M*V=P*Y$$

On the basis of this equation we can see that, at a given level of output, an increasing stock of money into circulation is directly reflected in raising level of prices because velocity of money is also assumed to be constant.

Shehnaz et al.,(2006) examined the debt dynamics and its burden on Pakistan, over past three decades (1970-2005). Their results indicate that rising level of twin deficits, fluctuations in exchange rate and high interest rate payments are the three core variables are responsible for rise in public debt and overall debt burden. Results also revealed that exchange rate factor has remained important throughout the period to increase the public debt ratio. And interest rate factor was marginally responsible towards rise in external debt to GDP ratio. Point to be noted is that, exchange rate and interest rate fluctuations are due to budget and current account deficit.

Barro, Robert J.(1989) Ricardian equivalence theory states that consumers are Ricardian, means that they are aware of government policy decisions and predict future on the base of past. When government faces the deficit because of increased expenditures, consumers know that this deficit needs to be financed by taxes and their future generations will have to pay higher taxes in response of government steps to remove deficit. So they reduce current consumption in order to save for future. In response to minimize the deficit in next periods, government has to plan about controlling it, either by increasing tax revenues or by cutting down the government expenditures. In both cases, economy suffers. Expenditures may be current or developmental, which simply means that low expenditures may lead to low development. And if we adopt second option of increasing revenues through high taxes, taxes

decrease disposable income (capacity to consume) and incentives to work decrease by increasing taxes.

Richard J. Cebula (1989) Another impact of Budget deficit is that, if the government sells more bonds to finance the deficit, this is likely to cause interest rates to increase. This is because the government needs to increase interest rates in order to attract investors and compete with private institutions for the available funds. If government interest rates increase, this will push up other interest rates as well.

Aisen. A and D. Hauner, (2008), on the basis of previous 30 studies and current estimation, they found the positive relationship between budget deficit and interest rates.

According to classical school of thought, while defending the Laissez Fair concept for Economy. Classical say that government intervention is harmful for market efficiency because government spending causes the private investment to decrease. That's because the private investors dislike the government intervention in markets. Besides this, increased interest rates also discourage private investment in the economy. So we can say that budget deficit hits private investment through government borrowing and spending. This is called the "Crowding out" effect.

A. Premchand, (1984) empirically estimated that deficit funding by public borrowing (bonds, securities) contributes to financial crowding-out of private investment due to high interest rate and government intervention.

Laurance. B and N.G.Mankiw, (1995) while describing the impacts of budget deficit pointed out that decrease in national saving is major and most harmful impact of budget deficit. Savings keep the Consumption in balance and it is capacity to invest in future. Lower saving means the lower capital formation in the future. And in long run it will cause unemployment and capacity of production will severely go down.

Jhon D.Abell, (1990) estimated impacts of budget deficit on trade deficit and examined that deficit financing through issuance of bonds and securities may put upward pressure on interest rate, higher interest rates attract foreign inflow, inflow trend of foreign investment enhances the foreign exchange value of domestic currency (low Exchange Rate), lower exchange rate discourages net exports and finally causes Trade Deficit.

Bijan B. Aghevli and Mohsin Khan (1974) introduced the simultaneous model and utilize tests for causality to empirically analyze the relationship between budget deficit, inflation, money supply and output growth for four developing countries (Brazil, Colombia, the Dominican Republic, and Thailand) for period 1978-2009. It is found that deficits occurred due to revenue gaps and essential role of government expenditures. The empirics showed that the financing of government deficits increases money supply, thus generating inflationary pressure and in long run as, low real growth of economy.

Chaudhary and Kiyoshi Abe, (1999) Like most developing countries, a large and growing budget deficit in Pakistan is one of the major outstanding economic problems. It is held responsible' for high inflation, low growth, a current account deficit as well as the crowding out of private investment and consumption.

Vieira (2000) investigates the fiscal deficit and inflation relationship for six major European countries. The results obtained by the author provide little support for the proposition that budget deficit has been an important contributing factor to inflation in these economies over the last 45 years. On the contrary, where evidence exists of a long-run relationship between inflation and deficits, this evidence is more consistent with the view that it was inflation that contributed to deficits, rather than the reverse.

Brian Motley (1983) had a research over the empirical relationship between money supply, real interest rate and budget deficit in San Francisco. Empirical results showed that real interest rates have risen sharply. It is widely argued that the need to finance increasing government deficits combined with a tight monetary policy. The empirical results of this

paper suggest that this relation only held during the seventies and that even during this decade the effect was less significant when one took account of change in the money supply and the federal deficit that took place at the same time. He analyzed that on one side real interest is increasing as a factor to crowd out the private investment. And on the other hand money supply and money circulation is also increasing for enhancement of inflation in the economy.

Chaudhary, M.Asalam and Naveed Ahmad (1995) suggest that domestic financing of the budget deficit, particularly from the banking system, is inflationary in the long run. The results provide a positive relationship between budget deficit and inflation during acute inflation periods of the seventies. They also find that money supply is not exogenous; rather, it depends on the position of international reserves and fiscal deficit and it has emerged as an endogenous variable.

The general conclusion is that the execution of monetary policy is heavily dependent on the fiscal decisions made by the government. In order to control inflationary pressure, government needs to cut the size of budget deficit.

Asif Idress and M. Saleem Khan (2006) explore the relationship between budget deficit and inflation. Deficit is financed by issuing new currency, borrowing from banking and non-banking institutions, or from international monetary institutions. This all enhances the money circulation in economy and then results as inflation. Their analysis represents that there is a long-run relationship among inflation, fiscal deficit, and total bank borrowing by the government. Finally they conclude that inflation is affected by the total bank borrowing as well as fiscal deficit. Both fiscal deficit and total bank borrowing by the government sector are causing inflation. As a sufficient condition for fiscal dominance in Pakistan, fiscal deficits affect changes in seignorage rather than the other way round. Therefore, it is also concluded that inflation is a fiscal phenomenon in Pakistan.

Hakro. Ahmed (1999) Criticized on simple OLS, Multiple regression model and ARIMA models as these techniques do not cover impacts of causality, endogeneity, exogeneity and are unable to provide authentic forecasts. He formulated simultaneous model and used VAR methodology for forecasting and measuring cyclical behavior of variables and assessment of the impacts of budget deficit on different macroeconomic factors. He checked stationarity (Dickey Fuller Test, ADF) and whiteness of residuals. Furthermore he made structural adjustment then checked the causality test, long run relationship (Johansen Co-integration) test. Results showed significant relationship between budget deficit. He revealed that inflation is caused by budget deficit through money growth. The results also proved the change in interest rate, economic growth, exchange rate and Balance of Trade, due to deficit. He also found long run relationship between budget deficit, money supply (inflation) and interest rate.

Chaudhary and G. Shabbir,(2005) tried to find the impacts of budget deficits on macro-economic variables using 2SLS technique. And the empirical evidence leads to the conclusion that fiscal and monetary variables are important to determine economic stability in the foreign sector of Pakistan. The changes in money supply affect trade balance through output which resultantly brings changes in foreign reserves. The increase in government budget deficit, partially due to an income inelastic revenue structure, leads to excessive expansion in domestic credit, which creates excessive supply of money over demand, and therefore leads to foreign reserves outflows.

A.Qayyum Khan, et al.,(2008) Critically analyzed the short-term effects of budget deficits on inflation, interest rate, output, private and public investment, unemployment, international reserves and balance of payments, on the basis of annual data for period 1960-2005. The study examined that money supply is positively related to international reserves. Money demand depends on income. Output is positively affected by private and public investment,

government spending and balance of trade but negatively related with interest rate. Exports and imports are sensitive to exchange rate and their relative prices. Finally the study concludes that budget deficit can cause higher inflation, higher trade deficits, higher unemployment and higher interest rates, along with lower growth and low level of investment.

Stevan Gaber (2010) reveals important part of deficit financing. High debt, high interest rate is 1st impact of budget deficit and then it results as portfolio crowding out. Government spends assuming the multiplier effect i.e. through government expenditures and taxes they can have influence on aggregate demand of economy. But in real it results in crowding out effects i.e. change in aggregate demand is smaller than change in government expenditures. Then describes that how due to budget deficit, trade deficit also exists. After deficit government is bound to issue a large amount of bonds in order to finance the deficit. High interest rate attracts foreign investors along with domestic investors. Then high demand of domestic currency decreases the exchange rate. Lower exchange rate discourages the exports and encourages the importers (imports become cheaper). End result is twin deficit.

William Easterly and Klaus Schmidt-Hebbel (1993), had a comprehensive analysis on implications of budget deficit on macroeconomic aspects of 10 developing countries and had a strong evidence that monetary financing leads to higher inflation and debt financing to higher interest rates. Further the evidence is provided about unfavorable impact of deficit on balance of trade. Empirics prove that trade deficit is followed by budget deficit as well as nominal exchange rate is also affected by budget deficit. However the crowding out effect is rejected in some developing countries, being non-sensitiveness of private investment to interest rate. And Ricardian Equivalence is rejected for some nations where conditions are not predictable. After describing and empirically proving major impacts of budget deficits they suggest that the healthy Growth makes the economy sustainable and makes deficits less harmful. Budget structure must be improved and some reforms must be adopted for private investment.

Literature concludes:

Literature reviewed above enables us to understand the impacts of deficit. And according to different scholars who analyzed the empirics of different countries, it can be proved that budget deficit causes the inflation to rise, interest rate to flourish, growth to screw up and balance of trade to diminish.

A rich literature on analysis of budget deficit and its implications on macroeconomic aspects is available. Many scholars have analyzed the significance of budget deficit as related to different macroeconomic aspects of economy like Output, Inflation, Balance of Trade, Interest rate and private investment as well. In Pakistan, past studies have been estimated for the period up to 2005 by using OLS, VAR Model or by 2SLS. But all these techniques have many disadvantages, especially when variables are simultaneously inter-related and endogenously determined within the model. So to avoid the problem of endogeneity and biasness, this study is based on 3SLS methodology and time period is also expanded up to 2010.

Material and Modeling

From the above literature variables are selected and time series data from 1970 to 2010 is obtained from Economic survey of Pakistan, World Development indicator and International Financial Statistics and Handbook of Statistics State Bank of Pakistan.

[(Aslam chaudhary and Shabir,2005), (Aslam and Naveed,1995), (A.Qayyum and Naeem,2008), Hakro.Ahmed, 1999] have found the relationship between International Reserves, Government Borrowing and Private credit and proposed the money supply function is given as follows.

$$Ms=f(R, GBD, BCP)$$

Where M_s is the money supply; R is the international reserves; GBD is the government borrowing from the banking system (to finance the budget deficit) and BCP is the commercial banks credit provided to the private sector.

And a rich literature is available for money demand suggesting that, demand for real money balances is the function of real income and interest rate.

$$(Md)=f(Y, i)$$

Where M_d is the demand for nominal cash balances: y = real income and i = rate of interest. The real output is the function of real government expenditures (consumption plus investment), credit of banking system to the private sector, balance of trade and real interest rate.

$$Y=f(GE, BCP, BT, i)$$

Where, GE is the real government expenditure (investment plus consumption), i is real interest rate and BT is the balance of trade (export minus import).

The supply of real exports depends on real income, relative prices of exports and nominal exchange rate.

$$X=f(y, RP_x, ER)$$

Where y is the level of real income, RP_x is the relative prices of exports (p_x / p), and ER is the nominal exchange rate.

Finally the demand for real imports depends on real income, relative prices of imports, international reserves and nominal exchange rate.

$$M=f(y, RP_m, R, ER)$$

Where RP_m is the relative prices of imports and R are the international reserves.

The complete model can be written as following:

$$"Ms = a_0 + a_1(R) + a_2(GBD) + a_3(BCP)"$$

$$"Md = b_0 + b_1(Y) + b_2(i)"$$

$$"Y = c_0 + c_1(GE) + c_2(BCP) + c_4(BT) + c_5(i)"$$

$$"X = d_0 + d_1(Y) + d_2(RP_x) + d_3(ER)"$$

$$"M = e_0 + e_1(Y) + e_2(RP_m) + e_3(R) + e_4(ER)"$$

[Abdul Qayyum Khan, et al(2008), Ch.Asalam and Ghulam Shabbir (2005) and De Silva(1977)] explain about similar simultaneous model and shed light on variables that how do these affect each other and become endogenous.

Money supply takes place due to (Government spending, financing of deficit) increase in Reserves, government borrowing and Credit provided by banks. And the Output level is also determined by Government expenditures and Credit by banks. Whereas a great literature is available to prove that, Money demand is positively affected by Income. So we can say that every change in GBD , Reserves and BCP will affect Money supply directly and the Money demand indirectly. Other remaining the same, change in domestic price level (inflation) depends on change in money demand and money supply say, price level will move upward if change in M_s is greater than M_d and vice versa.

Now we see that supply of Exports and demand for Imports can be affected by relative prices of exports and relative prices of imports respectively. Point to be kept in mind is that, balance of Trade and Output are also inter-dependent, whereas BT is nothing more than difference between Exports and Imports. It is also important to be noted that, Balance of Trade

definitely affects the level of Reserves, and Reserves have impact on Ms. So we can say that variables are inter-dependent in the model.

Method and Estimations

For the analysis of time series data, first of all Stationarity of data is determined by Augmented Dicky-Fuller test (ADF). The Schwarz Information Criterion is used to select the optimum ADF lag. Stationarity of variables is checked with intercept and with trend also. Series which are non-stationary at level are made stationary by taking difference and then used for estimation.

De Silva (1977) developed a simultaneous equation model and estimated the key equations separately with OLS method. In Pakistan, Chaudhary and Ahmed (1995, 1996) also estimated this model with the same estimation method as De Silva. Then Ch. Aslam and Ghulam Shabbir criticized on prior techniques because OLS method gives biased results for simultaneous equation model, endogeneity problem exists there therefore, the estimates of these studies are not reliable. They used 2SLS technique to estimate the simultaneous model by escaping from the impact of endogeneity.

However the 2SLS is much better than all others but it is suitable only for one or two endogenous variables. In current model we have a lot of variables being determined within the model and independent variables can relate to the error term. So to abstain from endogeneity we are estimating the model by using 3 Stage Least Squares. 3SLS can be used in a system of equations which contains on endogenous variables, i.e. in each equation there are endogenous variables on both the left and right sides of the equations. It does two new things. First it specifies all the equations in the model because it has to calculate the covariance between error terms.

Three Stage Least Square Regression Results

Model Summary:

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
ms	39	3	3.40e+09	0.9709	1398.66	0.0000
md	39	2	4.89e+09	0.9400	617.06	0.0000
y	39	4	3.81e+09	0.9813	2132.50	0.0000
x	39	3	9.02e+08	0.9776	1777.15	0.0000
m	39	4	3.34e+09	0.8285	214.98	0.0000

Endogenous variables: ms, md, y, x, m

Exogenous variables: gbd, bcp, r, I, ge, bt, rpx, er, rpm.

Money Supply equation

$$Ms = 2.4 + 1.39 (R)^{***} + 0.236 (GBD)^{***} + 0.85 (BCP)^{**} + e1$$

R-Squared= 0.972

Adjusted R-Squared= 0.969

Durbin-Watson= 1.97

Money Demand Equation

$$Md = - 566 + 0.722 (Y)^{**\wedge\wedge} - 7.733 (i)^{**\wedge\wedge} + e2$$

R-Squared= 0.94

Adjusted R-Squared= 0.93

Durbin-Watson= 1.36

Output Supply Equation

$$Y = 1.57 + 2.82 (GE)^{\wedge} + 1.16 (BCP)^{\wedge\wedge} + 1.54 (BT)^{\wedge} - 1.30(i)^{**\wedge\wedge} + e3$$

R-Squared= 0.984

Adjusted R-Squared= 0.981

Durbin-Watson= 1.6

Export Supply Equation

$$X = - 4.51 + 0.235 (Y)^{**\wedge\wedge} + 26.732 (RPx)^{\wedge\wedge} + 0.85 (ER)^{\wedge\wedge\wedge} + e4$$

R-Squared= 0.98

Adjusted R-Squared= 0.97

Durbin-Watson= 0.52

Import Demand Equation

$$M = - 7.45 + 0.35 (Y)^{**\wedge\wedge} + 86.98 (Rpm)^{\wedge\wedge} + 0.39 (R)^{\wedge\wedge\wedge} - 7.35 (ER)^{\wedge\wedge\wedge} + e5$$

R-Squared= 0.84

Adjusted R-Squared= 0.824

Durbin-Watson= 1.7

Regression Interpretation

Basic results of simultaneous equation model are reported above which is estimated by using 3-Stage Least-Square Regression. In general the results are reliable and logical because the model goodness of fitness explanatory indicators: R-Square and Chi-Square values are fairly high for each equation. Furthermore it is hereby stated that there is no serious problem of autocorrelation for each equation, except the “export supply equation” as confirmed by Durbin-Watson test. On the basis of above empirics, we can discuss the results and linkages separately as following:

Money Supply Equation

The results of money supply equation signify that Money Supply (MS) is positively related to credit provided to private sector (BCP) and Government borrowings (GBD) i.e. domestic sources of financing the budget deficit. As well as the foreign reserves (R) also positively contribute to money supply. Other things remaining same, the results indicate that 10 units increase in Reserves will lead to increase the Ms by 13.9 units. Ten units increase in GBD will cause the MS to increase by 2.3 units. And 8.4 units of MS will increase due to 10 units increase in BCP and vice versa.

Money Demand Equation

The results of this equation indicate that nominal Money demand (Md) is positively affected by real income (Y), describes that people demand for money when their real income goes up. And negatively related to interest rate say the opportunity cost of holding money. According to estimated results, one unit in income will lead to increase the money demand by 0.7 units. And one unit increase in interest rate will lead to decrease the money demand by 7.73 units by keeping other things constant.

Output Supply Equation

The estimates show that real output is positively related to Credit provided to private sector because it enhances the level of investment and then employment in the country. Output is positively related to Government expenditures and Balance of Trade but negatively with interest rate. Empirical findings show that one unit increase in Government expenditures (GE) will lead to increase 2.82 units of output. 1.15 units increase in output, in response to increase one unit of (BCP). And 1.5 units due to 1 unit of BT. On the other hand, one unit increase in interest rate will push the output down by 1.3 units.

The results of output equation suggest that credit provided to private sector and Government expenditures play a significant role in economy to boost up the level of real output through level of investment and higher productive capacity. Private investment is of key importance in any economy as well as in Pakistan. So the interest rate must also be kept low for the enhancement of domestic investment level. Ceteris-paribus condition is assumed.

Export Supply Equation

Regression results enabled us to explore the linkages of Exports with level of real output, Relative prices of exports and Exchange rate. Estimations show that exports also change by 0.23 units when one unit of output changes. Exports are highly sensitive to relative prices of exports, as production and supply of exports becomes more profitable when relative prices of export commodities move upward and exporters will try to expand exports rapidly. The positive sign of Exchange rate describes the positive relation with exports of goods and services.

Import Demand Function

Our results indicate that there is positive relationship of imports level with real output and negative with nominal exchange rate. Say one unit increase in real output will increase capacity to import 0.34 units. Equation shows the negative impact of exchange rate on import in the sense that one unit increase in nominal exchange rate will decrease the level of imports by 7.35 units. Implying that depreciation of domestic currency might have harmful impact on imports. And one unit increase in foreign reserves will increase 0.39 units demand for imports.

Now we discuss about negative impact of relatively prices of imports and exchange rate on demand of imports. Commonly it's true that a rational consumer (importer) must avoid importing because relative prices of imports are arriving above and must try to bring in country, the cheaper commodities. However sometimes in case of Pakistan, relative prices of imports and level of imports move in the same direction. That's just because unfortunately we are forced to import many commodities like petroleum products, heavy machinery, pharmaceuticals, edible oils, iron ore and steel and many other things however their prices are. We see the prices of petroleum products are continuously growing day by day but still, we cannot cut down the imports of such products. It tells us the story about balance of trade

in Pakistan. Balance of trade remains negative in Pakistan because our exports are sensitive to prices but not the imports. Exports may move up as well as down, but our imports always go-up. Pakistan is import oriented country, depreciation of domestic currency may have effects on exports but imports cannot fall significantly.

Conclusion

The study was engaged to investigate the impacts of budget deficit on macroeconomic variables such as output level, balance of trade and inflation. Major conclusion drawn from this empirical estimation practice is that the government budget deficit has significant impact on inflation and balance of trade. The ways through which budget deficit can be financed, are inflationary. We have analyzed that the domestic borrowings of government helps the money supply to increase same like the credit provided to private sector gives boost to money supply. Reserves can also be used to finance for the deficit, so gathering the foreign reserves is accomplished with overall extra money supply. More alarming situation is that the government enforces central bank to print new currency for the sake of deficit fulfillment. This definitely tends to create upward pressure on inflation.

On the other hand, changes in money supply have indirectly affected the balance of trade and level of foreign reserves as well. Fluctuations in relative prices of imports and exports may exist due to fluctuations in money supply (inflation) and this may have impact on level of exports and imports. So we can say that due to budget deficit, balance of trade is also affected indirectly through relative prices and money depreciation/appreciation.

However the government spendings are fruitful for economic growth but it costs much more than its benefits, when budget goes to deficit due to extra spending. For the moment we see an increase in growth due to government spending but after that many macroeconomic variables are disturbed by this activity. Above discussion and our estimated results also indicate that cost of low investment, higher interest rate, higher debt, unfavorable balance of trade and heavy depreciation of currency is bigger than the benefit of one time bigger growth.

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Role of Microfinance Institutions in Entrepreneurship Development in District Gujrat, Pakistan

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Abstract

Microfinance and entrepreneurship help as a combine tool to contribute in development. The foremost objectives of this paper is to see the role of microfinance institutions in entrepreneurship development and also measure the level of satisfaction of microfinance institutions clients toward their respective banks considering primary source of data at district level. The sample of 150 microfinance bank clients residing in Gujrat district has been interviewed. Descriptive analysis use in this paper and also non parametric test Kruskal-Walli and Mann-Whitney test used. This study concludes that microfinance institutions play a significant role in entrepreneurship development in district Gujrat Pakistan and the clients who are taking loan from the Tameer bank they use this amount to start a business than the other ones who use it for marriage, education house building purpose etc.

Keywords: Microfinance institution, Entrepreneurship, KruskalWalli, Mann-Whitney

Introduction

In developing countries there are nearly 90 percent of the people which have lack of access to financial services from the institutions, either for credit or saving purpose. Especially for the poor who already have lack assets this situation become more critical for them. In microenterprises generally there is need for small capital but it is still difficult for the poor people to manage even that small quantity of capital. Resultantly, these lacks of capital hinder the growth of microenterprise (Robinson, 2002).

Entrepreneurship is one of the commonly terms used in business, management, economics and other related fields. Entrepreneurship means innovation, creativity, leadership, profit maximization or start of a new business. Entrepreneurship helps in the process to increase economic growth, employment generation, increase national income and also creating innovation (Ismailov and Zahid, 2008).

Two schools of thought mainly discuss about entrepreneurship as: Schumpeter's theory of entrepreneurship and Austrian theory of entrepreneurial discovery. The Schumpeter theory explains entrepreneurship as innovation with a combination of tool and forces and the different methods to produce new innovative products as for the Austrian theory of entrepreneurship, entrepreneur anticipating market and need of customers exactly and correctly and produce more cheaply than competitor and earn profit. (Swedburg, 2000).

Microfinance hits the history in Bangladesh when Dr. Muhammad Yunus, Father of Microfinance, lend the first micro loan from his own pocket. The purpose is to save these poor people from the local moneylenders who charge high interest rates and also to establish income generating activity for them. In 1976, Muhammad Yunus launch the research

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project to provide microcredit and banking services to the poor people. In addition to that, microcredit program is based on unique mechanism such as group lending, social collateral and distinctive payment methods. It isn't based on checking credit history, income sources and bank balances but works on character based lending and thus managed to give loans to those who lacking credit histories. They are also denied of access to conventional finance. In 1983, Mohammad Yunus formally establishes a Grameen bank which is a milestone in the development of the microfinance industry. The objective of this bank is to give small loans at affordable rates to poor people, especially to women. The high number of clients and extremely high repayments rates is an impressive achievement for the bank. The microcredit program has not been restricted to Bangladesh as the similar activities are also under way in different parts of the world including Indonesia (1972), India (1990s) and, more importantly, in Latin America where microcredit operations were rapidly developed. In the end, Dr. Muhammad Yunus is awarded a Nobel peace prize for his great achievement in 2006 (Bateman, 2010).

Microfinance is one of better tools to reduce poverty, increase economic growth and development in the economy. Asian Development Bank (ADB) defines microfinance as the provision of a broad range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low income households and, their microenterprises (ADB, 2000).

Microfinance has three types of sources formal institutions such as rural banks and co-operatives, semi-formal institutions, such as nongovernment organizations (NGOs) and informal sources such as money lenders and shopkeepers. Microfinance provides two types of services financial services and non-financial services. Financial services include saving, microcredit, money transfer, micro insurance etc. Non-financial services include training, counseling, education, health etc. In both microfinance and micro entrepreneurship the common object is the creation of employment opportunities for the poor people and also indicts decrease poverty.

Microfinance institutions support two types of micro entrepreneurs: one is potential micro entrepreneur and the second is existing micro entrepreneur. The micro entrepreneurs mean the creation and the existing entrepreneurs mean the expansion of that entrepreneurship. Microfinance Institutions assist potential micro entrepreneurs by providing financing and training to enable them to start a business activity. This help to potential micro entrepreneurs is for pro-poor mostly. The objective of targeting the poor is to make them able to start their own business and enabling them to increase their revenues and to reduce their level of poverty. Microfinance institutions also provide services to existing micro entrepreneurs. Other financial services available to the existing micro entrepreneurs are money transfer using mobile banking to facilitate their transfers and other financial operations, micro insurance to insure their business operations and the unexpected that affect the smooth functioning of the business like the sickness or the death of the micro entrepreneur. The microfinance institutions also offer non-financial services to existing micro entrepreneurs enabling them to expand and develop their activities, their skills and to empower them. The nonfinancial services supply to existing micro entrepreneurs is managerial training, technical assistance, and analysis of the sector of activity (Ledger wood, 1998).

Various studies have been conducted before on role of microfinance in entrepreneurship development but there is not a single study available on role microfinance institutions in entrepreneurship development. So the present study contributes in this context and finds out the role of microfinance institutions in entrepreneurship development in district Gujrat Pakistan.

Next session, briefly, explains overview of microfinance and entrepreneurship in Pakistan. Section II explains literature review, Section III theoretical link of microfinance and

entrepreneurship development, Section IV consists on methodology used in paper. Section V discusses the results drawn from the estimations. Section VI presents the conclusion and some policy implications which are based upon the study.

Overview of Microfinance and Entrepreneurship in Pakistan

The important objective of microfinance is poverty reduction and social mobilization, the government of Pakistan doing efforts to establish and improve the foundations of microfinance in banking sector. In 2000 khushali bank was establish as the first specialized microfinance bank.

Eight Microfinance Banks (MFBs) have been established in Pakistan, in which there are three leading Microfinance Institutions (MFIs), two world's largest MFIs have been started operations in Pakistan, which reflect the private sector participation and institutional diversity. Legal status of MFIs shows in appendix Table No. 2.1.

Creation of employment has remained a first priority in developing countries like Pakistan because the main source of an individual's income is associated with employment opportunities. Income and quality of job both affect social welfare significantly. Employment and economic development are concomitant. Among the various employment statuses, self-employment has attained a big deal of attention presently. Policy makers especially in developing countries are mainly focusing on promoting self-employment and small business.(Majeed, A , 2009).

The total estimated population of the Pakistan is 174.4 million in the year 2011-2012 and has been showing an increasing trend for years. In Table 2.2, the situation of labor force, employed and unemployed is given. The fact and figure show that there is significant change in employment rate and unemployment and labor force participation rate over the years. In 2003-04 labor force is 45.5 and 2005-06 is 50.33 and this rate increase year by year and in 2010-11 total labor force is 57.24. Therefore self-employment is considered as a best solution for the employment creation. The share of self-employed worker is 33.3% during the year 2010-2011. (Labor force survey 2011-2012).

Table 2.2: Civilian Labor force, Employed and Unemployed for Pakistan

Year	2003-04	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Labor force	45.5	50.33	50.33	51.78	53.72	56.33	57.24
Employed	42	46.95	47.65	49.09	50.79	53.21	53.84

Source : Various Issues of Labor Force Survey, 2010-11

Table 2.3 shows employment status by sex in Pakistan. The total share of employers by sex in 2010-2011 is 0.1 percent and the share of male is 1.4 percent and the share of female is 1.8 percent. The total share of self-employer by sex in 2010-11 is 15.6 percent and the share of male is 39.9 and share of female is 40.5 percent. The total share of unpaid family helpers in 2010-11 is 63.4 percent and the share of male is 27.7 percent and the share of female is 17.3 percent and the total share of employees in 2010-11 is 20.9 percent and the share of male is 36 percent and the share of female is 40.4 percent.

Table 2.3 Employment status by Sex (%)

Total	2008-09		2009-10			2010-11			Total
	Male	Female	Total	Male	Female	Total	Male	Female	
Employers	1.2	1.5	0.1	1.3	1.6	0.1	1.4	1.8	0.1
Self employed	33.3	38.7	13.1	34.2	40	14.6	39.9	40.5	15.6
Unpaid family helpers	29.7	20.2	65	29.1	18.7	66.3	27.7	17.3	63.4
Employees	35.8	39.6	21.8	35.4	39.7	20	36	40.4	20.9
Total	100	100	100	100	100	100	100	100	100

Source : Labor force survey 2010-2011

Literature Review

Different studies have been conducted on different aspects of microfinance such as importance of microfinance, beginning of microfinance, performance of microfinance institutions, effectiveness of microfinance etc. However this study is concerned with role of microfinance on entrepreneurship development. The review of different studies is presented below:

Gobbi et al (2005) has study on “Nepal and Pakistan micro-finance and microenterprise development: Their contribution to the economic empowerment of women” used primary data interviewed more than 100 women from the three different MFIs from each country. They found that micro-finance and microenterprise development may serve as a tool towards the positive social change and contribute in improving the political and social status of women.

Bharti et al. (2006) has made a study on the Microfinance and sustainable micro entrepreneurship development. They found that Microfinance plays an important role in microenterprise development. Microenterprise needs not only credit but they also need a variety of other services for its growth and development. Credit alone is not sufficient for promoting microenterprise but in the presence of lack of access to credit it is also difficult for any non-financial support to work. The role of various microfinance services such as savings, insurance and money transfer in promoting sustainable micro entrepreneurship need to be explored and given attention. Government and non-government entities also need to work together for creation of enable environment. Then these microenterprises can grow and contribute efficiently towards the larger objective, which is to reduce poverty.

Ismailov and Zahid (2008) elaborate that entrepreneurship and microfinance tools for empowerment of poor case of Akhuwat Pakistan. The study uses qualitative approach for research. They found that Akhuwat is a nonprofit organization which is providing interest free loans to the poorest people of Pakistan. And they have basic that everybody should think firstly about their local problems, if they look at problems locally, there would not be any global problems in the world. To achieve Sustainable development is a problem, that is now globally dispersed and consistently growing number of initiatives of Social Entrepreneurs trying to add their little value to social value creation.

OJO Olu (2009) has tried to find out “Impact of microfinance on entrepreneurial Development: the case of Nigeria” used survey research design. He found that in Nigerian economy there is positive relationship between microfinance institution and extension of GDP in the economy but there is not significant impact of these institutions on interest rate. The results summarized from the study shows that the microfinance institutions and their activities need a long time in the determination of the pattern and level of economic activities and development in the Nigerian economy.

Muktar (2009) has tried to find out “The role of microfinance banks in the promotion and development of entrepreneurship in semi urban and rural areas” used secondary data. He found that The Central bank of Nigeria (CBN) recognized microfinance use as a tool to reduce poverty through promoting the micro and small entrepreneurs. The CBN only focus on sustainable financial services available for those who don't have access to formal financial resources. Microfinance institutions main objective is to promote these entrepreneurs.

Elle (2009) studied Microfinance and Entrepreneurship in Cameroon used Schumpeter model and Foyolle model of definitions of entrepreneurship. He found that microfinance institutions to boost entrepreneurship in Cameroon prefer to finance expansion than creation and also prefer to supply lending, savings and money transfer services than micro insurance and training services to micro entrepreneurs. All the services are important for micro entrepreneurs for a development of an efficient micro entrepreneurship in Cameroon.

Chowdhury (2009) studied Microcredit, micro-enterprises, and self-employment of women experience from the Grameen Bank in Bangladesh. Their household based survey analysis is consists of five hundred and seventy households. The estimated results of analysis indicate that the participation in the microcredit program of the Grameen Bank does not promote women employment and not even enabling them to start micro-enterprises at the household level. But, the opposite results are true for male, which indicate that the same participation significantly helps husbands of women members to start micro-enterprises and to create self-employment opportunities for them and increases capital of existing household micro-enterprises. But that are controlled by husbands or other male members in the household.

Kessy (2009) studied on “Microfinance and enterprises performance in Tanzania: Does gender matter”? Results of the paper showed that female owned enterprises grow slowly as compared to male owned enterprises but there is not any evidence on statistical differences in average sales revenue between male owned enterprises and female owned enterprises, the level of assets and number of employees is different among these two groups. Both groups have Different motives of owning based upon the results females are risk averse as compare to males. Due to risk averse returns of female owned enterprises were also expected to be low. The low level of growth of females owned enterprises also recounts to our theoretical base which sees females in developing countries treated as a disadvantaged group which are is groomed for opening and running business but both females owned enterprises and males owned enterprises experienced microfinance interventions; males owned enterprises demonstrated higher level of growth than females owned enterprises. In particular the females who have benefited from microfinance services need for special training that will shape their capacity in doing business with growth visions through training females are anticipated to change their behavior.

Olaniyi (2011) makes a study on “Effect of Microfinance Organization on Small and Medium Scale Enterprises in Nigeria” used primary data and selected 35 SME's randomly. The results of this study was 14 percent of the SMEs were classified as Micro-business because they have Ten or less employees with total asset of one hundred thousand dollars or less while 86 percent are small and medium enterprises because they have total assets of about three million dollars and turnover of three million to five million dollars.

Popoola et-al (2011) argues the impact of microfinance institutions on the development of small scale enterprises in Nigeria. The study used both primary and secondary data. They results showed that positive and significant relationship exist between microfinance institutions loans and small scale performance. There is positive contributions of microfinance institutions loans towards promoting small scale enterprises market share, production effectiveness and competitiveness.

Tonelli (2011) studied on Entrepreneurial Becoming: an Educational Pathway out of Poverty. The finding of this paper is the process of entrepreneurial becoming that is not just about

access to finance but especially learning and, when successful, this process supports the transformation of survival micro-enterprises into entrepreneurial micro-businesses. The concept of ‘becoming’ contains an implicit temporal dimension. Becoming suggests a transformation over time, a change from what one is already. In this study a significant change in understanding how a business needs to operate, in recognizing opportunities, thinking more creatively, and building self-confidence.

Above different studies show that various studies conduct on microfinance and entrepreneurship development. In this paper I will find the role of microfinance institutions in entrepreneurship development in district Gujrat Pakistan and also measure the level of satisfaction of microfinance institution clients toward their respective banks there is no study find out on the District Gujrat Pakistan.

Theoretical link of Microfinance and Entrepreneurship Development

For any business development, credit is an important thing. Absence of credit is a wall for investment and also for the economic growth. Access to credit can increase the adoption of new and more advance technologies which allow the poor households to expand their enterprises and improve their income level and reduce poverty. Availability of credit increases the level of household’s productive and physical assets and also improves the consumption of the poor.

Olajide (1980) recognized two sources of credits for entrepreneurs named as internal and external. He found that when the internal funds increase from net flow due to entrepreneurial activities, the external funds also increase from loans extended by micro finance providers. Rural enterprise needs capital which is held by microfinance providers, as financing to microenterprise is universal not only in rural areas but even in urban areas. Credit for small and medium enterprises provides an important tool for the development of industrialization and improving the efficiency of the enterprise and increase productivity.

The clients of microfinance banks are mostly self-employed low income entrepreneurs in urban and rural areas and include traders, subsistence farmers, street vendors, service providers etc.

Methodology

Sampling

This study use primary data, which is collected from sampled population by preparing comprehensive questionnaire. Total area of Gujrat is 3,192 km and total population of Gujrat is 2,948,008. District Gujrat is comprised by 3 tehsils and 117 union councils, including 89 rural and 28 urban. Gujrat is an ancient city of Punjab and famous due to their furniture industry pottery and fan industry (Wikipedia).

Eight microfinance banks and organizations work in District Gujrat and in this study three microfinance banks randomly selected Tameer bank, Khushali bank and Kshaf bank. Sample size was used in this study is 150.

Table 6. 1 Researcher own processing	
Banks	Customers
Kashf Microfinance Bank	50
Khushali Bank	50
Tameer Bank	50

This study uses purposive sampling as the data for the clients is not available and microfinance banks also do not provide their clients personal information. The data is collected by face to face interview of the respondents. The questionnaire consists of four major sections as: first section contains information of the respondents regarding their personal profiles, second section deals with business profile, third section inquires about the information regarding the facilities provided by the microfinance institutions to the clients and last section collected information regarding the amount of loan, type of entrepreneur training given by organization to the clients. SPSS software is used to analyze the data. Chi-Square test is used only to investigate the association between banks and respondent's demographic characteristics (sex, area, age, income, education, profession and major source of family income). Non-parametric tests as: Kruskal-Wallis and Mann-Whitney tests are used for econometric analysis.

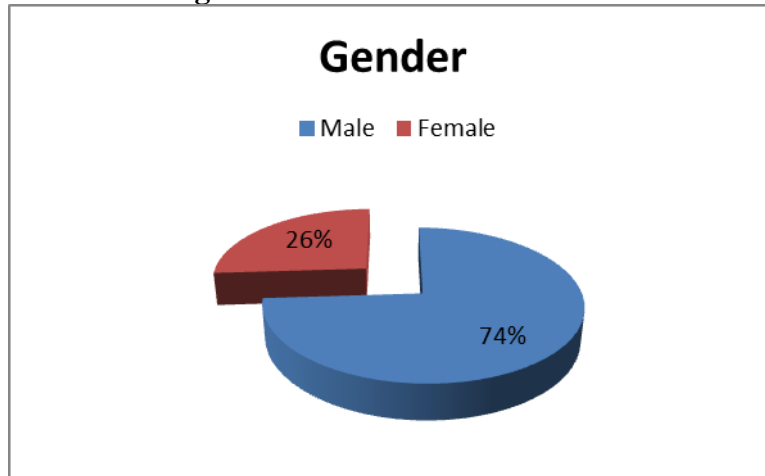
Results and Discussion

Results and discussion divided by in three sections first section base on descriptive analysis second section discuss role of institutions in entrepreneurship development and the third section deal with satisfaction of bank clients.

Descriptive analysis

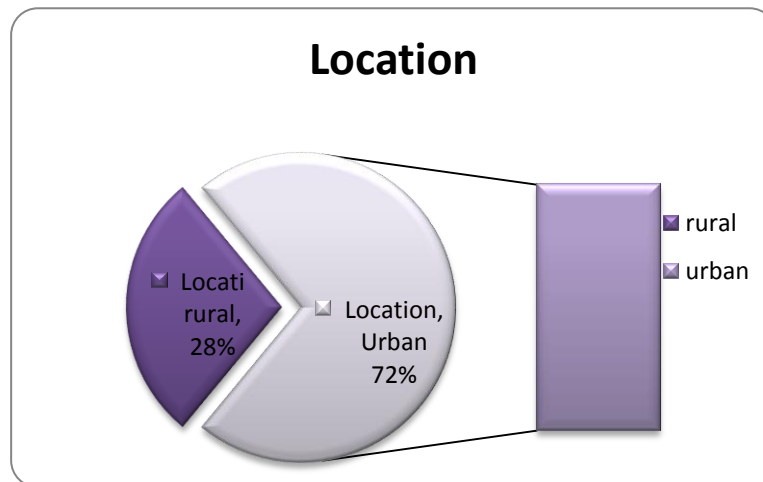
The Figure 6.1 is showing that 26 percent of the clients are females and 74 percent are male. The greater proportion is male in the clients of the microfinance institution.

Figure 6.1: Gender of the Clients



The Figure 6.2 is showing that 28 percent are those who live in rural areas and 72 percent are those who live in urban areas. This shows that most of the clients are from the urban areas.

Figure 6.2 Location of respondents



People have different purpose to take loan from microfinance institutions such as for education, for social work, for marriage, for house building, for start a new business or finance their existing business. The Figure 6.3 is showing that most of the clients take loan for the purpose other than to start a business as 40 percent clients take loan to start a business while 60 percent are those that access to microfinance to take loan to meet the other needs of life.

Figure 6.3: Loan Taken by the Clients

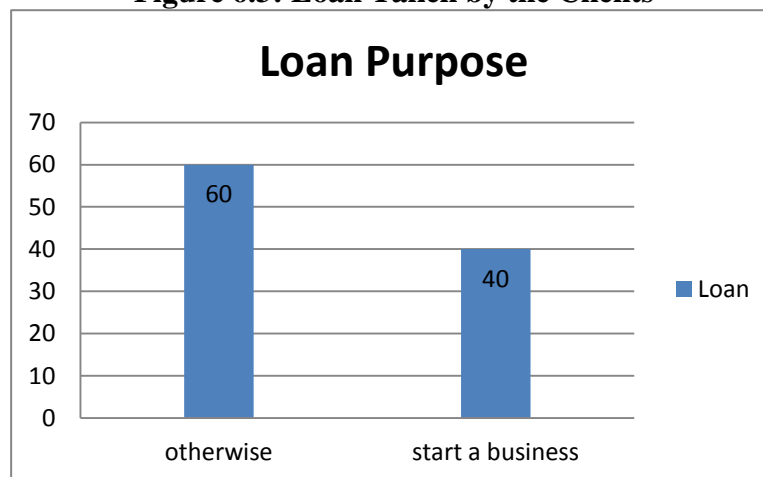


Figure 6.4 is showing that before the microfinance institution loan acquisition, only 24 percent clients hold a business and 76 percent are those who don't hold the business. So microfinance loan play a vital role in business

Figure 6.4: Family Business before Taking a Loan from Microfinance Institution

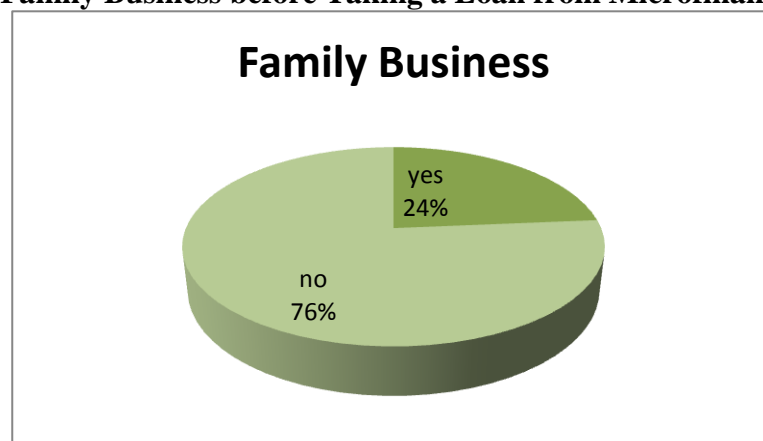


Table 6.2 is showing the Demographic profile of the clients in percentage. The variables as source of finance other than microfinance ($p = 0.042$) and purpose of loan ($p = 0.037$) are significant at 5 percent level and significantly differ between male and female clients. The statistics shows that out of total 26.2 percent clients, who says that they have access to finance other than microfinance institution, 16.1 percent are males and 10.1 percent are females while those who say they don't have finance other than microfinance institution are 73.8 percent in which 57.7 percent are males and 16.1 percent are females. As the purpose of loan, those who say that they have taken loan to start a business are 27.3 percent in which 16 percent are male clients and 11.3 percent are females and those who report that they have taken loan to support and strengthen the existing business are 67.3 percent in which 54.7 percent are males and 12.7 percent are females.

The variables as profession of the respondents ($p = 0.085$), major source of income ($p = 0.077$) and education ($p = 0.083$) are significant at 10 percent level. Those who say they are government employee, .7 percent is male and 1.3 percent is females, 10 percent males and 3.3 percent females have private job holder and 58 percent male and 19.3 percent females report that they are self-business holder. Among those who inform that their major source of income of household is employment, 22 are male and 13 are females and the clients who say their major source of income is business, 53.3% are male and 15.3 percent are females. Most of the respondents' response is business as their major source of income. As education is also statistically significant and male are more educated as compare to the females.

Table 6.2: Demographic Profile of the clients in percentage

Variable	Gender		
Profession***	Male	Female	Total
Government job	.7%	1.3%	2%
private job	10%	3.3%	13.3%
self-business	58%	19.3%	77.3%
agriculture	2%	.0%	2%
Labor	3.3%	.7%	4%
Unemployed	.0%	1.3%	1.3%
$X^2 = 9.667$ df = 5 Sig. = 0.085			
Family Business	Male	Female	Total
Yes	16.1%	10.1%	26.2%
No	57.7%	16.1%	73.8%
$X^2 = 0.795$ df = 1 Sig. = 0.373			
Major Source of Income***	Male	Female	Total
agriculture	4%	.0%	4%
employment	14.7%	8.7%	23.3%
business	53.3%	15.3%	68.7%
remittances	2%	1.3%	3.3%
others	.0%	.7%	.7%
$X^2 = 8.443$ df = 4 Sig = 0.077			
Education***	Male	Female	Total
Illiterate	14%	3.3%	17.3%
Primary	8%	6%	14%
Middle	18.7%	4.7%	23.3%
Matriculation	22.7%	4.7%	27.3%
Secondary	5.3%	4.7%	10.0%
Graduation and	5.3%	2.7%	8%

above				
$X^2 = 9.739$		$df = 5$		$Sig. = 0.083$
Purpose of Loan**	Male	Female	Total	
To start a business	16%	11.3%	27.3%	
To strengthen existing business	54.7%	12.7%	67.3%	
For house building	.7%	.0%	.7%	
For Marriage	.7%	.0%	.7%	
Social work	.0%	.7%	.7%	
Other	3%	1.3%	3.3%	
$X^2 = 11.866$		$df = 5$		$Sig. = 0.037$

*shows significance at 1%

**shows significance at 5%

***shows significance at 10 %

Table 6.3 is showing the Demographic profile of respondents by location in percentage. The variables as source of finance other than microfinance ($p = 0.597$) significant at 1 percent level and purpose of loan ($p = 0.032$) are significant at 5 percent level and significantly differ between rural and urban clients. The statistics shows that total 26.7 percent clients, who says that they have access to finance other than microfinance institution, 8.1 percent are rural and 18.1 percent are urban while those who say they don't have finance other than microfinance institution are 73.8 percent in which 19.5 percent are rural and 54.4 percent are urban. As the purpose of loan, those who say that they have taken loan to start a business are 27.3 percent in which 11.3 percent are rural clients and 16 percent are urban and those who report that they have taken loan to support and strengthen the existing business are 67.3 percent in which 14 percent are rural and 53.3 percent are urban.

The variables as purpose of loan ($p = 0.032$) significant at 5 percent level. Those who say they are government employee 1.3 percent are rural and .7 percent is urban, 4 percent rural and 9.3 percent urban have private job holder and 20.7 percent rural and 56.7 percent urban report that they are self-business holder. Among those who inform that their major source of income of household is employment, 6.7 are rural and 16.7 are urban and the clients who say their major source of income is business, 17.3 percent are rural and 51.3 percent are urban. Most of the respondents' response is business as their major source of income.

Table 6.3: Demographic of Respondents by Location in percentage

Variables	Location			
Profession	Rural	Urban	Total	
Government job	1.3%	.7%	2%	
private job	4%	9.3%	13.3%	
self- business	20.7%	56.7%	77.3%	
agriculture	1.3%	.7%	2%	
Labor	.7%	3.3%	4%	
Unemployed	.0%	1.3%	1.3%	
$X^2 = 5.743$		$df = 5$		$Sig = 0.332$
Family Business	Rural	Urban	Total	
Yes	5.4%	18.2%	23.6%	
No	21.6%	54.7%	76.4%	
$X^2 = 0.404$		$df = 1$		$Sig = 0.525$
Other Source of Finance	Rural	Urban	Total	
Yes	8.1%	18.1%	26.2%	

No	19.5%	54.4%	73.8%
$X^2 = 0.280$			df = 1
			Sig. = 0.597
Major Source of Income	Rural	Urban	Total
agriculture	2.7%	1.3%	4%
employment	6.7%	16.7%	23.3%
business	17.3%	51.3%	68.7%
remittances	.7%	2.7%	3.3%
others	.7%	.0%	.7%
$X^2 = 7.574$			df = 4
			Sig. = 0.108
Education	Rural	Urban	Total
Illiterate	4.7%	12.7%	17.3%
Primary	6%	8%	14%
Middle	4.7%	18.7%	23.3%
Matriculation	8%	19.3%	27.3%
Secondary	3.3%	6.7%	10%
Graduation and above	1.3%	6.7%	8%
$X^2 = 4.434$			df = 5
			Sig. = 0.489
Purpose of Loan**	Rural	Urban	Total
To start a business	11.3%	16%	27.3%
To strengthen existing business	14%	53.3%	67.3%
For house building	.7%	.0%	.7%
For Marriage	.0%	.7%	.7%
Social work	.0%	.7%	.7%
Other	2%	1.3%	3.3%
$X^2 = 12.178$			df = 5
			Sig. = 0.032

*shows significance at 1%

** shows significance at 5%

***shows significance at 10%

Role of Institutions in Entrepreneurship Development

Eight microfinance banks and organizations work in District Gujrat but major three banks work in Gujrat Tameer bank, Khushali bank and Kshaf bank. Figure 6.5 shows Khushali bank clients use loan for the other purpose and Tameer bank clients use loan to start a business. Tameer bank plays wider role to encourage its clients to start a new business than the Khushali and Kshaf bank.

Figure 6.5: Entrepreneurship and MFI

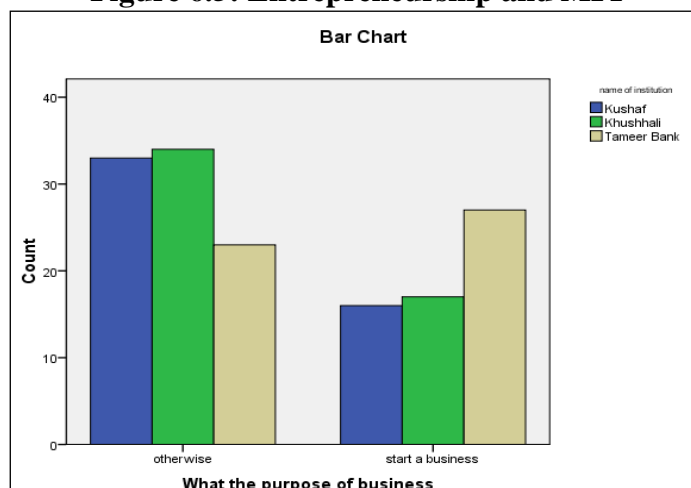


Table 6.4: Microfinance institutions and entrepreneurship development

Variable	Name of Institutions		
Entrepreneurship**	Kshaf Bank	Khushhali Bank	Tameer Bank
Otherwise	22%	22.7%	15.3%
To start a business	10.7%	11.3%	18%
<i>Chi square value = 6.130</i>		df = 2	Sig. = 0.047

** shows significance at 5%

Table 6.4 is showing that the clients those who start a business differ significantly with respect to microfinance institutions. The p-value (0.047) is showing that it is significant at five percent level. Those who are taking loan from the Tameer bank, they use this amount to start a business than the other ones who use it for marriage, education etc. The 18 percent clients of the Tameer bank response that they have started a business with the amount of the taken loan than any other bank as 11.3 percent of khushhali bank and 10.7 percent of the kshaf bank.

Kruskal-Wallis and Mann-Whitney Tests are nonparametric tests. Kruskal-Wallis test allow the comparison between more than two independent groups. It is used when three or more sets of scores are to be compared. The test statistics value for Kruskal-Wallis exceeds the critical level of 0.05 percent level, then the null hypothesis is rejected which means that the sample come from the different populations. The Mann-Whitney test is used only when to make the comparison between two set of groups only. This test set the null hypothesis as $H_0 =$ the population medians are same.

Table 6.5 Role of MFI in Entrepreneurship Development

Variable	Mean Rank	Sum Rank
Institution**		
Otherwise	69.57	6261.50
To start a business	84.39	5063.50
Mann-Whitney U test	2166.500	
Wilcoxon W test	6261.500	
Z value	-2.171	
Sig.	.030	

**significance at 5% level

Table 6.5 shows the role of microfinance institutions in entrepreneurship development which informs that the mean rank value (84.39) for those who start a business is statistically different in ranking to those who say otherwise (69.57). This is significant at 5 percent level of confidence as its p-value is (0.030).

Table 6.6 shows the ranking of the variables and test statistics of these variables as Mann-Whitney, Wilcoxon value, Z and p-values. The variables education of the clients (0.000) and other sources of income of the clients' families (0.007) highly significant at 1 percent level while the institutions (0.030), age of the respondents (0.019), profession of the respondents (0.032) are significant at 5 percent level. The mean rank value of the education with respect to start a business (95.92) is showing that the more the educated, the more the chances that he invest the amount of loan to start a business than the illiterate. The clients those who respond that they have other sources of finance else than micro credit, they have don't use it for starting a business than those of who say they don't invest in it business. The mean rank value (81.88) for those who report they don't use it to start a business is higher than those who invest it in other than business. The mean rank value (80.04) for the profession of the respondent is showing that it is low for those who to start a business than to otherwise. The mean rank value for the age is showing that (82.18) ranked high than that of who start a business among the other age level of the clients.

Table 6.6 Mann-Whitney Test

Name of Variables	Mean Rank	Test Statistics	
Institutions**		Mann-Whitney U	2166.500
Otherwise	69.57	Wilcoxon W	6261.500
To start a business	84.39	Z	-2.171
		Sig.	0.30
Gender of respondent		Mann-Whitney U	2655.000
Otherwise	76.00	Wilcoxon W	4485.000
To start a business	74.75	Z	-.277
		Sig.	.820
Area of respondent		Mann-Whitney U	2610.000
Otherwise	76.50	Wilcoxon W	4440.000
To start a business	74.00	Z	-.444
		Sig.	.657
Age of respondent**		Mann-Whitney U	2099.000
Otherwise	82.18	Wilcoxon W	3929.000
To start a business	65.48	Z	-2.338
		Sig.	.019

Income of respondent***		Mann-Whitney U	2252.500
Otherwise		Wilcoxon W	4082.500
To start a business	80.47 68.69	Z	-1.757
		Sig.	.079
Education of respondent*		Mann-Whitney U	1474.500
Otherwise	61.88	Wilcoxon W	5569.500
To start a business	95.92	Z	-4.805
		-Sig.	.000
Profession of respondent**		Mann-Whitney U	2291.500
Otherwise	80.04	Wilcoxon W	4121.500
To start a business	68.69	Z	-2.142
		Sig.	.032
Major source of respondent family income*		Mann-Whitney U	2125.500
Otherwise	81.88	Wilcoxon W	3955.500
To start a business	65.92	Z	-2.706
		Sig.	.007
Have you or any family member business before?		Mann-Whitney U	2548.000
Otherwise	75.37	Wilcoxon W	4318.000
To start a business	73.19	Z	-.412
		Sig.	.680
To what extent do you have links with business community?		Mann-Whitney U	2567.500
Otherwise	76.15	Wilcoxon W	4397.500
To start a business	73.29	Z	-.961
		Sig.	.336

*shows significance at 1% level

**shows significance at 5% level

***shows significance at 10% level

Satisfaction of bank clients

Table 6.7 is showing the Kruskal-Wallis Test and ranking of the institutions, p-value and chi square values are also given. The variables as amount of loan (0.007) and attitude of staff (0.000) significant at 1 percent level of confidence and scheme of bank (0.036), quality of institution (0.019), purpose to take loan (0.048) are significant at 5 percent level of confidence.

Interest rate and satisfied with help of microfinance institutions are statistically insignificant. Clients of Kshaf bank are highly satisfied with the amount of loan than the other bank clients the mean rank value for the kashaf bank is (81.96) is higher than that of the other banks as Khushali bank (75.18) and Tameer Bank (69.50). The clients of the Tameer bank report that they are highly satisfied with the attitude of the bank staff than the other banks as its mean rank value (92.82) is showing that it is highly ranked among the others. Clients of Khushali bank are highly satisfied with scheme of loan as the mean rank value for Khushali Bank (81.71) is higher than the other banks as their mean rank is (64.97) for the kashf bank and (79.49) for Tameer bank. The clients of the tamer bank response that they are more satisfied with the quality of the institution that the other institution clients as its mean rank value (86.34) is also showing that it is highly ranked among the other banks. Those who take loan for the purpose to start a business are statistically significantly differing in their ranks as khushali bank (51) is high in rank than the other banks.

Table 6.7 Kruskal-Wallis Test

Variables	Mean Rank	Test Statistics	
Satisfied with amount*			
Kshaf Bank	81.96	X^2	9.844
Khushhali Bank	75.18	Df	2
Tameer Bank	69.50	Sig.	.007
Satisfied with scheme**			
Kshaf Bank	64.97	X^2	6.663
Khushhali Bank	81.71	Df	2
Tameer Bank	79.49	Sig.	.036
Satisfied with attitude*			
Kshaf Bank	61.77	X^2	18.183
Khushhali Bank	71.72	Df	2
Tameer Bank	92.82	Sig.	.000
Satisfied with quality*			
Kshaf Bank	66.46	X^2	7.914
Khushhali Bank	73.56	Df	2
Tameer Bank	86.34	Sig.	.019
Satisfied with rate of I			
Kshaf Bank	72.10	X^2	2.084
Khushhali Bank	81.79	Df	2
Tameer Bank	72.41	Sig.	.353
Satisfied with MFI help			
Kshaf Bank	74.95	X^2	2.482
Khushhali Bank	70.01	Df	2
Tameer Bank	80.14	Sig.	.289
Purpose of business**			
Kashaf Bank	49	X^2	6.089
Khushhali Bank	51	Df	2
Tameer Bank	50	Sig.	.048

*shows significance at 1% level

**shows significance at 5% level

Conclusion

Present study conduct on the role of microfinance in entrepreneurship development and also measure the level of satisfaction of microfinance institution clients towards their respective banks. In Kruskal Walli test, the variables are satisfied with amount of loan, scheme, attitude, quality and purpose of loan is significant. In Mann-Whitney test variables institutions, age, income, education, profession and major source of income are significant. Results of the study suggest that microfinance institutions playing a significant role in micro-enterprise development in Gujrat. Comparatively, clients of Tameer Bank are more likely to confirm that they initiated micro-business by taking the loan. As for clients satisfaction is concerned study suggests mix results. For Results concludes that clients of Kahaf bank more satisfied as compare to the other bank clients.

In policy implementations microfinance institutions should start training for the respondents in future and educate them about the importance of business for the economy. Due to high constraints on credit availability hinder the way of entrepreneurship development so the government should facilitate for credit availability with low interest rates so that the

individuals get credit on easy conditions to start a business and to finance their existing business.

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Appendix

Table 2.1 Legal status of MFI's

Category	MFP	Borrowers June 2010	Market share
Microfinance Banks (licensed and regulated by the State Bank of Pakistan to exclusively service microfinance market)	Khushali bank	389,383	17.8%
	The First Microfinance Bank	225,204	11.2%
	Tameer Microfinance Bank	94,211	4 %
	Network Microfinance Bank	6,224	0.2%
	Pak-Oman Microfinance Bank	8,113	0.5%
	Kashf Bank	14,194	0.8%
	NRSP Bank	-	0.0%
	Rozgar Microfinance Bank	14	0.0%
	Total MFB's	737,343	34.5%
Specialized Microfinance Institutions	Kashf Foundation	323,864	17.3%
	Akhuwat	20,158	0.9%
	Asasah	27,414	1.4%
	ASA	46,478	1.6%
	Buksh Foundation	400	0.0%
	Community Support Concern	11,975	0.6%
	Development Action for Mobilization and Emancipation	46,478	2.7%
	Orangi Pilot Project	47,396	2.7%
	Total specialized MFI	524,163	27.2%
Rural Support Programs running microfinance operation as part of multi-dimensional program	National Rural Support Program	440,902	24.7%
	Punjab Rural Support Program	78,091	40.4%
	Sarhad Rural Support Program	3,533	0.2%
	Thardeep Rural Development Program	31,467	1.7%
	Total Rural Support Program Borrowers	533,993	31.0%
Multi-Sectorial NGOs	BRAC	70,521	3.2%
	Sindh Agricultural and Forestry Workers Cooperative	24,800	27.2%

	Organization		
	Centre for Women Cooperative Dev	11,713	0.6%
	Rural Community Development Society	17,638	1.1%
	Sungi Development Foundation	5,335	0.2%
	Bank of Khyber	-	0.0%
	Jinnah Welfare Society	13,091	0.1%
	ORIX Leasing Pakistan	15,500	0.9%
	Total others	160,321	7.4%
	Total Microfinance Borrowers in Pakistan	1,975,820	100.0%

(Source: Strategic Framework for Sustainable Microfinance in Pakistan JANUARY 2011)