The Informal and Formal Sector Inter-linkages and the Incidence of Poverty in Nigeria: A Case Study of Ilorin Metropolis

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Abstract

Using a multiple log-linear regression analysis, this paper examines the influence of the inter-relationship between the informal sector and the formal sector of Ilorin on the incidence of poverty in Ilorin metropolis. The study, carried out using a structured questionnaire to 480 informal sector operators, reported that 200 and 280 of the operators are not poor and poor respectively. Based on those that are poor, their relationship (in terms of the supply of labour, supply goods and raw materials, supply of equipment, provision of financial and technical assistance) with the formal sector is used in determining their influence on the incidence of poverty in Ilorin metropolis. The incidence of poverty thus proxied with their consumption-expenditure. The results obtained (with the exception of the financial linkage) show that the relationship between the informal sector and the formal sector is inversely related to the incidence of poverty, thus confirming our a priori expectations. The paper further suggests measures that would continue to make the informal sector a catalyst for poverty reduction in particular and relevant to the economic development of Ilorin in general.

Résumé

En utilisant une analyse à régression log linéaire multiple, cet article étudie l'influence de l'inter-relation entre le secteur informel et le secteur formel d'Ilorin sur l'incidence de la pauvreté, dans la métropole d'Ilorin. L'étude a été menée sur la base d'un questionnaire structuré envoyé à 480 opérateurs du secteur informel ; elle a révélé que 200 et 280 personnes parmi les personnes interrogées sont respectivement non pauvres et pauvres. Concernant les pauvres, leur relation (en termes d'offre de travail, d'offre de biens, de matières premières et d'équipement, de fourniture d'une assistance financière et technique) avec le

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secteur formel permet de déterminer leur part dans l'incidence de la pauvreté à Ilorin. L'incidence de la pauvreté était ainsi liée à leur consommation-dépenses. Les résultats obtenus (à l'exception de la relation financière) montrent que la relation entre le secteur informel et le secteur formel est inversement proportionnelle à l'incidence de la pauvreté, ce qui confirme nos conclusions a priori. Cet article propose ensuite des mesures qui continueraient de faire du secteur informel un catalyseur de lutte pour la réduction de la pauvreté, en particulier, et un élément indispensable au développement d'Ilorin, en général.

Introduction

A number of studies[1] on the informal sector have shown that the sector is an important development phenomenon in less developed countries. For instance, it is known to have contributed to job creation, apprenticeship training, income generation, asset accumulation, and the provision of credit facilities and social services. Similarly, interaction in this domain and with the formal sector in terms of the supply of labour, goods and raw materials, equipment and the provision of financial and technical assistance is known to have contributed tremendously to economic development. Take the case of Nigeria, where a visit to formal large-scale supermarkets such as United Trading Company (UTC) and Leventis shows that most of the things they sell (since importation became unprofitable as a result of the excessive devaluation of the Naira) come from the informal sector. On the other hand, many of the goods sold by informal sector petty traders and street hawkers are from the formal sector factories and wholesale enterprises. Also many of the large-scale sector enterprises from trading companies to manufacturing enterprises are engaged in sub-contracting to the informal sector (Abumere 1995).

However, how these linkages have contributed to household welfare have not been clearly stated or investigated in Nigeria because there are very few empirical studies linking these linkages to the improvement of household welfare in any community or communities.

Drawing from the above, the aim of this paper therefore, is to provide an empirical investigation using household survey data and regression analysis to determine the influence of the informal sector (given its numerous contributions to economic development) on the incidence of poverty in Ilorin metropolis through its interactions with the formal sector.

The rest of the paper is structured as follows: In section two a conceptual and empirical overview of poverty and the contribution of the informal sector to economic development proposed for this study is provided. Section three provides a brief background of the study area and the methodology used in determining the influence of the interactions between the informal sector and the formal sector on the incidence of

poverty in Ilorin metropolis. Section four presents and discusses the results. The conclusion is contained in the last section.

Conceptual issues: Poverty and the informal sector

Poverty: Definition and measurement

According to Friedman (1996) to be poor is defined as a form of disempowerment viewed from three dimensions: socio-economic, political and psychological. Socio-economic disempowerment refers to poor peoples' relative lack of access to the resources essential for the self production of their livelihood; political disempowerment refers to poor people's lack of a clear political agenda and voice; and psychological disempowerment refers to poor people's internalised sense of worthlessness and passive submission to authority.

Sanyal (1991) and Schubert (1994) view poverty as either absolute or relative or both. Absolute poverty is that which could be applied at all time in all societies, such as for instance the level of income necessary for bare subsistence, while relative poverty relates the living standard of the poor to the standards that prevail elsewhere in the society in which they live.

Related to the definition of poverty is the measurement of poverty. According to Foster et al (1984) the most frequently used measurements are: (i) the headcount poverty index given by the percentage of the population that live in households with a consumption per capita less than the poverty line; (ii) the poverty gap index which reflects the depth of poverty by taking into account how far the average poor person's income is from the poverty line; and (iii) the distributionally sensitive measure of squared poverty gap defined as the means of the squared proportionate squared poverty gap which reflects the severity of poverty (see also Grootaert and Braithwaite 1998, Ravallion 1996).

The importance of the measurement of poverty is to know who is poor, how many people are poor, and where the poor are located. Levy (1991) stresses that in measuring poverty two tasks have to be taken into consideration; (i) a poverty line which is set at $275 and $370 per person a year for the extreme poor and for the moderate poor respectively must be determined[2]; and (ii) the poverty level of individuals have to be aggregated. He furthermore states that to determine the poverty line two methods are employed: (i) the use of nutritional intake which is set at 2500 calories per head per day; and the use of a list of certain commodities considered essential for survival, for instance, food, housing, water, health care, education vis-à-vis income.

Recent studies by the UNDP advocate the use of Human Development Index (HDI) and Capability Poverty Measure (CPM). According to UNDP (1998) the HDI combines three components in the measure of poverty which include life expectancy at birth (longevity), educational attainment, and improvement in standard of living determined by per capita income. The first relates to survival – vulnerability to death at a relatively early age. The second relates to knowledge – being excluded from the world of reading and communication. The third relates to a decent living standard in terms of overall economic provisioning. On the other hand, CPM focuses on the average state of peoples' capabilities by reflecting on the percentage of people who lack basic or minimally essential human capabilities which are ends in themselves needed to lift one from income poverty and to sustain strong human development.

Causes and consequences of poverty

According to the World Bank (2001), poverty has various manifestations which can be linked to the lack of income and assets to attain basic necessities of life, such as, food, shelter, clothing and acceptable levels of health and education. Such manifestations include the sense of voicelessness and power-lessness in the institutions of the state and society, which subjects the poor to rudeness, humiliation, shame, inhumane treatment and exploitation in the hands of the people in authority; the absence of rule of law, the lack of protection against violence, extortion and intimidation, and the lack of civility and predictability in interaction with public officials, the lack of economic opportunities, threats of physical force or arbitrary bureaucratic power that makes it difficult for the people to engage in public affairs; and vulnerability to adverse shocks and disruptions linked to an inability to cope with them. Example of such shocks and disruptions are when people live and farm on marginal lands with uncertain rainfall, when people live in crowded urban settlements where heavy rain can wipe out their houses, when people have precarious employment in the formal or informal sector, when people are faced with higher risks of diseases, such as malaria and tuberculosis; civil conflicts and wars, when people are at risk of arbitrary arrest and ill treatment at the hands of local authorities and when people most especially women and the minorities are at risk of being socially excluded and victims of violence and crime.

Yahie (1993) reiterates that the factors that causes poverty include: (i) structural causes that are more permanent and depend on a host of (exogenous) factors such as limited resources, lack of skills, locational disadvantage and other factors that are inherent in the social and political

set-up. The disabled, orphans, landless farmers, households headed by females
fall into this category; and (ii) the transitional causes that are mainly due
to structural adjustment reforms and changes in domestic economic
policies that may result in price changes, unemployment and so on. Natural
calamities such as drought and man-made disasters such as wars,
environmental degradation and so on also induce transition poverty.

Discussing the consequences of poverty Von Hautf and Kruse (1994)
highlighted three major consequences: (i) consequences for those affected.
That is, for the people affected, poverty leads to physical and psychological
misery, caused inter alia by inadequate nourishment, lack of medical care,
a lack of basic and job related education and marginalisation in the labour
markets; (ii) consequences for the national economies of countries affected
arising from the formation of slums in cities, a worsening of ecological
problems, particularly as a result of predatory exploitation in the agricultural
sector and through the failure to use the available human resources; and
(iii) consequences for the political and social development of the countries
affected. That is, mass poverty tends to preserve or reinforce the existing
power structures and thus also the privileges of a minority of the population.
In some cases this involves corrupt elites. These privileged minorities in
the population are not generally interested in structural changes for the
benefit of the poor population. As a consequence, mass poverty tends to
inhibit the development of democratic structures and higher levels of
participation in policy decisions.

According to Narayan et al (2000), many households crumble under
the weight of poverty. While some households are able to remain intact,
many others disintegrate as men, unable to adapt to their failure to earn
adequate incomes under harsh economic circumstance, have difficulty
accepting that women are becoming the main breadwinners that
necessitates a redistribution of income within the households. The result
is often alcoholism and domestic violence on the part of men and a breakdown
of the family structure. Women in contrast, tend to swallow their pride
and go out into the streets to do demeaning jobs, or in fact, to do anything
it takes to put food on the table of their children and husbands.

Trends of poverty in Nigeria

In Nigeria, the incidence of poverty was 65.5 percent in 1996. As indicated
in Table 1, this percentage rate represents in absolute term 67 million
people out of an estimated population of about 102 million people.

The poverty situation in Nigeria also displays regional variation, for
example, within the same period the poverty rate was higher in the northern

agro-climatic zone at 40 percent compared with the middle and southern zones at 38 percent and 24 percent respectively (Francis et al. 1996, FOS 1999). Similarly, Nigeria's rank in the Human Development Index remained low at about 0.462, being the 137th out of 174 countries (ADB 2003).

Table 1: Estimated total population and rate of poverty in Nigeria (1980–1996)

Year	Estimated Total Population (in million)[a]	Absolute No. of Poor People (in million)[b]	Percentage (%) that are Poor[c]
1980	64.6	18.1	28.1
1981	66.7	21.3	32
1982	68.4	24.2	35.5
1983	70.6	27.5	39.0
1984	73.0	31.4	43.0
1985	75.4	34.9	46.3
1986	77.9	35.8	46.0
1987	80.4	36.5	45.4
1988	83.1	37.4	45.0
1989	84.9	37.7	44.5
1990	86.6	38.0	44.0
1991	88.5	38.5	43.5
1992	91.3	39.0	42.7
1993	93.5	45.8	49.0
1994	96.2	52.6	54.7
1995	98.9	59.3	60.0
1996	102.3	67.1	65.6

Sources: (a) National Population Commission 1993; Central Bank of Nigeria. Annual Report and Statement of Account (various issues) and Federal Office of Statistics Annual Abstract of Statistics (various issues). (b) Computed by the author from (a) and (c). (C) Federal Office of Statistics (FOS) (1999) Poverty Profile for Nigeria 1980–1996; and Federal Office of Statistics' National Household Consumer Survey (various issues).

The poverty situation in Ilorin metropolis is not too different from that of the whole country. For instance, in the study by Ijaiya (2002) in 1997, the headcount poverty index was estimated at 0.58, representing 58 percent of the population with consumption-expenditure below the poverty line of N1288.00 per month.

Specifically, these trends are manifested in a steady decline in total factor productivity, and decline in real average family income in the rural and urban areas. The decline in GDP at factor cost in 1987 prices at an average annual rate of 1.8 percent between 1981 and 1985 with a slight

increase by only 2.28 percent in 1992, 2.28 percent in 1993 and 1.3 percent, 2.21 percent and 3.25 percent in 1994, 1995 and 1996 respectively also has taken its toll on the level of poverty in the country. Stagnation in agricultural and industrial production, an increase in the rate of unemployment, decline in per capita consumption by 1 percent, an increase in the rate of inflation from 45 percent in 1992 to about 73 percent in 1994 and a deteriorating state of the nation's infrastructural facilities are some of the indicators of poverty (CBN various issues).

The informal sector: Definition and characteristics

The informal sector, often referred to as the subterranean economy, underground economy, shadow economy, non-corporate enterprises, micro-enterprises and petty producers, is defined as a large volume of self employed in developing countries who are engaged in small-scale intensive work such as tailoring, food preparation, trading, shoe repairing, etc. These people are often regarded as unemployed or underemployed as they cannot be included in the national employment statistics but they are often highly productive and make a significant contribution to national income. Their work in general is characterised by low capital-output ratio, that is, the ratio of the level of equipment or capital relative to output is low (Pearce 1992; Stearns 1988; Trager 1987; Wickware 1998).

Fluitman (1989) views the informal sector as a heterogeneous phenomenon which encompasses a wide variety of economic activities which tend to be overlooked in statistics, including all sorts of manufacturing activities, construction, trade and commerce, repair and other services. For example, informal sector workers make beds, pots and pan, they repair watches, cars and radios, they write letters, lend money, run restaurant, and barbering shops in the side walk, they transport goods and people on their motorbikes, they sell fruit and cooking oil and cigarettes by the piece. Informal sector activities are mostly carried out in small units owned and operated by one or a few individuals with little capital, they are usually labour intensive activities which result in low quality but relatively cheap goods and services.

According to ILO (1972) the characteristics of the informal sector include among others: ease of entry, predominant use of local resources, family ownership of the enterprises, small scale of operation, largely labour-intensive technology, acquisition of skills mainly outside the formal system of education and training, and operation in an unregulated competitive market.

The importance of the informal sector

The contribution of the informal sector to economic development is enormous. As Morgan (1989) puts it, 'though detailed statistics on the enterprises are hard to come by owing to lack of extensive databases, it is clear that in many countries their role is extremely important as contributors to the nation's wealth. Experience from economies which have exhibited success in developing the informal sector shows that micro-enterprises are a major engine in industrial and commercial development. These businesses also contribute important connecting points between the various sectors of the economy where flexibility of products and services supplied play a crucial role in the commercial network of the country. They also have in addition the highly desirable quality of being in virtually all cases home grown enterprises and as such do not carry with them the same risks encountered by foreign firms seeking to introduce operating methods that are inapplicable to local conditions'.

Evidence from a number of countries has shown that an increased proportion of employment, income and output are originating from this sector. For instance, the International Labour Office (ILO) has estimated that in the poorest countries, 80 percent of workers operate in the informal and agricultural sector while for middle-income countries the informal/ agricultural figure exceeds 40 percent. On average, 30 percent of workers in developing world cities are informal. In a few cases, this percentage is lower; in many it is substantially higher. According to a recent statistical compilation by the ILO of total urban employment, the informal sector portion accounts for 49 percent in Peru, 40 percent in Ecuador and 54 percent in Columbia. Among 15 Sub-Saharan African nations urban informal employment as a percentage of total informal employment ranges from 9 percent in Zimbabwe to 80 percent in Benin with a median of 49 percent. In five Asian countries, the corresponding percentages range from 17 percent to 67 percent (Wickware 1998).

A study conducted in 1992 by the Economic Commission for Africa indicates that the informal sector's contribution to GDP in the African countries is estimated at about 20 percent and its contribution to the GDP of the non-agricultural sector stood at 34 percent. For instance, its contribution to GDP was 38 percent in Guinea, 10.3 percent in Tanzania, 30 percent in Burkina Faso, 24.5 percent in Nigeria, and 20 percent in Niger. The sectorial analysis of available data shows that trade represents about 50 percent of the activity of the informal sector. Manufactured production represents 32 percent, services and transport represent 14 percent and 40 percent respectively (Kankwanda et al. 2000).

The linkages between the informal and the formal sector

The contribution of the informal sector to economic development can also be viewed from the interaction between the various operators in the sector and between the informal sector operators and the formal sector operators. According to Herchbach (1989) and Lanjouw (1998) the relationship among the operators in the informal sector and the relationship between the informal sector operators and the formal sector operators has contributed to the growth of the informal sector and to its contribution to economic development and poverty reduction. For instance, the linkages among the informal sector operators (in terms of the supply of labour, technical services, finance, raw materials and equipment) has helped improve the quality of goods and services produced by the operators thus making them compete favourably with what obtained in the formal sector. Their relationship with the formal sector has made them powerful distributors for the goods and services produced by the formal sector enterprises. And the formal sector enterprises are also known to provide inputs and services to informal sector enterprises through sub-contracting.

Grey-Johnson (1993) also reiterates that the linkages with the formal sector are strong, providing it with a wide array of intermediate and final products. Studies have established that there is more demand for informal goods from outside the sector than from within it. For instance, the informal sector operators consume only 5 percent of their products whereas 50 percent is consumed in the formal sector, and the remainder in subsistence agriculture.

Study area and methodology

Study area

The study area covered parts of Ilorin metropolis. Ilorin metropolis is located some 300 kilometres from Lagos and 500 kilometres from Abuja, the Federal Capital of Nigeria, and on Latitude North $8^0 3''$ and Longitude East $4^0 35'$ of the Equator. The city is situated in the transition zone between the forest and savanna regions of Nigeria. Presently, the city is the capital of Kwara State of Nigeria and has an estimated population (from the 1991 census) of about 572, 178 people (Adedibu 1988; NPC 1993).

Methodology
Data Source
Apart from the use of secondary data, a survey aimed at generating primary data on the incidence of poverty and the linkages between the informal sector and the formal sector in Ilorin metropolis was conducted through

the distribution of copies of a questionnaire and through a participatory poverty assessment method.

The questionnaire was based on the World Bank Living Standards Measurement Study (LSMS) and the Federal Office of Statistics' National Integrated Survey of Households (NISH) methods, which among other things produced comprehensive monetary measures of welfare and its distribution, and the description of the patterns of access to and use of social services, e.g. education and health care services. The participatory poverty assessment method is used to obtain information from some of the operators within the informal sector on their perception of the impact of their interaction with the formal sector operators (FOS 1999; Grootaert 1986; Valadez and Bamberger 1994).

A stratified sample method was used to select the respondents. To obtain an unbiased selection of samples, the study area was divided into 22 sample units (Oja oba, Gabari, Pataka, Oloje, Adewole, Taiwo, Gari Alimi, Niger, Tanke, Fate, Basin,Offa Garage, Maraba, Sango, Kunlede, Okelele, Okesuna, Oko Erin, Balogun Fulani, Gaa Akanbi and Baboko) based on proximity, ecological, socio-cultural and economic variations. In accordance with the sample units, the structured questionnaire was distributed to about 600 operators in the informal sector out of which only 480 responded.

The issues raised in the questionnaire include the background of the respondents, i.e. marital status, educational status, employment status, household size, income, total consumption-expenditure and nature of interaction and extend of interaction with the formal sector operators.

In line with most recent work on poverty, the poverty analysis in this study was based on a money metric measure of utility and welfare. For the measure of utility and welfare the total consumption-expenditure of each of the operators was used as a measure of welfare and for determining the poverty line. According to Aigbokhan (1997), Glewwe (1990), and Grootaert and Braithwaite (1998), the total consumption-expenditure is preferred to income because it is usually better reported in household budget surveys. Furthermore, there is an important theoretical consideration that expenditure better reflects long term permanent income and life cycle consumption pattern because it is usually stable and devoid of short-term fluctuations like income. Moreover, if expenditure data are used for welfare analysis they have the compelling advantage that the poverty line can be derived from the data themselves and need not be adopted from other surveys.

In determining the incidence of poverty (from which the influence of the interaction between the informal sector and formal sector is determined) a relative poverty line was set at two-thirds of the mean per-capita consumption-expenditure per adult equivalent[3] as proxy/index for the measure of household welfare in Ilorin Metropolis.

Having established a poverty line at N1288.00, 200 and 280 informal sector operators were identified as not being poor, and being poor, respectively. For the interaction between the informal sector and the formal sector operators, labour, technical, financial, goods and materials and equipment linkages were considered. (See Braun and Loayza 1994; Loayza 1994 and Laujouw 1998). The extent of these linkages is based on whether they are very much, much or not much; with scores such as 3 used for the highest linkage, 2 used for intermediate linkage and 1 used for little linkage assigned to each of the variables. These same scores thus become our dummy variables (dummy 3 for very much linkages, dummy 2 for much linkages; and dummy 1 for not much linkages, see Ijaiya 2002).

In the course of the analysis, a multiple regression analysis was used to test whether the linkages between the informal sector and the formal sector have any significant impact on the incidence of poverty in Ilorin metropolis.

The Model
In specifying the model, emphasis is placed on whether the linkages between the informal sector and the formal sector have any significant impact on the incidence of poverty in Ilorin metropolis.

Having stated this, the model is therefore formulated as

POVi = F (Infor/forlink) --------------------------- (1)

With Infor/forlink[4] = F (FLi, FTi, FFi, FGRi, FEQi) -------------------- (2)

When equation (2) is substituted into equation (1) the equation thus gives a multivariate relationship:

POVi = F ((FLi, FTi, FFi, FGRi, FEQi) -------------------- (3)

With a multiple transformed log-linear[5] relationship as:

$$\ln POVi = \pi_0 + \pi_1 \ln FLi + \pi_2 \ln FTi + \pi_3 \ln FFi + \pi_4 \ln FGRi + \pi_5 \ln FEQi + z ----------------------- (4)$$

Where:

lnPOVi = Log of the poverty level of individual informal sector operator in Ilorin metropolis. Note that the poverty level is proxied by consumption-expenditure (per adult equivalent) of each operator, which is used as an index for household welfare.

lnFLi = Log of the extent of labour linkage between an individual informal sector operator and the formal sector operators in Ilorin metropolis.

lnFTi = Log of the extent of technical linkage between an individual informal sector operator and the formal sector operators in Ilorin metropolis.

lnFFi = Log of the extent of financial linkage between an individual informal sector operator and the formal sector operators in Ilorin metropolis.

lnFGRi = Log of the extent of goods and raw material linkage between an individual informal sector operator and the formal sector operators in Ilorin metropolis.

lnFEQi = Log of the extent of equipment linkage between an individual informal sector operator and the formal sector operators in Ilorin metropolis.

π_0 = Intercept

π_1, π^2.... π^5 = parameter estimates associated with the influence of the linkages between an individual informal sector operator and the formal sector operators on the poverty level in Ilorin metropolis.

z = error term.

To estimate the model, a multiple linear regression analysis was used in order to reflect the explanatory nature of the variables. To verify the validity of the model, two major evaluation criteria were used: (i) the a priori expectation criterion which is based on the signs and magnitude of the co-efficient of the variables under investigation; and (ii) statistical criteria based on statistical theory, in other words referred to as the First Order Least Square Test consisting of R-square (R^2), F- statistic and t-test. The R-square (R^2) is concerned with the overall explanatory power of the regression analysis, the F-statistic is used to test the overall significance of the regression analysis and the t-test is used to test the significant contribution of the independent variables (Oyeniyi 1997).

Drawn from the model, our *a priori* expectations or the expected behaviour of the Log of the independent variables (lnFLi, lnFTi, lnFFi, lnFGRi, lnFEQi) on the dependent variable (lnPOVi) in the model are: lnFLi < 0; lnFTi < 0; lnFFi < 0; lnFGRi < 0; lnEQi < 0; thus indicating that the higher the extent of the interactions/linkages between the informal sector and the formal sector is expected to reduce the rate of poverty in Ilorin metropolis.

Empirical results and discussion

Socio-demographic characteristics of the respondents

The socio- demographic characteristics of the 480 informal sector operators included in the analysis are presented in Table 2.

Table 2. Socio-demographic characteristics of the respondents

Characterisic	Percentage (%)
a. Age of the Respondent	
Below 30 years	12
31–40 years	62
41–50 years	22
Above 50 years	4
b. Marital Status	
Single	20.2
Married	70.8
Divorced/ Separated	-
c. Educational Status	
No Schooling	26
Primary	35
Secondary	19
Tertiary	20
Employment Status	
Informal Sector/ Farming	65
Organised Private Sector/ Informal Sector	14.2
Organised Public Sector/ informal Sector	20.6
Unemployed	-

Source: Authors' Computation.

The survey conducted on the operators in the informal sector in the study area indicates that 62 percent of the respondents fall within the age bracket 31-50 years, and 70.8 percent of them are married, while only 20.2 percent of them are single. About 35 percent of the operators had a minimum of

primary education, while 26 percent of them had no formal education. The survey conducted also indicates that 65 percent of them are engaged in informal sector activities and farming, while 14.2 percent and 20.6 percent are engaged in the organised private and public sectors respectively in addition to operating in the informal sector.

Regression results of the incidence of poverty and the linkages between the informal and formal sector operators in Ilorin metropolis
The results of the regression analysis conducted at the 5 percent level of significance are presented in Table 3.

Table 3: Regression results of the incidence of poverty and the linkages between the informal and formal sector operators in Ilorin metropolis

Explanatory Variables and the Co-efficients or Parameter Estimates of the Variables	
Intercept	4.12
(t)	(126.1)
lnFLi	-0.12
(t)	(-2.20)
lnFTi	-0.10
(t)	(-13.1)
lnFFi	0.51
(t)	(4.16)
lnFGRi	-5.4
(t)	(-1.31)
lnFEQi	-0.21
(t)	(-2.62)
R2	0.71
F	153.2
No. of Observations	280
Dependent Variable	POVi
The *t*-values are in parenthesis.	

A look at the model shows that the model is fairly good as it has an R^2 of 0.71 which in other words, means that 71 percent variation in the dependent variable (ln POVi) is explained by the explanatory variables, (lnFLi, lnFTi, lnFFi, lnFGRi, lnFEQi), while the error term takes care of the remaining 29 percent which are variables in the study that can not be included in the model because of certain qualitative features.

At the 5 percent level of significance, the *F*-statistic shows that the model is useful in determining if the independent variables (lnFLi, lnFTi,

lnFFi, lnFGRi, lnFEQi), have any significant influence on the dependent variable (ln POVi) as the computed F-statistic which is 153.2 is greater than the tabulated F-statistic (5, 280 degree of freedom) valued at 2.21.

In terms of the individual independent variables, the t-test at the 5 percent level of significance shows that all the independent variables with the exception of financial linkage have the expected signs, thus satisfying all our a priori expectations about the other independent variables in the model.

Discussion of the results

As is observed from the results, the linkages between the informal sector and the formal sector, with the exception of financial linkage, have a significant impact on the incidence of poverty in Ilorin metropolis. That the financial linkage provides a contrary result from what we expect is not without some reasons, which include among others the attitude of most formal sector financial institutions like the banks that usually find it difficult to make credit facilities available to the people operating in the informal sector. And even when the facilities are made available the conditions attached to them are usually stringent, thus depriving the people access to funds that could have improved their businesses and living condition.

That the other independent variables, like supply of goods, supply of raw materials, supply of equipment and the provision of technical assistance linkages, fulfilled our a priori expectations is not surprising given the role of the informal sector as a good channel of distribution of most goods provided by the formal sector factories and wholesale enterprises.

The above results also conformed to the observation of Herschbach (1989), where he said that given the linkages between the informal sector and the formal sector, the informal sector enterprises have become powerful distribution channels for the formal sector. They are therefore consciously or unconsciously engaged in advertising and sale promotion for the formal sector organisations thus creating greater awareness and consumption. With this, it will be seen that the informal sector activities are not simply 'what the poor do' but those activities which supply the needs of the poor and improve their living standards.

Drawn from the perception of some of the operators in the informal sector, with the exception of financial linkage, other linkages usually emerged on the bases of the goods/inputs and services produced and consumed by the operators in both sectors. The goods/inputs and services produced in both sectors are to some extent made possible by the interaction that exist between them in terms of the supply of labour, supply of goods and services, the provision of technical and the provision of raw materials and equipment.

With these linkages they are able to expand through lower inputs costs, profit invested back into the sector and technological changes which in the long run have helped in the development of the sector and in the improvement in their living standards in the sector in particular and in Ilorin in general.

Conclusion

An empirical analysis of the influence of the linkages between the informal sector and the formal sector on the incidence of poverty in Ilorin metropolis was undertaken. The findings show that the linkages in terms of the supply of labour, the provision of technical services, the supply of raw materials and equipment, with the exception of the provision of finance, are inversely related to the incidence of poverty in Ilorin metropolis. These results indicate that the level of poverty experienced in the informal sector of Ilorin metropolis can be reduced with the continuous interactions between the informal sector operators and the formal sector operators.

This result notwithstanding, the government and policy makers should take into consideration measures such as capacity building, the reconciling and the converging of both sectors, most especially in the aspect of finance and macroeconomic stability, if the relationships between the informal sector and the formal sector is to be sustained or improved upon for continuous improvement in the living standards of the people in particular and the economic development of Ilorin in general.

Capacity building is a measure that requires the strengthening of the organisational and financial capacities of the informal sector operators in Ilorin so that they can act for themselves in the long run. As their capacity is strengthened their voices will begin to be heard and when their voices are heard there is no way they will be neglected by the government and not be included in the policy making and policy decisions that affect their operations and their lives.

Reconciling and converging the existing relationships between the informal sector and the formal sector is also important. The first step in this direction is the recognition of the informal sector by the government as an important catalyst in the nation's development process rather than a nuisance. When reorganised and encouraged, the informal sector enterprises in Ilorin would have the wherewithal to innovate and build themselves anew to meet the challenges and aspirations of the people working within the sector and the people that patronise them.

In addition to the above, the government should continue to guarantee stable macro-economic policies that would encourage low rates of inflation,

reform the existing credit policies and institutions by making them more flexible and liberal to the informal sector of Ilorin, and invest heavily in infrastructural services, such as water supply and electricity which are the most important infrastructural services required by most informal sector operators in the town. Government should also check and control corruption, most especially at the local government level where most of these operators are found operating.

Notes

1. See Fluitman (1989), Grey-Johnson (1992) and Hart (1973).
2. The World Bank provides $1 and $2 per day per person for core poor and moderate poor respectively. This method is also referred as Purchasing Power Parity (PPP), See World Bank (1993).

3. The formula for calculating consumption-expenditure per adult equivalent is a fraction of EXP and n(0.7)
   where:
   EXP = total household expenditure
   n = household size
   0.7 = exponential formulation representing other adults in a particular household.
4. Infor/forlinki stands for the linkages between an individual Informal sector operator and the formal sector operators.
5. The logarithmic transformation on both side of the equation (i.e. of the dependent variable and the independent variables) called double log-linear specification produces the best functional fit since it is used to avoid giving undue weight to some variables with extremely high scores.

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