

THE INFLUENCE HOUSEHOLD DECISION ON CHILD LABOUR ACTIVITIES: ANALYSIS FROM RURAL AREAS OF NIGER STATE, NIGERIA

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Abstract: In trying to examines the influence of household decision on child labour in Niger state. A cross sectional data set was collected from a sample of 1197 households children between the age of 5 and 14 years in rural areas of Niger State, using a logistic regression model. The findings of this study show that child labour activity, family size and distance to school are more likely to affect child labour participation negatively. Also a biological child of a household head has a greater chance of attending school than a non-biological child, and the higher the education of household head, the less likely a child engage in labour. This study therefore recommends general awareness campaign against child labour and provision of more schooling opportunities for parents and children in rural areas, by both government and non-governmental organisations. In addition, cash transfer programmes targeting the poor households should be implemented so that the need to rely on child labour is reduced and making it possible for children to attend school.

Keywords: household Decision, Child Labour, Rural Areas.

JEL Codes: J08

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INTRODUCTION

Over the years, the proportion of children engaging in economic activities has continued to rise in many Sub-Saharan African countries. According to UNICEF (2007), approximately about 37% of children between the ages of 5 and 14 years old are actively involved in the labour market. Studies have attributes child labour to poverty, which mostly operates at household levels (Wahba, 2001; Grootaert, 1998). But it is quite understood that poverty is not the sole reason why children work, it also relates to cultural aspects of household decision (Delap, 2001). Children are mostly compelled by their household heads, particularly were the household head has the power to ostracize any member of family that violates the basic norms of reciprocity. Many poor families have their children engage in work in order to meet subsistence needs or to provide a diversification of income, yet many rural household heads are ignorant of the fact that education is one of the major driving forces of both social and economic development of most societies, mainly in the developing countries of Africa, Asia, and some Latin America. In developing countries like Nigeria, the educational system is still far from being ready for the challenges of recent socio-economic development, due to some domiciliary contributing factors like household decision culture, household welfare, parent education, nature of family size etc; which leads to low formal educational attendance by children, accompanied with high participation of children in economic pursuit. Some children may drop out of schools before completion, and some may not even attend schools from the beginning because of their parent initiative to diversify future career of their children. These children will have to engage in several apprentices or business works and work even harder in order to earn income for their parents (Basu 1999, Jafarey and Lahiri 2002). Most central argument is that households make children work because the returns of work exceed the returns of schooling in the short run and there is an absence of link between educational qualifications and life opportunities because education is given a low priority in policy terms. In rural areas of Nigeria, millions are losing out on education, due to the fact that parents' demand their contribution to the family income (UNICEF, 2006) which leads to labour exploitation and at the end prevent them from having a better life and a safer future. In pursuance to these concerns, the State government in 2007 adopted an innovative program known as 'Free Education Programme' (FEP) which is designed to discourage child labour practices in rural areas and to encourage school



participation. But yet, the programme results to lack of confidence by the households because the quality of education offered was affected by poor condition of physical facilities complimented with the gains derived from the child labour. These predominantly lead to child labour in the informal sector, particularly in commercial agriculture, cottage industries and mechanical workshops. It is therefore pertinent to empirically investigate the influence household head has on child labour in respect to education in rural areas of Niger State, and as well, to look at household decisions in the context of socioeconomic and cultural forces that influence those decisions. To achieve the objective of this study, the paper is divided into six sections. Apart from this introduction, section 2 deals with theoretical framework. Section 3 reviews the household factors on child labour. Section 4 explores the methodology adopted while section 5 deals with the results and discussions. Finally, section 6 concerns with conclusions and implications.

THEORETICAL FRAMEWORK

The Samuelson (1956) Social Indifference Curve is one of the common theories used in discussing household choice. With a household utility function, the household optimum for given household income Y can be achieved by dividing income among members of the household in such a way as to equalize weighted marginal utilities of income. On this note, household targeted income is divided among children. By this some of the children are educated while others are put to work (Brown *et. al.*, 2001), because they are seen partly as economic investment goods, in that, there is expected return (income) in form of child employment and the provision of financial support for parents. Also Becker (1964) opined that number of children is determined by cost-benefit analysis regarding children in a household, by which a large family size leads to high incidences of child labour. The theory therefore, encourages investment of children in relevant training (employment) because such investment entails increased income in the future for household. While other factors such as insufficient family income, cost of schooling and other constraints may compel the household to keep children away from school, thereby engaging in child employment that gives a higher starting wage on the job (Sakellariou, 2004).

REVIEW OF LITERATURE

This section of the paper deals with the review of some household factors that influence child employment decision. Elijah and Okoruwa (2006) see child labour as any work that is



detriment to a child, either mentally, physically, socially or morally. It is characterized by the denial of the right of children to education and other opportunities. In line with this definition, household choice on child labour is vital to the well being of the society.

The influence of household choice on child labour involves interlinking factors which run from either positive relationship to negative relationship or vice-versa. Khanam (2006) use multinomial logit model to estimate simultaneously the determinants of 'work', 'study', combining both, or doing neither and found that the household decisions leads to child labour through the number of hours supplied which adversely affects the child's schooling. On the contrary, Phoumin and Fukui (2006) used a stratified and two stages sampling techniques on 12,000 households and 600 units and applied a probit model in Cambodia. Findings entail a positive relationship between parent decision and hours of work by children.

For gender of a child, Sakurai (2006) use PROGRESA report from Mexico and the result shows that many female children engage in domestic chores and need to work more than the boys. Contrary, Goulart and Bedi (2006) used a probit model in examining the effect of the number of hours worked by children and the result indicate that male children are more likely to be economic workers and less likely to be involved in domestic work. This means being a male child increases the probability of being an economic worker by 1.2 to 1.8 percentage point while reducing the probability of doing domestic work by 2.5 to 2.7 percentage points. On the gender of household heads Canagarajah and Coulombe (1998) investigated the school participation trends from the Ghana Living Standard Survey (GLSS) of 1987/88, 1988/89 and 1991/92 with more than 3000 households. The probit model result indicates that children from female headed households are 4% less likely to work than those from male headed households. This may be because they are more rational in intrahousehold resources allocation patterns. But the logit regression results by Kurosaki et al (2006) in analyzing the determinant of child labour in rural India revealed that households headed by females are more likely to send their children to work. This shows that children in female -headed households are at disadvantage.

Though the phenomenon of child labour could also be linked to the illiteracy level of the household head, research by (Buchmann, 2000; Grootaert, 1999; Ravallion & Wondon, 2000) finds that parental education is a strong predictor in such a way that educated



parents are less likely to send their children to work. Also studies by Iram *et. al.* (2008) sees household head education as one of the major factors of household characteristics. Their study reveals that the educational level of household head is positively associated with child school enrolment than child. On the contrary, in identifying the impact of household head education on children's education, Chevalier *et al* (2005) uses a British data set and twostage least square estimator, and found that the strong effects of household head education is insignificant when instrumental variables method are used based on 'natural' experiments or policy reforms which change the educational distribution of the households without directly affecting children.

Another prominent factor that influences household decision in child labour market participation is child's relationship with the head of the household. The work of Nkamleu and Kielland (2006) in identifying some certain key factors governing child labour in lvory Coast, findings indicates that a biological child is significantly and positively related to school attendance than a non-biological child. But evidence by Bhalotra and Heady (2000) from Pakistan show that although there are fewer children in the household who are unrelated to head and as such child farm labour is encouraged by the incentive to gain work experience, this is due to land arrangement and inheritance rules. The size of the family may also be an important factor in the labour force participation of children. Becker & Tomes (1976) and Hanushek (1992) found family size to have negative developmental effect, most likely due to the fact that family resources are spread more thinly as the larger the family, the higher the child labour. It may be that larger families increase the likelihood of the household being impoverished, thus large families are more likely to need the additional income from a child who works in the labour market. As such larger family means a higher probability to work. On the other hand, variable such as household income mainly influence household decision making on child labour. Using a country-level correlation between incidences of child labour and GDP per capita, Krueger (1996) established a negative correlation between per capita income and labour force participation by children. According to him, child labour declines as one move from low-income to high-income countries and, hence, economic development leads to decline in child labour. But Cingo, et al. (2000) using surveys from India, Morocco, and Vietnam found that household income significantly affect the incidence of child labour, that is; the relationship between income and the incidence of child labour is noticeably non-



linear. Similarly factor such as distance to school gives more edge towards child participation in labour market than attending school due to some household head decision to reside in interior rural areas. Iram *et. al.* (2008) use logistic regression model and found that the probability of child labour increases as the distance from home to school increases. These findings confirm those of Garba and Sanda (2008). In contrast, Pivovarova (2009) in a similar study finds that although distance to school has been an important determinant of child labour, it is economically and statistically insignificant in the present analysis of Nepal's data set. Most likely this may be due to the satisfactory supply of schools and given that all children live close to school.

METHODOLOGY

This section deals with the method of data collection, variables measurement and method of data analysis.

Data Source

A primary cross-sectional data set was sourced from Niger State through the use of Survey questionnaires which were directed to the household head and the child in the three headquarters of the three Senatorial zones of the state mainly Bida, Chanchaga and Kontagora where household decision have higher influence on child participation in economic activity.

Sample Size and Sampling Techniques

A stratified sampling technique was used to generate a total of 1197 respondents from three senatorial zones of the state, namely Zone A consist of areas such as Agaie, Bida, Edati, Gbako, Katcha, Lapai, Lavun, Mokwa; Zone B have Bosso, Chanchaga, Shiroro, Rafi, Munya, Paikoro, Gurara, Suleja Tafa; and Zone C comprises of Agwara, Borgu, Mashegu, Magama, rijau, Mariga, Kontagora, Wushishi Local Government Areas respectively. The sampling frame of this study consists of households with children between five and 14 years old from a population of 3950249 individuals (NBS, 2008) consisting the whole Local Government Area of the state, using Israel (2009) approach in determining sample size for each zone. A non-probability sample method in form of purposive sampling technique was used to select 399 households from each zone with children between the ages of five and 14. A purposive sampling technique was used in selecting households so that households



with and without history of allowing their children to participate in economic activities could be captured to avoid one-sided data set.

Table 1: Variables Measurements

Variables	Definitions of Variables				
Household decision	A dummy variable taking the value of 1 if the household child				
	works and zero otherwise.				
Child Employment	The study will use child labour proxied by hours of labour				
	supplied per day.				
Gender of Child	A dummy variable taking the value of 1 if the child is male and				
	zero otherwise.				
Gender of Household	A dummy variable taking the value of 1 if the household head is				
Head	male and zero otherwise.				
Household Heads'	A dummy variable taking the value of 1 for Literate (with				
Education Level	secondary education and above) and 0 otherwise.				
Child Relationship	A dummy variable taking the value of 1 as Biological head and 0				
with Head	otherwise.				
Household Welfare	A dummy variable taking the value of 1 as Rich household head				
	earn more than \$2(US Dollar) per day and 0 otherwise.				
Family Size	Family size is measured as the number of family members living				
	in the same home and eating from the same pot.				
Distance to School	This study measured distance to school as distance from home				
	to school premises in kilometres.				

Method of Data Analysis

The data set generated had been analysed using STATA version 9.1 econometric software. To have a clear picture of all the variables, a descriptive analysis was performed at preliminary stage. However, to achieve the main objective of this research, logistic regression model was applied. This model was applied because the dependent variable in this study is a dummy variable, with two categories. Therefore, the statistical model for logistic regression is:

 ${Pr (y = 1/x)} = \beta_0 + \beta X_i$ (1)

Where:

Pr (y = 1/x) = Probability of the outcome

y = Response

X_i = Vector of explanatory variables

 β_o = Intercept of the equation.



 β = Vector of the parameters to be estimated

Model Specification and Estimation

A logistic regression model was used to estimate the parameters of the school attendance model. The empirical model has been specified as follows:

 $P_r (H_i = 1/0)_i = \alpha + \beta_1 Chlb_i + \beta_2 GnCh_i + \beta_3 GnHh_i + \beta_4 HhEdu_i + \beta_5 ChRH_i + \beta_6 HhW_i + \beta_7 FlySz_i + \beta_8 Dis_i + \mu_i \dots$

(2)

Where:

 P_r (H_i = 1/0)_i = Probability of Household decision = the constant parameter of the equation α = the coefficient of the independent variables βs $Chlb_i = child labour$ GdCh_i = gender of a child GdHh_i = gender of household head HhEd_i = parent education ChRH_i = child relationship with head = household welfare HhWi FlySi = family size = distance Dis_i = Error term μ_i

RESULTS AND DISCUSSIONS

Results of this study have been divided into two parts. The descriptive results consist of first part, while the second part contains the logistic regression results.

Descriptive Results

The main aim of this study is to see how households influence the decision of their children in labour participation. The descriptive results for three zones show that households mostly have the opinion or compel their children to work for economic benefits. The result indicated that zone A (277) has the highest frequency mainly due to the nature of various apprenticeships centres around the zone ranging from brass work, metal work, farming, cottage industries etc. while zone B (213) was the lowest as a result of its proximity with the state capital due to high presence of school surrounding the area. On the other hand, for those children that are not working signifies that the households emphasis more on



schooling decision than engaging in labour market. The composition of children is seen in table 3 for the three zones, which indicates that female children dominant the households more than the male. Table 4 shows the results of child labour measured by number of hours spent at work per day. The descriptive results reveal that out of 399 respondents from each zone, 178(44.61%), 134(33.58%) and 144(36.09%) respectively did not engage in any economic activity simply because they came from household that value education or may be too young to partake in economic activities. Those within the supply of 2 to 5 hour are those that both labour and attend school, while the remaining class mostly engage in child labour only through day hawking and apprentice from a minimum of 6 hours to a maximum of 8 hours. On the gender of household head, the results in Table 5 show that out of 399 household head surveyed from each zone, males constitutes the highest household head because the society recognise the role of uncle and brothers in respect of female heads particularly where the real household head is late. The study therefore conclude that majority of the household heads were males.

The results in Table 5 represent household heads' educational qualification, which indicate that out of 399 household heads from each zone, only 192(48%), 170(43%) and 185(46%) respectively had secondary certificate and above, while the remaining household heads have primary certificate and below. The choice of this range is that household heads with at least secondary certificate and above have the capabilities of reading and writing, which may likely have very strong impact on the child's school attendance than those with primary certificate who can neither read nor write accurately. The result indicates that majority of the household heads were illiterates. Table 6 contains information regarding the child relationship with the household head, and it shows that majority of the household heads were their biological heads, this might be due to culture of the region were some foster children depending on the level of relationship are considered to be their own children. While the non-biological children are most domestic servant or distance relations. But table 7 shows household economic status, using US dollar earning per day. However, 254, 307 and 294 household heads respectively were judged poor because their earnings are not up to US\$2 per day mainly because they operate as serfs, while the remaining households are considered to be rich because they earn up to US\$2 per day mostly from inherited



properties like farm, cottage industries. The study thus indicates that majority of the household heads living in the rural areas are poor households.

Households' family size is shown in table 8. Out of 399 household respondents, 148, 152 and 151 families from the zones respectively have at least 4 to 6 numbers of families eating from the same pot majorly from the educated ones. Though majority of the families' posses 7 to 9 members of families, while the remaining families have more than 10 members of family. In this case studies by Rosenzweig and Evanson (1977), Pörtner (2001), and Cignati and Rosato (2000) assumes that the household having more than 7 family members always acts to maximize utility, which is a function of the number of children. Table 9 presents distance to school in kilometres for the 399 household heads surveyed having children between 1 - 3 kilometres daily to school because most of the schools are located in the neighbouring villages.

Regression Results

A number of variables are considered as control variables in logistic regression model in investigating the influence of household decision on child participation in economic activity from the three zones of the state. The regression result indicate that decision of child employment for the three zones incur a significant negative relationship with household heads decision at 1% level of significance, suggesting that child labour is more likely to be influence by the parental decision, which is in line with the objective of this study, because they (children) are seen partly as economic investment goods that can be used in providing financial support to household heads'. For gender of a child is insignificant in zone A and B, but was negatively significant at 10% for zone C because female children are easily submissive to the wills of their parent decision than their male counterparts in terms of employment participation. This study is in line with the findings of Sakurai (2006) which shows that many female children already are prone to domestic chores than their male equivalents.

The coefficient of household head gender has positive sign but not significant for zone A and B, but zone C is negative and still not significant, suggesting that being a male or female household head does not have any influence on child employment in the labour market participation. This is not in conformity with the findings of Canagarajah and Coulombe



(1998) and that of Kurosaki *et al* (2006). But, household heads' educational qualification is positively and significantly related to household choice at 1% level of significance for the whole zones. This implies that the lower the educational level of parents, the higher the chances that a child engages in child labour. This finding confirms that of Iram *et al* (2008) and Garba and Sanda (2008).

In addition, child relationship with household head is positively and significantly related to household decision at 5% in zone A, but insignificant in Zone B and C due to lack of disassociation between the children of household head and other relations. This suggests that being a biological child of a household head increases the odds of engaging in child labour. The result is not in accordance with the findings of Nkamleu & Kielland (2006). Similarly, household welfare is found to be positively and insignificantly related to household decision, suggesting that the rate of household income does not influence their decision because children participation in labour market are mostly common in the region. This finding supports that of Cingo, et al. (2000) where the relationship between income and the incidence of child labour is noticeably non-linear, simply because majority of household members in the rural areas may not be involved in income generating activities that could help raise household income. On the other hand, family size is also among the factors that are expected to influence household choice for children to engage in child labour. But the findings of the study indicate that living in large or small family size does not have any significant impact on household decision making in zone A and C, but negatively significant in zone B at 10% level of significance, which entails the larger the household the more children engage in child labour (Becker & Tomes 1976; Hanushek 1992). While, the estimated coefficient of distance to school is negative and statistically significant for the whole zones; indicating that household children residing in interior areas where schools are present are more likely to attend school while those with less school around are likely to participate in child labour. These findings confirm the findings of Iram et. al. (2008) and Garba & Sanda (2008)

For the R^2 it can be observed that the Pseudo R^2 values are 0.7809, 0.8352 and 0.7973 for zone A, B and C respectively, indicating that approximately 78%, 83% and 79% of the variations in household decision are explained by the explanatory variables. The Likelihood



Ratio (LR) Chi² values are all significant at 1% level of significance, suggesting that the model used is adequate.

CONCLUSIONS AND POLICY IMPLICATIONS

In conclusion, the study of household decision analysis on child labour indicates that child labour are usually influenced by their household heads which is not only due to poverty but as a result of cultural influence were parents have more than one wife couple with household level of education, which tends to increase the chance of child labour activity. However, it is quite difficult to differentiate between the biological child and the non-biological child which tends to increase child labour activities. The findings also indicate that household heads' low educational level and distance to school increase the ability of a child to participate in labour market. This paper therefore recommends general awareness of the problem associated with child labour. Government should also make effort to provide more schools for both adults and children in the rural areas, in order to curb the problem of not only distance to school but also parent literacy level. Also cash transfer programmes targeting the poor households should be implemented so that the need to rely on child labour is reduced and making it possible for children to attend school.

Though, caution may be needed due to the nature of the data, which is obtained by sampling individuals who are available at a given place and time, and are often subject to biases due to the presence of subjectivity in sampling. This limitation may warrant further research by expanding the scope of the study area using additional observations.

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APPENDIX

Descriptive Result

TABLE 2: Household Decision of Respondents

Household Decision	Zone A		Zone B		Zone C		
	Frequency	%	Frequency	%	Frequency	%	
Child Works	277	69.42	213	53.38	239	59.90	
Child Not Working	122	30.58	186	46.62	160	40.10	
Total	399	100	399	100	399	100	



TABLE 4: Gender of a Child

Gender of a Child	Zone A		Zone	В	Zone C	
	Frequency	%	Frequency	%	Frequency	%
Male	195	48.87	159	39.85	166	41.60
Female	204	51.13	240	60.15	233	58.40
Total	399	100	399	100	399	100

Source: Fieldwork (June, 2012)

TABLE 3: Respondents Child Labour Hours

Hours Spent At	Zone A		Zone B	5	Zone C	
Work Per Day	Frequency	%	Frequency	%	Frequency	%
0	178	44.61	134	33.58	144	36.09
2 – 5	77	19.31	96	24.04	74	18.55
6 – 8	144	36.08	169	42.36	181	45.37
Total	399	100	399	100	399	100



TABLE 4: Gender of Household Head

Gender of Household Head	Zone A		Zone E	3	Zone C	
	Frequency	%	Frequency	%	Frequency	%
Male	301	75.44	298	74.69	270	67.67
Female	98	24.56	101	25.31	129	32.33
Total	399	100	399	100	399	100

Source: Fieldwork (June, 2012)

TABLE 5: Household Heads' Educational Level

Household Heads' Educational	Zone A		Zone	В	Zone C	
Qualification	Frequency	%	Frequency	%	Frequency	%
Secondary Cert. and Above	192	48.12	170	42.61	185	46.37
Primary Cert and Below	207	51.88	229	57.39	214	53.63
Total	399	100	399	100	399	100

Source: Fieldwork (June, 2012)

TABLE 6: Child Relationship with Household Head

Child Relationship with	Zone A		Zone E	3	Zone C	
Head of Household	Frequency	%	Frequency	%	Frequency	%
Biological Head	241	60.40	246	61.65	255	63.91
Other Relation	158	39.60	153	38.35	144	36.09
Total	399	100	399	100	399	100

Source: Fieldwork (June, 2012)

TABLE 7: Household Heads Welfare, Measured in Terms of Dollar Earn Per Day

Household Welfare	Zone A		Zone E	3	Zone C			
	Frequency	%	Frequency	%	Frequency	%		
Rich	145	36.34	92	23.06	105	26.32		
Poor	254	63.66	307	76.94	294	73.68		
Total	399	100	399	100	399	100		

Source: Fieldwork (June, 2012)

TABLE 8: Family Size

Family Size	Zone A		Zone	В	Zone C		
	Frequency	%	Frequency	%	Frequency	%	
4 – 6	148	38.10	152	38.10	151	37.84	
7 – 9	166	40.60	182	45.61	162	40.60	
10 and Above	85	21.30	65	16.29	86	21.56	
Total	399	100	399	100	399	100	

Source: Fieldwork (June, 2012)

TABLE 9: Distance to School in Kilometres

Distance to School in	Zone A		Zone E	3	Zone C	
Kilometres	Frequency	%	Frequency	%	Frequency	%
Less than One	92	23.06	63	15.79	72	18.05
1-3	226	56.64	198	49.62	211	52.88
4 – 5	81	20.30	138	34.58	116	29.07
Total	399	100	399	100	399	100



Regression Results

TABLE 10: Logistic Regression Model

Dependent Variable: Household Decision 1 = Child Works, 0 = Child Not Allowed to Work						
Independent variables:	Zone A	Zone B	Zone C			
	Child Labour			-1.2432		
		(-5.51)***	(-2.79)**	(-4.34)***		
	Gender of a Child	-0.8719	0.3130	-1.6613		
		(-1.64)	(0.37)	(-2.36)*		
	Gender Household Head	0.9602	0.3930	-0.7216		
		(1.52)	(0.53)	(-1.20)		
	Household Head	3.4660	4.8383	5.3418		
	Educational Level	(4.06)***	(4.01)***	(5.69)***		
	Child relationship with head	1.5504	-0.0289	0.8601		
		(2.91)***	(-0.05)	(1.62)		
	Household welfare	2.0673	1.1226	2.4338		
		(1.33)	(0.75)	(1.57)		
	Family size	-0.0047	-0.5428	-0.06313		
		(-0.05)	(-2.36)*	(-0.48)		
	Distance to school	-1.0411	-1.2800	-0.7452		
		(-4.84)***	(-3.50)***	(-3.46)***		
Pseudo R ²		0.7809	0.8352	0.7973		
Value of Likelihood Ratio		383.65 ^{***}	460.45***	428.45***		
(LR)						

Significant at 1% (***) 5% (**) and 10% (*)