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Diagnostic Study of Determinants of Income and Working Hours of Child Labour

Abstract

The objective of the study is to analyse the determinants of income and working hours of child labour and their participation in the workforce at an early age in Khurdha district of Odisha. The study is based on 200 primary data collected from child labours in the age group of 5 to 14 years. The regression results reveal that family income has significant negative impact on the working hour of the child labour. Family size is a non-economic factor which affect the working hour of child labour significantly. Children's desire to work has a positive and significant influence on employment of working children. Child labours are from poor and larger families who are forced to join labour force to supplement the family income. The regression coefficients of physical condition are negative and coefficient of all other variables is positive. Age of becoming child labour is a significant variable. Higher the age of child labour, higher is the income of child labour.

Introduction

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Child labour is a universal and burning issue. The whole world is suffering from the burning effect of this problem which needs global attention for its eradication. It is beyond doubt that, child labour has serious social, moral economic and demographic implications. It affects not only the households but also the society and the world at large. Hence, almost all democratic countries have been striving for its elimination or reduction. The problem of child labour is closely related to the socio economic plight of the people. Children in all societies are being used and abused in every activity. In developed countries the problem of child labours in under control as poverty and population explosion in under control. Moreover, economic standard of the people in those countries is very high. Still then, the child workers are also found in the countries. The problem of child labour is serious and alarming in developing and under developed countries. Poverty and overpopulation are the major factors of child labour in these countries. It is an economic index of development for a country (Ahuja, Ram, 1992). It is a black spot on the face value of the so called modern and civilised society.

The study of child labour is important not only for social reasons but also for economic ones. The economy of a country is largely affected by child labour which is a very important component of human capital. The overpopulation of Odisha is 41,947,358 out of which 34,951,234 reside in rural areas and only 6,996,124 live in urban areas. Out of the total child population of 53, 58,810 in the age group of 0-6, male children constitute around 27, 44,552 and female 26, 14,258.Accordig to the latest census it is found that there is an increase in the number of child labourers from 11.28 million in 1991 to 12.66 million in 2001.While an absolute increase of 181 million in the country's population has been recorded during the decade 2001-2011.Poverty is the root cause of child labour which compels them to do hazardous work Chandra, (Navin, 2001). The children of Khurdha district are deprived of every kind of social and economic benefits. They are engaged in industrial workers, household labourers etc. They are the victims of early marriage, forced prostitution, beggary, and helpers in vehicles. Through the Government of Odisha has taken many initiatives to present child labour and violation of child rights, still the achievement is not satisfactory. Child labour is an acute social problem, where the small children are exploited and forced to work. At an early age the children have

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to do household works and later on in industries or companies. The latest report of ILO (industrial labour organisation)on the magnitude of child labour has revealed that around 250 million of children are engaged in one or other kind of works.Nearly,120 million children are working as failure workers and 130 million are part time workers. As for report, in Asia itself 15.7 million children are recognised as child labourers. In Africa about 80million and in latrine America 17.5 million children are workings labourers.

Poverty, illiteracy and social traditions are the main causes of child labour. But poverty is the pivotal among them. The families below poverty line have no other alternatives than to bend their minor children to work for their survival. In poor families almost all family members have to work and especially the children are treated as the additional sources of income. As a result, they are sent to work even in most hazardous factories or organizations. Most shocking in the fact that, a child labour gets less remuneration in comparison to an adult worker, even though both are doing the some work. The employers prefer the child laborers. The industrial revolution cannot reduce the percentage of child laborers as the mortality rate reduced considerably. With the passage of civilization, it is shameful to see the children are working for livelihood and for the economic benefit of their families. It is needless to mention here that the children acquire the skills in the process of working in factories and industries and become an export when they become adults. The tragic thing is that, instead of working with the families. The children are sent to factories, mines and mills to work for the capitalists or owners who are least both and about the wellbeing of these deprived ones. They do not get the opportunities for education and remain as the disadvantaged group for the whole lives. Since, the primary study was conducted in the district of Khurdha; hence it is essential to describe the socio – economic background of the area.

Review of Literature

Dilip R. Khairnar (2017) observed that nearly 78.60% of child labourers are minor in the stage collection of 9-14 ages. The family income of 88% of families of child labour is limited to 1000-2000 rupees per annum. It is also shocking that as well as 67% of minor workers are homeless, 44% of workers belong to diverted families. Only 35% of child labourers are living with their parents. The study also shows that 87%children are in nutritional deficiency 33% of child labourers are survived by taking only one meal a day. The situation of child labourers in worse who belong the family addicted to alcohol and Tabaco. Because of poor economic conditions of the family, 39% children are forced to work as a child labourer. Most of the child labourers are found working in garages, bricks, factories, hotels etc. The study shows the remedies of child labour like force education, creating awareness and successful execution, creating awareness and successful execution of the acts. The working hour of the child labour is more than 12hours, maximum of them are suffered from skin and infection diseases.

Kabita K. Sahu (2013) highlighted the sufferings of child labourers and found that family income plays a pivotal role for increasing rate of child labour. Besides the size of the family is also a determinant which affect the working hour of a child labour. Few children are working simultaneously rather it is the income and size of the family which compel the small children to work for their family income. Permission to supply basic family requirements and awareness in community, participation in decision making in local bodies might lessen the magnitude of child labour in India.

Nidhiya Menon (2015) found close relationship among the minimum wage and the level of child labour. However the minimum wage laws passed by the states help the labour class to improve their economic standards. In rural areas the child labour gets less than the minimum wages especially for boys.

Nengroo Aasif Hussain, Bhat Arshad Hussain, W. Mohammad Yaseen (2011) in this study the working conditions of the child labourers in a specific industry has been taken into consideration. The mentality of an employer to engaged a child labour is examine and the terms and conditions like wage, hours of work ,leave and holidays are analysed. The study also highlights the work environment and its impact and health and behaviour of the child labour. In this paper the nature of supervision, handling of problems and difficulties of the labourers and their job satisfaction has been examined in connection with child labourers. The study also reveals that most of the employers prefer the child labour from lower caste as it is cheaper. Normally the child workers are put to work from 6-8 hours in a day. Their monthly income varies from rupees 500 to 700 and sometimes it is also below 500.

Basu and Van (2010) in the time period (1997-1998) taking all the major variables like poverty, illiteracy, income standard of living, unemployment etc. The children are compiled to work fulfil the basic requirements of the family.

Steven wind (2006) the writer has focused on the health hazards of the labourer's .He found that the owners or employers of a factory an industry are avoiding the risk of hazards associated with the work. The parents of the children are also not aware of this fact. Most of them accepted the risk due to financial requirement. In most of the parent's belief on God to save their children leave them to suffer at the workplace.

Karunanithi's (1990) a study was conducted among the beedi rolling children in the town of Vijayawada, Andhra Pradesh. The parents send their children aged about eight years to work in beedi factories. It is their financial compulsion due to which about 52% of children are school dropouts. Most of the children are not interested in studies. Three employer compels a child labour to complete 500 beedi within 10 to 12 hours of work. Both the employer and the contracts exploit the children economically and socially.

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Objectives of the Study and Methodology

The objective of the study is to analyse the working condition, income and determinants of child labour in Khurda district of Odisha on the basis of primary data. Child labours are from poor and larger families who are forced to join labour force to supplement the family income. The study in this paper is based on primary data collected from Khurda district of Odisha. The relevant information are collected from 200 child labourers, their 50 parents and 50 employers with the help of a structured questionnaire designed for the purpose. The information affecting to the socio-economic conditions, income, employment position etc. have been collected from the child labour.

The sample surveys by using an interview schedule was carried out for the collection of primary data. The data with respect to interest of education, literacy status, illiteracy reason or cause of leaving school, nature of activity, daily working hours, payment pattern, daily contribution, employee behaviour, father monthly income and education qualification, working condition, family size etc. has been collected in sample area. The study surveyed the four categories of working children of Khurdha, Odisha. The 30 dissimilar categories of child working in different place were interviewed personally.

The child labourers are selected from different sahi of Bhubaneswar in Khurdha District since there are many basti (Slums) in Chandrasekharpur area, the child labourers are selected using simple random sampling method. First a list of child labourers living in these slums is prepared and 50 % of child labourers of each slums are selected using simple random sampling method through lottery method. The primary data are collected in well-structured printed questionnaire. A pilot study was conducted to test the questionnaire and data are conducted from 15 samples and questionnaire was found to be correct. The primary data are collected in morning and evening time from 200 child labourers as stated below in table-1.

Table-1 Selection of Sample Child Labourers in Bhubaneswar

SI No	Location	Sample size
1	Nilamadhab Slum(Basti)	30
2	Harekrushna Basti	30
3	Hat Basti	30
4	Munda Sahi	40
5	Salia Sahi	40
6	Sitanath Basti	30

Determinants of Working Hour

The determinants of working hours of child labour have been identified and estimated with the help of a linear multiple regression model. In the regression model, the working hour of child labour is the dependant variable and the independent variables are family income, family size, education of child labour, education of father and education of mother. The regression model is as follows:-

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + U$$

Where Y = Working hour of child labour

X_1 = Family income (Monthly income in rupees)

X_2 = Family size (in number)

X_3 = Education of child labour (in terms of schooling years)

X_4 = Education of father of child labour (in terms of schooling years)

X_5 = Education of mother of child labour (in terms of schooling years)

α = Intercept term

β_1, β_2, β_3, β_4, and β_5 are co-efficient of X_1, X_2, X_3, X_4 and X_5 respectively.

U = Error term

The working hours of child labour is taken as dependent variable and five independent variables are considered for the step wise regression to find out the significance of determinant variables. The results are given below in table-2

Table-2 Step-wise Regression results

SN	Constant	Family Income (X_1)	Family Size (X_2)	Education of the children (X_3)	Education of father (X_4)	Education of mother (X_5)	Age of Child Labour	R^2	F Value
1	8.700 (24.510)	0.000 (-0.984)						0.005	0.968
2	8.396 (12.595)	0.000 (-1.004)	0.049 (0.539)					0.006	0.628
3	7.146 (12.260)	0.000 (-0.789)	0.054 (-0.703)	0.468* (8.826)				0.289	26.546*
4	6.966 (11.359)	0.000 (-0931)	0.057 (0.738)	0.477* (8.858)	0.078 (0.942)			0.292	20.120*
5	6.933 (11.248)	0.000 (-0.932)	0.054 (0.708)	0.482* (8.843)	0.046 (0.479)	0.123 (0.647)		0.294	16.131*
6	4.03 (5.099)	0.000 (-1.593)	0.096 (1.327)	0.373* (6.807)	0.057 (0.628)	0.064 0.356)	0.291* (5.358)	0.39	20.15*

Source-Computed by the Author

Figures in the parentheses indicate 't' values.

* Significant at 1 percent level

** Significant at 5 percent level

***Significant at 10 percent level

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The calculated value of the test statistic's t is of X_1 is (-0.984) which implies that family income has no significant impact on the working hour of the child labour. Since R^2 is 0.005, it implies that 0.5 per cent variation in Y has been explained by the repressor, i.e. family income. In the second regression equation, the computed value of 't' of X_1 is (-1.004) which means working hour of child labour is significantly influenced by family income. Family size is also affecting the working hour of child labour significantly as the estimated slope coefficient is 0.049. Child education has significant impact on the working hour of child labour. The estimated slope coefficient explains that for one unit increase in education of child labour, working hour decreases by 0.468 hour. It is also found from fourth regression model that that family income has significantly influenced the working hour of child labour, this is very much evident from the corresponding 't' value, i.e. (-0931)of X_1 (significant at 1 percent level of significance). The estimated slope coefficient indicates that for one unit increase in family income, working hour of child labour decrease by 0.000 hour. On the other hand, family size has also significant impact on the working hour of child labour.

The estimated slope coefficient of family size shows that for one unit increase in family size, working hour of child labour decreases by 0.057 hour. With regard to child's education it is found that this variable has no significant impact on the working hour of child labour. In regression equation five, the computed value of the test statistic't' of X_1 (-0.932) is greater than the tabulated value of't' (2.576) at 1 percent level of significance. Hence, family income has significant impact on the working hour of child labour. From the estimated slope coefficient it is found that one unit increase in family income decreases the working hour of child labour by 0.000 hour. In case of the second explanatory variable (family size), it is found that family size has also significant impact on the working hour of child labour and X_2 is significant at 5 percent level of significance. The slope coefficient X_2 shows that for one unit increase in family size, the working hour of child labour increases by 0.054 hour. Similarly, the impact of child's education on the working hour of child labour is also significant and X_3 is significant at 1 percent level of significance. The slope coefficient indicates that one unit increase in child's education decreases the working hour of child labour by 0.482 hour. It is found from't' value of X_4 (significant at 10 percent level of significance) that the impact of father's education on the working hour of child labour is significant. The estimated slope coefficient indicates that there would be 0.046 hour decrease in the working hour of child labour due to one unit increase in father's education. So the occurrence of child labour is not only determined by the poor economic condition of the household but also by a set of factors like family size, education of the child and education of the parents" is rejected. So we can clearly state that the child labour is only caused by the poor economic condition of the household and not by the other factors such as family size, education of the child and education of the parents.

Determinants of Income of Child Labour

Another multiple regression model is used in order to know the relative significance of the factors determining the child labour income. The income of child labour is determined by various factors, i.e., working hour of child labour, child desire to work and education of child labour. In order to identify the significant determinants of child labour income, this regression model has been fitted by taking into consideration the most possible determinants. For the purpose of regression, three variables have been taken into consideration. The independent variables used in the regression model are working hour of child labour, child desire to work and education of child labour. The dependent variable is the monthly income of child labour. The model is as follows

$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + u$

Where,

Y = Child labour income (annual income in rupees)

X_1 = Working hour of child labour

X_2 = Age of Child labour

X_3 = Education of child labour (in terms of schooling years)

α = Intercept term

β1, β2 and β3 are co-efficient of X_1, X_2, and X_3, respectively.

u = Error term

The regression analysis of this has been presented in the following table-3

Table-3 Regression results of income of child labour

Constant	Working hours of child labour (X_1)	Age of Child labour (X_2)	Education of Child labour	R^2	F Value
2313.709 (5.110)	-70.347 (-1.395)	79.070* (1.957)	-17.769 (-0.422)	0.54	1.609

Source- Computer by the Author 2018
* Significant at 10 % Level

From the above regression analysis it is found that the calculated value of't' of X_1 is (-1.395) which is greater than the tabulated value of't' at 1 percent level of significance. This indicates that the impact of hours of work on income of the child labour is significant. Child desire to work also significantly affects the income of child labour as the coefficient is significant. It is found that child education has negative impact on the income of child labour. With one unit increase in education of child labour there is 17.769 rupees decrease in child labour's income. Further it is found that 54.0 per cent variation in Y has been explained by the repressors. The results show that all the three variables namely, hours of work of the child labour, child desire to work and education of the child labour are the major determinants of child labour income per annum. The estimated value of the regression coefficient of children's desire to work has

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a positive and significant influence on employment of working children. So it is observed that higher the desire to work higher will be the engagement and working hours and higher will be the child labour income and vice versa.

Variation in Monthly Income of Child Labour

The monthly income of child labour is an important aspect of analysis. Descriptive statistics of monthly income is given in table -4.

Table-4 Descriptive statistics of Monthly income of child labour

Statistical Measure	Monthly Income (Rs)
Mean	1172.25
Std. Deviation	871.19
Range	5900
Minimum	100
Maximum	6000
No. of Sample Child Labour	200

Source- Authors computation using SPSS 2018

The primary study reveals that the highest monthly income is Rs 6000/- and lowest income is Rs 100/-along with food. The average monthly income of 200 sample child labour is Rs 1172.25 which is extremely low. There is wide variation in monthly income of child labour as standard deviation is 871.19.

Conclusion

The prevalence of child labour is more or less seen in all periods of time, it varies in nature and dimension depending on the existing socioeconomic structure of the society. Children are found working under hazardous conditions such as mining, auto repair, battery recharging, saw milling, welding, and rickshaw pulling, garments manufacturing and working with dangerous machinery. It is clear from this study that child labour has higher probability to create negative impacts on future life. Since child worker does not get opportunity to get better education, they cannot get better job opportunities in future life. Consequently, their income remains low which only ensure low standard of living. So, poverty and illiteracy are the main causes for leading child labour.

Consequently, the vulnerable socio-economic status at adulthood is caused by hazardous child labour. Children are the blooming flowers of the garden of a society and valuable asset of a nation. They constitute a hidden treasure of potential development of a growing nation, childhood has been considered as a most important period of life. During this period moulding and shaping of the life take place and the behaviour, conduct and sentiments are developed. Paradoxically, it is unfortunate to say that tragically most of the child life is lost due to child work. Child labour is mainly necessitated by economic compulsions of the parents in many cases of the children. The main reason which give rise to child labour are widespread of absolute poverty, unemployment and underemployment. The issue of child labour is an interesting research study. The primary survey of 200 child labourers, 50 parents and 50 employers has revealed many interesting results. The average monthly income of parents of child labour is only Rs 1997/- which is extremely low. It implies that poverty is the main reason of child labour. The maximum monthly income of parents is also Rs 4000/- only. Out of 200 child labourers, 128 agree that parents are illiteracy during survey 40 percent parents revealed that they know that child labour is a crime. There are 66 percent child labourers who receive service benefits where as 32 percent receive bonus, 58 percent receive provident fund in organised sector. The regression coefficients of physical condition are negative and coefficient of all other variables is positive. Age of becoming child labour is a significant variable. Higher the age of child labour, higher is the income of child labour. There is urgent need to address the problems of child labour in study area.

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