

"Determinants of Child Labor: A Case Study of Children Working at Automobiles Workshop at Tehkal Payan of Peshawar City, Khyber Pakhtunkhwa, Pakistan"

A dissertation submitted in partial satisfaction of the requirements for the degree Master of Philosophy in Development Studies

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<u>CERTIFICATE</u>

This is to certify that this thesis entitled: "Determinants of Child Labor: A Case Study of Children Working at Automobiles Workshop at Tehkal Payan of Peshawar City, Khyber Pakhtunkhwa, Pakistan" submitted by Mubasher Rehman Khattak is accepted in its present form by the Department of Development Studies, Pakistan Institute of Development Economics (PIDE), Islamabad as satisfying the requirements for partial fulfillment of the degree in Master of Philosophy in Development Studies.

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Dated:.

MUBASHER REHMAN KHATTAK

DEDICATION

This thesis is dedicated to my beloved father

Saif-ur Rehman Khattak

&

Loving Morakaye

Who gave meaning to my life

ABSTRACT

Child labor is universal problem throughout the world and is worth to investigate .Child labor is harmful occupations or work activities by all children below 18 in the labor market or their own household; all children undertaking work in the labor market or household interfering with their primary education; all children under 15 in full time employment; and all children under 13 in part time. The purpose of the study was to investigate determinants of child labor working at automobiles workshop at Tehkal Payan of Peshawar City, Khyber Pakhtunkhwa, Pakistan, and the main objectives were to study the child characteristics, to explore the parental factors and to examine the household characteristics that forced child in to labor. The population of the study constituted 1500 children working in 300 automobiles workshop. 150 automobiles were randomly selected and 300 children (two from each automobile) were the sample size of the study. In the study descriptive analysis and regression technique were used for the analysis of variables. The studies found that majority of the children working in automobile were in the ages of 11-14 years while most of the children had only primary education exposure. Moreover, children belonged to large families had the greatest proportion in total population along with most of the children in automobile workshop were the eldest in birth order. Majority of the children had alive father who were wage earners and unemployed. Uneducated household head were in higher proportion that pushed their children for work in automobile workshop. The working environment was generally not satisfactory after statistical analysis it was concluded that Quality of schooling should be improved. Effective coordination between government and various NGO's should be carried and national child policy adopted by government has to be implemented.

Key Words: Automobiles Workshop, Child, Child labor, Case Study

CHAPTER 1

INTRODUCTION

Child labor is universal problem throughout the world and is worth to investigate (Abdul Hai et al, 2010). There is almost universal agreement regarding child labor though it is being a curse but in reality more children are forced to work. Child labor is an important issue among professional, academic and media (Ray, 2000). Children have always contributed to economy in one form or another by means of participating in different activities .The extent of children's participation leads to child labor. From an early age children greatly contribute in earning income at the cost of their own livelihood and hence are deprived of basic facilities like opportunities for education, leisure, recreational and intellectual development (Panigrahi, 2003).

The International Labor Organization (ILO) Convention, defined child labor as harmful occupations or work activities in all children below 18 in the labor market or their own household; all children undertaking work in the labor market or household interfering with their primary education; all children under 15 in full time employment; and all children under 13 in part time work. Many professionals of child labor try to develop formal definitions of the term. Defining the term 'child' could be compound by many factors like racial and climatic factors related to physical and mental maturity, social norms and practices, socio-economic conditions, educational system and the legal context of the country. It is the matter of fact that in different society's children level of maturity varies. The economic activity in which the child is involved has either positive or negative impacts depending upon the age, type of activity, physical and environmental condition of work. It is important to note that in certain socio-cultural

contexts, children mature quicker than in some others. Moreover, the negative/positive impacts of children's involvement in economic activities are likely to depend on the nature of the activity, age of the child as well as on the extent and conditions of involvement in work (Herath and Sharma, 2007).

There is common perception that if a child is engaged in economic activity is considered as child labor whereas if child is not being paid comes under child work (Khan, 2003). But in contrary according to (ILO, 2002) if child is economically active without any physical and mental stress is child work while violation of international labor laws refers to child labor. Asia is economically active region of the world and it has the greatest incidence of child labor (Ali, 2010). Asia and Africa together are responsible for producing ninety percent of total child labor force. Around sixty percent of the children of the world are working under unfavorable conditions. In India forty four million children are working while twelve million children are working in Nigeria (Rena, 2009).

Pakistan has the largest concentration of child labor force. The main reasons behind the fact are weak socio-economic and political instability of the country. Majority children have to work before going to school. Thousands of the children have to quit education at middle level to meet the basic necessities of life (Mehmood et al, 2005). According to 1973 constitution of Pakistan "no child under the age of 14 shall be employed in hazardous jobs (Ali, 2010). Federal Bureau of Statistics conducted national survey of child labor with collaboration of ILO in 1996 and find that 40 million children age 5 to 14 were economically active among which 73 percent were boys while 27% were girls. Child labor distribution in provinces revealed that 59 percent of children were employed in Punjab, 9 percent in Sindh, 31 percent in Khyber Pakhtunkhwa and less than 1 percent in Baluchistan. According to the survey majority of children were

working in agriculture sector. Around 33 percent of children never attended school, 46 percent of children had to work more than 35 hours per week. Thus the report concluded that low socio-economic background; poor education system, uneducated household heads and large family size were pushing children into labor (Zarif and Nisa, 2013).

Tehkal Payan is the commercial area of Peshawar. Children working in automobile revealed, when inquired that majority have poor economic status. Children usually have large family size and unable to fulfill their basic needs. Furthermore concept of children independency and proficiency in various skills considered better than spending money on education brings children in labor market. Working in automobile workshop at Tehkal area is considered as the best option to support their house hold. Thus the researcher considered intense need to highlight the triggering causes of child labor Tehkal Payan at Peshawar division.

1.1 Statement of the Problem

Pakistan being the member of International Labor Organization (ILO) has the obligation to eradicate child labor. The study intends to explore childs' parental and household characteristics of working condition in automobile workshop and also to identify the determinants that are responsible for bringing children in to labor.

1.2 Significance of the Study

The future of every nation is dependent on children skills and their capabilities. The study is more related to the explanation of present child labor in Tehkal area. It also focuses on the reasons which bring children in to labor. The findings of the study will be helpful for the local government to understand the worst condition of child labor in the area. There is intense need to reconsider the labor laws. The suggestions if

implemented properly will help in minimization of the consequences of worst form of Child labor. The study is limited to the Tehkal area of Peshawar which is known for business hub.

1.3 Research Questions

- i. What are the roles of the parental factors that contribute in pushing the child in to labor?
- ii. What are the roles of the child level factors that contribute in pushing the child in to labor?
- iii. What are the roles of the household level factors that contribute in pushing the child in to labor?
- iv. Does the working environment of the child health friendly?

1.4 Objectives of the study

- 1. To study the child characteristics of child working in automobile workshop.
- 2. To explore the parental factors leading to child labor in study area.
- 3. To examine the household characteristics that forced child to go to work.

1.5 Structure of the study

First section is the introduction of the study. It includes objectives, research questions and significance of the study. The next section takes some insights from the existing literature and will identify the gaps. By following the literature review the proposed study is aimed to formulate the theoretical and empirical model for the study in chapter 3. In chapter 4 the study provides the main results of the study and the underlying discussion. The study discussion, recommendations and policy out comes are provided in last chapter of the study.

REVIEW OF LITERATURE

2.1 Introduction

Before proceeding it is necessary to have a broad idea of the current development in the theoretical and empirical literature on determinants of child working in automobile workshops. For this purpose there is a need to research the literature to identify the gaps and to make clear the mechanism to fill the gaps. There exists a large body of theoretical and empirical literature to examine and identify the determinants of child labor. This chapter will review the literature relevant to the objectives of the study.

Working children have many problems and serious threats related to their work. There are greater chance of morbidity, injury, and hazard risks faced by children in different occupations and industries. Working environment effects just not health of children but it has harmful collision on their personality development. Thus emphasizes that children who start work at a young age will be exposed to environmental hazards in the work place for longer, perhaps at a time when the effects of these hazards on development are more substantive (Graitcer & Lerer ,1998)

The International Labor Organization (ILO) Convention, defined child labor as harmful occupations or work activities in all children below 18 in the labor market or their own household; all children undertaking work in the labor market or household interfering with their primary education; all children under 15 in full time employment; and all children under 13 in part time work.

2.2 CHILD LABOUR: A GLOBAL PERSPECTIVE

Child labor has been acknowledged as a serious and challenging issue in the civilized societies around the globe. Its continued existence remains a source of concern for all segments of human society. (Siddiqi and Patrinos, 1995).

Several studies have been conducted around the world to highlight the causes of child labour.

Mukerjy and daas (2008) emphasized the fact that in developing countries child labour and school dropout are issues, poverty being key factor that forces children to work for family for family economic stability.

Dash (2013) indicated multiple factors other than poverty like parental ignorance, illiteracy, migration, death, alcoholism, unemployment are contributing factors indeed but also children own lack of interest in studies, lack of aspiration became leading reasons for children to be in labor.

Fronstin et al., (2001) argued that parental disruption is also one of the reasons and had a negative and long term effect on child labor market performance as child is forced to leave school because of reduced availability of parental income.

Remington (199) has concluded that in recent years the international competition and cheap goods have contributed in child labor exploitation and the World Bank giving financial assistance to different industrial projects in which unfortunately children are the main labor force for the industrialist.

Panigrahi (2003) conducted a study in rural Orissa (India) where agriculture is the traditional occupation of the locale and founded that lack of interest in education, unemployment, poor economic status, illiteracy, ignorance and large family size are the contributing factor of child labor.

Devi and Roy (2008) conducted a study to determine child labor among school children in urban and rural areas of Pondicherry and founded that 15 percent of children were engaged in income generation because of the poor economic condition.

Emerson and Knabb (2006) had concluded in study that not only the poverty is responsible but child labor is considered as family occupation and transmitted through generation. He feared that by introducing anti child labor policies and compulsory education laws can increase the poverty and income inequality within a society making the condition more worst and eventually can appreciate child labor.

Dash (2013) determined the contributing factor of child labor at Delhi. The study was descriptive in nature in which 120 child labors and 40 parents were selected for interview to know the multiple factors responsible for pushing children in to labor. It was found that 62 percent children were working because of parental compulsion on them as well as they had to support the family bearing poor economic background.

Ahmad (2012), conducted a descriptive cum analytical study at Aligarh city to depict the socio-economic problems of working children by taking 360 sample sizes. The study revealed that most of the parents were either unemployed or had no permanent occupation. It was found that 25 percent of children were in labor because of poverty, 17 percent of children were working because of the parental pressure, 15 percent were uninterested in attending schools, 11 percent had to support family and 6 percent were only source of family income.

Grootaert and Patrinos, (2002) emphasized on the child labor determinants by conducting a comparative study of four cities that is Coted'lovire, Colombia, Bolivia and Philippines. Report mainly focused on contributing factors of child labor that is family size, parental education and employment status and concludes that parental unemployment pressurized the child to go for work rather than school as well as Parental education directly influence child labor rate. Most of the educated parents were not in opinion to send their children to work. The study suggested that government should support home business and parental enrollment incentives should be provided to reduce child labor need. Ampomah, (2012) conducted study to analyze the child labor condition in areas of Abokobi and Madina east districts of Ghana which interviewed 50 children, 50 parents and three government officials. The study examined the working condition of children, programmers and policies as well as problems faced by these programs and primarily conclude that 60 percent of respondents regarded poverty as the main cause. In addition, majority of parents were unemployed, 70 percent were involved in petty training, 78.7 percent were getting income from low scale business and 41.9 percent of parents were uneducated. Thus the children having low socio-economic status were forced by parents to provide financial assistance.

Chhetri (2011) led a study to analyze the child labor practices in Bhutan and examine that socio-economic and cultural aspects are considered by examining findings of domestic child labor. Working children were interviewed and it was found that parents were having low income. The parents were least interested in sending their child to schools because they did not considered education being important for their children neither they could afford school.

Dixit (2004) contributed the major role played by NGO in reducing child labor in India. He discussed four case studies of NGO's who had high level achievement in preventing child labor in India. These NGO's maintained the quality in several education programs. It provided support to family, raised awareness and reduced dropout rate. It was found that even though parents were relieved by providing free text books and other requirements.

2.3 CHILD LABOUR IN PAKISTAN

In Pakistan children aged between 5–14 years are above 40 million. According to recent survey of Federal Bureau of Statistics funded by ILO's IPEC (International Program on the Elimination of Child Labour), around 3.8 million children in age group of 5–14 years are working; fifty percent of these economically active children are in age group of 5 to 9 years. Even out of these 3.8 million economically active children, 2.7 million were claimed to be working in the agriculture sector. Two million and four hundred thousand (73%) of them are said to be boys (Ali et al, 2004)

There exists a plethora of literature in Pakistan that examines reasons responsible for child into labour such as poverty, school drop out and unemployment among others. Schools unavailability and poor quality of education in the specific area make the students uninterested in gaining education thus making them ready to work in market. The National Sample Survey (NSS) revealed dropout statistics that 25% children were simply not interested in going to schools.

Siddiqi (2013) conducted a case study in Lahore Pakistan where 40 percent of population were living below poverty line and founded that large family size was one of the contributing factor. Moreover demand of cheap child labor in our society for profit maximization drag the child in to labor.

Ali (2010) conducted a study in district Swabi and discussed economic factors which were responsible for child labor. The study was based on a sample of 225 respondents who were interviewed to examine the determinants of child labor in the locale among which 37 percent working children reported that their parents were labors having no good job, 70 percent of children confessed that the family income was too low that they had to work for family support. It was also found that half of the respondent's parents were having income less than PKR 4,000. It can be inferred from the data that parents having low income sent their children to labor. The same result was also determined by Khan (2007). Researcher conducted study in Bannu city of KPK Pakistan and maintain that 20 percent of the children were taken as sample and it was pointed that household income was inversely related to prevalence of child labor. It was also examined that majority of the parents were illiterate and had income lower than PKR 3500. Thus it is evident from the study that children had to take responsibility by contributing in family income.

Muhammad et al (2010), investigated different facets around the problem of debt bondage at brick kilns in the Badhaber, a peripheral area of Peshawar. The study mainly focused on the nature of work, socio-economic causes and effects of bonded labor. The major findings revealed that work at brick kilns was hard, detrimental to human health and duration was more than internationally defined limit. Major causes encompassed illiteracy, faction and feuds in the past and low economic position.

A cross sectional study conducted by Zeb et al (2015), reflected the fact that our society prevails economic injustice, there is no care provided to children and that child labour laws are not being implemented anywhere. Most of the children were unaware of the importance of education and had wished to get education but the financial statuses of their families prevented them from doing so.

Rahman and Khanam (2012) found inverse relationship between parents' education and child labor prevalence. Most of the illiterate parents were considering education as wastage of time and money. Moreover parental decision contributed largely in child labor. Children lack of interest in studies became the push factor of child labor. According to researcher family financial status is highly dependent upon the children work in market. By citing (BBS, 2003) report it was revealed that 68.9 percent parents were having the opinion that children had to work to improve the living standard of family where as 7.9 percent in rural areas were completely dependent upon their children wages

According to (Siddiqi and Patrinos, 1995) child labor is a problem faced by developing countries throughout the world. Parental decision plays vital role in promoting child labor and children ability to work in market is valuable for parents. In developing countries children contribute more in reducing the financial burden as compared to the children of developed nations. Author cited the arguments of Lindered (1976) that in developing countries children work because they contribute in their family earnings.

Khalid and Shahnaz (2004) has criticized that present child labor laws of Pakistan are not productive to reduce the problems of child labor. The only way to reduce child labor is to have easy access to education and non-formal education programs can be created to improve children different vocational skills. Moreover parents should be given financial support by means of employment opportunities. Adult literacy programs should be introduced to fight with child labor issue.

Ahmed (2012) put her efforts to determine school enrollment being a substitute of child labor. The matter of fact that parents select the option of schooling and work choice on the basis of utility. The provision of free text books and facilities at primary level can increase the school enrollment. By providing different incentives at the early stage can reduce child labor. It was clearly suggested that government should appreciate programs such as Punjab education sector reform program by providing free text books from KG to Metric. Researcher concluded that education can improve the skills and opportunities of masses by means of governmental incentive program.

From the aforementioned empirical literature review that factors like socio-economic, cultural aspects, family size, and parental education among others has diverse and mixed effect on child labor. Almost, all of the studies conducted in Pakistan so far examine the either economic factors of child labor or socio-political factors. This study intends to examine the three characteristics of child labor including Parental, Household and Child own characteristics. Furthermore, the study chooses the area which is more vulnerable to child labor. Therefore this study is an extension of the available literature in the direction of examining the three characteristics of child labor.

2.4 Key terms

i. Child

According to the UN Convention on the Right of the Child 1989, a person below 18 years of age is a 'child' (Herath and Sharma, 2007).

ii. Child labor

Ali (2010), defined child labor not by the activity but by the effect this activity has on the child. Moreover, child labor is the employment of children working between 7 to 18 years on wages or when used for inappropriate or dangerous jobs.

iii. Automobiles Workshop

According to Keyemuddin and Kayum (2013) automobiles workshop is a type of small industry for repairing and maintaining vehicles. Khan (2003) categorized workshops into two type's i.e. heavy vehicle workshops and light vehicle workshops. Trucks buses and tractors are repaired at heavy vehicle workshops while rickshaws, cars and motorcycles are maintained and repaired at light vehicle workshops. In this study the researcher will investigate the determinants of child labor working in light automobiles workshops.

MATERIAL AND METHODS

3.1 Introduction

The proposed study in order to achieve objective of the study and to conclude about the formulated hypothesis the following research methodology will be carried out. The study is descriptive cum analytical. The collection of primary data is collected in the form of semi structured interview. Specifically, the study is analytically structured. Present data collection and sampling technique along with the method of research are utilized in the data collection process.

3.2 Theoretical Framework

Child labour has many determinants ranging at first hand from demographic variables to working condition along with parental and socio-economic determinant. Literature demonstrates that child labour problem is mostly inherited i.e. intergenerational. The under-mentioned determinants of child labour are structured in figure 1. Specifically the study includes the common variables which are either directly or indirectly associated with child labour consist of age, level of education, family size, birth order, work experience, physical punishment, basic facilities (food, shelter, water etc.) midday break, injuries during work, availability of protective tools, household head occupation, father income, father residence, drug addicted, livelihood, earning family members, family income per month, percentage contribution to family income, reason of living school, and reason for work.

The general perception that child labour is embedded in poverty need not be fit in every context and cultures rather could be viewed as a complex phenomenon which required simplification. The association between the underlying bases of child labour and the surrounding exploitation is not that much simple as the literature demonstrate. An additional effort is needed to determine the root cause of the issue so that to carry out the specific measures for the generalization of the issue mean ,the different measures regarding different fundamental causes are avoided. The study reproduces the different theories of child labour from Boyden et al., (1998).

The first theory primarily argues that children in less developed countries are often for the support of their families because of the weak financial circumstances of the families. Children are often push to work at early ages either by commanding them or by family request where each children react according to their own understanding and circumstances. Children considering themselves as being part of family member and decide to work for the sake of financial support to their families, specifically when their families need them the most. Boyden et al., (1998) mentioned in their book by conducting a case studies in Ethiopia and Brazil and their finding suggest that children feel proud and strong while contributing to their family income. According to the theory, children do not want to be out of work by enforcing a minimum age limit for work because they consider it as their right to support their families in hard days when there is no alternative source for financing of their needs.

The second theory carries the idea that children choose child labour because of selfconsideration. There also exist an argument that children belongs to middle class want to engage in part time work though children are not obliged to work because of weak family financial position. According to ILO, work has positive impact on children development if non-exploitive and hence develops the economy and society. Moreover, the non-exploitive work enables the children mature; independent which help them to be competent and well-off adult. Children choose to work because they want to earn their own pocket money instead to be dependent upon parents together with they want to get out of poverty trap by finding better earning opportunities.

Thirdly, the child labour results because of indecisiveness of parents about their children i.e. whether to send them to school or for work. Parents in under developed countries often unaware about the greater likely outcome of education and hence in ignorance choose work for their children. Finally, the common determinant of child labour widely discussed in literature is the family inherited poverty. This theory predicts that if economic conditions are better of the families they would choose schooling for their children rather than to send them for work. ILO estimates indicates that child labour contribute about 20 percent to family expenditures on basic necessities. There also exists contrasting argument that poverty is the sole determinant of child labour because in advanced economies children are more prone to work than children in developing countries because they have more work opportunities and are free from ethnic and racial discrimination. Furthermore, poverty may itself limit the work opportunity because the poor children did not bear the travel cost. General input prices are on rise and therefore for producer the work from children is the inexpensive option.



Figure 3.1: Conceptual Framework of Determinants of Child Labour

3.3 Study Area and Sample Size

Tehkal is located in the center of Peshawar near university of Peshawar. It is one of the main commercial areas of Peshawar having government and private institutions, hospitals and shopping malls. It is one of the areas of Peshawar having automobiles workshop located on the main roads as well as in the streets. It has the reputation of providing good services to the customers thus attract large proportion of population. Children having low socio-economic background prefer to work in automobile workshop in order to learn the different skills at automobile workshop for income generation. It also stabilizes the future employment security. The study mainly focuses on children aged 7 to 15 working in automobile workshop. There are about 300 automobiles in which the major work done is by the children mainly in the car denting, car paint, mechanical and electrical sections.

3.3.1 Sample size

Researcher personally conducted a survey. In 300 automobiles workshop 1500 children aged 7 to 18 were working constitute the population of data. According to (Krejcie,1970) 15 percent to 17 percent sample size must be taken from population. To reduce sampling error, increasing sample size is important. Thus out of 300 automobile workshops 150 automobiles are randomly taken. From each automobile workshop two children are randomly selected. So, 300 (20 percent) children are the sample size of the study.

Figure 3.2: Selection of Sample Size



3.4 Data Collection Tools

Data will be collected by means of semi-structured interview. An interview will collect information from children and will include four sections. Section A will cover child characteristics consisting age, education, birth order, percentage contribution to family income, reasons of leaving school and work experience. Section B will be having questions regarding parents occupation, education, housing, physical fitness, drug addiction and per month income. Section c will inquire household characteristics i.e. earning family members, family income per month, family size, occupational family structure, sibling education, sibling disability and the number of children involved in labour. Section D have questions pertaining to working conditions i.e. total working hours per day availability of basic facilities, duration of mid-day break, type of punishment and type of injuries during.

3.5 Data Analysis

After collecting data, demographic variables, problems and working condition are analyzed by using percentage and frequencies while child labor are correlated with parental variables , parental socio-economic variable through inferential statistics. Finding and conclusion are drawn after analyzing the data. Suggestion and recommendation are proposed on the basis of findings and conclusion. Graphs, charts and tables are used to represent that data.

3.6 Evidence from Regression Technique:

The proposed study is intended to provide first the descriptive analysis of the study in order to examine three characteristics of child labour i.e. child own characteristics, household head characteristics and household characteristics. For further evidence on the subject issue the study intends to use the multiple regression techniques. At this second step the study modelles the working hours per of the children on categorical variables including birth order, work experience, household head Occupation, household head Education, physical health, family income per month, number of children involved in labour, wage per hour and family size. Algebraically, the relationship between per hour wage of children and independent variables are regressed as follows:

 $WH = \beta_0 + \beta_1 BO + \beta_2 WE + \beta_3 HHO + \beta_4 HHE + \beta_5 PH + \beta_6 FIPM + \beta_7 NCIL + \beta_8 FS + \beta_9 WPH + \varepsilon_i$ (1)

Where *WH* = *working hours* per day

BO = Birth order of the children

WE = work experience of the children FO = Household Head Occupation FE = Household Head Education PH = physical health of the fathers FIPM = income of the family per month NCIL = numbe of children involved in labour FS = size of the family WPH = wage per hour of the children¹

While ε_i is the error term capturing the average effect of all those variables which might influence the dependent variable but are not included in the model due to some reasons. We might do not have information about the omitted variables or the collection of data regarding the required variables are too expensive.

We cannot enter directly the categorical independent variables into regression model because it cannot be meaningfully interpreted and we therefore required an alternative way to deal with such issue. One alternative way comes in mind is the dummy coding which has the characteristic to transform a k level categorical variable into k-1 level. We transform the categorical variables into dichotomous variables by following the dummy coding technique. The dummy coding for one categorical variable (i.e. birth order) are presented here. We have four levels in birth order i.e. youngest, second to fifth, third to sixth and eldest who could be dummy coded into three variables i.e. youngest, second to fifth and third to sixth. The way in which the dummy coded are presented as follows:

¹ The per hour wage are constructed by first converting the per month income of the child into per day income and then multiplying it with the numbers of hour worked per day and then divide it by the total number of hours.

1 abic 5.1	Dunning Coucu Variables				
	Birth Order	Youngest	Second to Fifth	Third to Sixth	
Youngest	1	1	0	0	
Second to Fifth	2	0	1	0	
Third to Sixth	3	0	0	1	
Eldest	4	0	0	0	

Table 3.1Dummy Coded Variables

Definition of dependent and independent variables used in our model are given

in table (3.1) below.

Tuble 5.2. Demitton of Variables Obea in	
Variables	Definition
Dependent Variable Wor	king hours per day
Independent variables Chil	d Characteristics
Age of the children	Childs age in completed years
birth order	Birth order of child in his brothers
work experience	Work experience in completed years
Parental Ch	aracteristics
household head occupation	1 if Government employs
I	2 if wage earners
	3 if self-employed, and
	4 if unemployed
Household Head education,	1 if illiterate
	2 if primary
	3 if middle, and
	4 if matric and above
physical health,	1 if yes, and
	0 if no
Household C	haracteristics
Family income per month	1 if 0-10000
	2 if 10000-15000
	3 if 15000-20000
	4 if 20000 and above
Number of children involved in labour	1 if Only one child work
	2 if Two children work
	3 if Three children work
	4 if Four children work
Family	1 if family size is between 2-4
Size	2 if family size is between 5-7
	3 if family size is between 8-10
	4 if family size is between 10 and above
Wage per hour	Numerical value

Table 3.2: Definition of Variables Used in Regression

RESULTS AND DISCUSSIONS

4.1 Introduction

The data concerning the study was collected, structured and analyzed by means of the scientific methodology. The quantitative results of the study are discussed and presented in this chapter.

4.2 Descriptive analysis

The descriptive analysis is carried out to achieve the objective of the study along with to examine the demographic and socio-economic characteristics of the sample in the study area. To describe, categorize and summarize the data analytically in a comprehensive form, descriptive analysis is the most widely used technique Nachmias and Nachmias (1992). Percentages and classification of data is the center of descriptive analysis.

				Cumulative
Variable	Valid	Frequency	Percent	Percent
	7-8	24	8.0	8.0
	9-10	74	24.7	32.7
Age	11-14	128	42.7	75.3
	15-17	74	24.7	100
	Total	300	100.0	
Level of	Illiterate	85	28.3	20.2
Education	Primary	99	33.9	28.3
	Middle	17	5.7	01.5 67
	Matric and above	99	32.1	07
	Total	300	100	100
	youngest	7	2.3	2.3
Birth Order	Second to fifth	136	45.3	48
	Third to sixth	20	6.7	54.7
	Eldest	137	45.7	100
	Total	300	100.0	
	up to 1 year	61	20.3	20.3
Work	1-4 years	93	31.0	51.3
Experience	4-7 years	54	18.0	69.3
	7-10 years	92	30.7	100
	Total	300	100	
Income per	up to 1500	40	12.2	
month	1500-3000	40	13.3	13.3
	3000-5000	122	24.5	37.7
	5000 and above	64	41.0	78.7
	Total	300	21.3	100
		300	100	
Percentage	up to 20	17	5.7	57
contribution to	20-40	26	8.7	1/1 3
family income	40-60	175	58.3	72 7
	60 % and above	82	27.3	100
	Total	300	100.0	100
Reason of	lack of interest			
leaving school	Poor Economic	25	8.3	83
	Background	130	43.3	51.6
	future	94	31.3	82.9
	employment	51	17.0	100
	security	300	100	100
	Total			

 Table 4.1:
 Distribution of Respondents with Regards to Child Characteristic



Figure 4.1: Histogram of Respondents with Regards to Child Characteristic





Table 4.1 reveals that highest percentage of children that work in automobile workshop were between 11-14 years of age, followed by those children whose ages were in the range of 9-10 and 15-17 both had the same percentage of 24.7 percent. It is also evident from table 4.1 that about 28 percent of children working in automobile workshop had no education, 34 percent had primary education while matric and above had the second highest education with 32 percent. Similarly, out of total population of child labour the eldest children had the largest percentage of population followed by the second youngest. Those children who had 1 to 4 years of experience are 31 percent of the total population and those who had 7 to 10 years of experience constitute 30.7 percent of the gopulation. About 43.3 percent of the working child left school due to poor economic background in order to support their families financially. The second largest percentage (31.3 percent) of population left school due to future employment security. Children

who were earning "between" 3000 to 5000 had the largest percentage (41 percent) in total population followed by income group of 1500 to 3000. Percentage contribution to family income was conceivably the most significant determinant of child labour which is evident from table 4.1 showing that about 58 percent of the population contributed to family income in the range of 40-60 percent followed by those (27 percent) who contributed 60 percent and above. All these variables had significant role in determining child labour. Among them the birth order (for being the eldest one) decided to work in workshop and felt the children responsible for management of family activities.

				Cumulative
Variables	Valid	Frequency	Percent	Percent
Is Your Father	yes	264	88	88
Alive	no	36	12	100
	Total	300	100	
Where do you	rental house	118	39.3	39.3
live	own house	87	29.0	68.3
	relatives	8	2.7	71
	others	87	29	100
	Total	300	100	
Per month	nil	45	15.0	15.0
income	up to 8000	91	30.3	45.3
	9000-12000	74	24.7	70.0
	12000 or above	90	30	100
	Total	300	100	
Does father is	Yes	93	31%	31
Physically fit?	No	207	69%	100
Does father is	Yes	198	66%	66
drug addicted?	No	102	34%	100

Table 4.2:Distribution of Respondents with Regards to their Parental
Variables



Figure 4.2: Histogram of Respondents with Regards to their Parental Variables



Table 4.2 is regarding the parental variables. Majority of the children had alive father. Similarly, most of the child labour families lived in rental house along with the low income group constituted the largest percentage of population. More than half of population (69 percent) children fathers were not physically fit confirming that physical health is one of the significant determinant of child labour. 30 percent of the children father income was upto 8000 which was the lowest income reported by the respondent confirming that fathers who income was lower pushing their children to work rather

than to go to school. There exists high correlation between drug addicted and disable fathers and child labour, because children for the sake of support (financially) to their families they chose work instead of got to school. This is evident from our results where 66 percent of the children fathers were drug addicted while only 34 percent were non-addicted. All these numbers predicted that parental variables significantly influenced the child labour.

Variables	Valid	Frequency	Percent	Cumulative Percent
Earning	Nil	3	1.0	1.0
Family	2-4	147	49.0	50.0
members	5-7	146	48.7	98.7
	8-above	4	1.3	100
	Total	300	100	
household	Government employs	67	22.3	22.3
head	wage earners	102	34.0	56.3
Occupation	self employed	30	10.0	66.3
	unemployed	101	33.7	100
	Total	300	100	
Household	illiterate	183	61.0	61.0
Head	primary	43	14.3	75.3
Education	middle	32	10.7	86
	matric and above	42	14	100
	Total	300	100	
Family	0-10000	13	4.3	4.3
income per	10000-15000	99	33.0	37.3
month	15000-20000	90	30.0	67.3
	20000 and above	98	32.7	100.0
	Total	300	100	
Family	2-4	23	7.7	7.7
Size	5-7	95	30.0	39.7
	8-10	86	28.7	68.3
	10-above	96	31.7	100
	Total	300	100	
Occupational	Labourer		• •	• •
Family	Mechanic	114	38	38
Structure	Rickshaw driver	51	1/	55
	Dead/Unemployed	54	18	/3
		36	12	85
		45	15	100
Sibling	Dra school	60	20	17
Education	Primary	1/1	20 47	67
Luucation	Secondary	34	11 33	78
	Never went to school	65	21.67	100
Sibling	Physical impairments			57.3
Disability	Spinal Cord	172	57.33	72.3
	Disability	45	15	92.6
	Brain disability	61	20.33	100
	Learning disabilities	22	1.55	
Number of	Only one child work			
Children	Two children work	122	40.6	40.6
Involved in	Three children work			
Labour	Four children work	93	31	71.6
		<i></i>		
		65	21.6	93.2
		20	6.6	100

Table 4.3:Distribution of Respondents with Regards to their Household
Characteristics



Figure 4.3: Histogram of Respondents with Regards to their Household Characteristics



Mean = 2.91 Std. Dev. = .908 N = 300 Frequency 40 2.00 family, 3.00 5 Note: 1 represent that child has no other earning family members, 2 represent that child has 2-4 earning family members, 3 represent that child has 5-7 earning family members and 4 represent that child has 8 earning family members and above. Note: 1 represent that total per month of the children family is up to 10000, 2 represent that total per month income of the children family is 10000-15000, 3 represent that total per month income of the children family is 15000-20000, and 4 represent that total per month income of the children family is 20000and above. 300 Mean = 2.75 Std. Dev. = .628 N = 300 Frequency 100 3.00 education do 1 00 2.00 sibling 4 00 5 60 300 Mean = 2.95 Std. Dev. = .43 N = 300 Frequency 1 00 4.00 1.00 s bi 2.00 sibling 3.00 disability Note: 1 represent that sibling has pre-school education, 2 represent that sibling has primary education, 3 represent that sibling secondary education and 4 represent that sibling never went to school.

Note: 1 represent that sibling are physically impaired, 2 represent that sibling has spinal cord disability, 3 represent that sibling has brain disability and 4 represent that sibling has learning disability.



Regarding household characteristics children having 2-4 earning family members had the largest population (49 percent) followed by those who have earning family members of 5-7 while those who had earning family members of 8 and above constitute only 1.3 percent of the population. Most of the children household head occupation were wage earners and were unemployed while government employees constituted only 22 percent of the population. More than half of the population household head were illiterate, which became the major factor that pushed children to work in automobile workshop. The largest population of the children whose family income ranges from 10-15 thousands were 33 percent. Experience shows that large family size are mostly supported by their eldest children in the family. Our data also support such experience where the largest family size constituted the greatest percentage of 31.7 percent followed by the second smallest family. The smallest family size had the smallest percentage of population. Labour centered past occupational family structure may also be one of the reason of child labour. Most of the families (38 percent) occupational structure were laborer followed by rickshaw driver (18 percent) and mechanic (17 percent). Elder children often choose work rather than going to school to support their sibling education. About 47 percent and 57 percent of the children responded that their sibling education is primary and having disability (physically impaired) respectively, while about 22 percent responded that their children had never been to school. About 41 percent of population responded that only one child involved in labour followed by those (31 percent) who say that two children are involved in labour.

Variables	Valid	Frequency	Percent	Cumulative Percent
Rasic facilities at	Valu	118	30.3	20.3
workshop	yes	110	<u> </u>	100.0
workshop	Total	300	100.0	100.0
Are vou	ves	254	84.7	84.7
punished at	no	46	15.3	100.0
work place	Total	300	100.0	
Type of punishment	physical abuse	91	30.3	30.3
	verbal abuse	28	9.3	39.7
	salary deduction	165	55.0	94.7
	extra work	16	5.3	100.0
	Total	300	100.0	
Working	yes	232	77.3	77.3
condition	No	68	22.6	100.0
hazardous or Dangerous?	Total	300	100.0	
Injuries faced during work	cuts and burns	76	25.3	25.3
	orthopaedics injuries	170	56.7	82.0
	skin allergies	32	10.7	92.7
	eye or ear infection	22	7.3	100.0
	Total	300	100.0	
Protective tools	Yes	5	1.6	1.6
available?	No	295	98.4	100
	Total	300	100.0	

 Table 4.4: Distribution of Respondents with Regards to their Working Condition



Figure 4.4: Histogram of Respondents with Regards to their Working Condition



The study also tried to get knowledge of the working condition where child work, in order to know where the children are been exploited or not. In this regard 61 percent of the population responded that there was no basic facility available at their work place while only 39 percent respond in yes. Similarly, children punished at work place are 85 percent whereby only 15 percent were not punished at work place. Most of the children were punished by deducting their salaries (55 percent) followed by physical abuse (30 percent). About 77 percent of the population responded that their working conditions were hazardous/dangerous to health while the rest responded in "No". Most of the children (57 percent) faced orthopedics injuries during work followed by cuts and burns (25 percent) while the least population is those who faced eye or ear infections. Only 5 percent of the population had protective tools available whereas the rest did not had the tools.

4.3 **Regression Results**

We estimate the equation (1) through ordinary least square (OLS) regression the results of which is shown in table 4.2.1. We report the coefficients of the model and the probability value. It demonstrate the results of the independent variables, most of the coefficients are significant (all the p-values are equal to or less than 5 percent) having correct theoretical signs. The positive sign on the coefficients of age and its magnitude tell us that as compare to base category (age group 7-8) the upper age groups (9-10, 11-14 and 15-17) working hours per day are respectively 8.14, 4.32 and 5.71 times greater. Age is positively and significantly related with working hours per hour and old child earning more per hour than young child. This is because old children could be more experienced than the young children along with old have the capability to work more than the young. This evidence are further confirmed by the birth order variable where the relatively older in birth order as compare to the youngest are working 7.48 and 8.58 times more hours respectively. One exception is that, that age group of second to fifth are negatively but insignificantly related to working hours per day. For this one justification could be given from the fact that this group is very close to the youngest age group. More experienced children are considered to be working more hours than the less experienced children and this is what our results also confirm. Children who had experience of 1-4 years are working 3.59 times higher than the base categories who were experienced up to only one year. Similarly, those children who had experience of 4-7 and 7-10 years working respectively 1.61 and 5.29 times higher than those who had only one year of experience.

Three variables from parent's characteristics can also influence the working hours per day of the children including household head occupation, household head education and physical health of the household head. The results show that the working hours per day are 4.21 times higher of those children whose household head were wage earners as compared to whose household head were government employees. This was so because the children whose household head were wage earners were forced to work more. The working hours of the children whose household head were unemployed are 7 times higher as compare to the reference category because the parents were supported financially by their children. Working hours per day of those children whose household head were less than those whose household head were less educated. This might be because the educated household head children work less than the less educated household head. Similarly children having physically unfit fathers working 9.52 times more than those whose fathers were physically fit because children's of physically unfit fathers work more than the physical fit fathers.

The results are also reported regarding the household characteristics. Those children whose family income were higher work less hours per day as compare to whose children whose family income was less because children of the higher family income worked less hours. Similarly, working hours of the children belonging to big family size were higher because they had to work to meet the higher needs of their family as compare to who had less family members and therefore less expenses. Lastly, working hours per day would be higher if more children in the family force to work because more children work mean that their elder wants them to work more to meet the rising demand of their families.

The model is well fitted and it can be judged from the R^2 value. A high value indicated good fitted meaning that the explanatory power of the model is high and vice versa. In other words, a high R square value means that the independent variables explain more of the variation in the dependent variables. In our case an R square value of 0.73 mean that the regression explains about 73 percent of the variation in the dependent variable (i.e. working hours per day) and the rest 23 percent might be because of some other variables not included in the model due to some reasons. The overall significances of the model can be judged from the F-statistics value which is quite high in our case maintaining that the null hypothesis of "no effect of Regress or on the impact variable" can be rejected.

Variables	Coefficients	P-value
Age (7-8)*		
Age (9-10)	8.14	0.02
Age (11-14)	4.32	0.001
Age (15-17)	5.71	0.03
Birth Order (Youngest)*		
Birth Order(second to fifth)	-3.09	0.12
Birth Order (third to sixth)	7.48	0.03
Birth Order (eldest)	8.58	0.04
Work Experience (up to 1 year)*		
Work Experience (1-4)	3.59	0.005
Work Experience (4-7)	1.61	0.020
Work Experience (7-10)	5.29	0.005
Wage per hour		
household head is government employs*		
household head is wage earners	4.21	0.05
household head is self employed	2.15	0.00
household head is unemployed	7.19	0.00
household head is illiterate*		
household head is primary	5.61	0.03
household head is middle	-3.22	0.00
household head is matric & above	-7.32	0.00
father is Physically fit*		
father is not Physically fit	9.52	0.06
Family income per month 0-10000*		
Family income per month 10000-15000	3.58	0.04
Family income per month 15000-20000	-5.04	0.03
Family income per month 20000 and above	-1.21	0.21
Family Size 2-4*		
Family Size 5-7	1.34	0.03
Family Size 8-10	2.53	0.05
Family Size 10-above	6.31	0.00
Only one child work*		
Two children work	4.54	0.01
Three children work	1.39	0.04
Four children work	5.55	0.15
Constant	12.22	0.003
R^2	().73
F-Statistics	23.31	0.07

 Table 4.2.1:
 Regression Results (dependent variable working hours per day)

DISCUSSION, CONCLUSION AND POLICY OUTCOMES

Three important aspects of child labour (child, Parental, and household) were examined in this study. The children own aspects of child labour showed that majority of the children working in automobile were in the ages of 11-14 years while most of the children had only primary education exposure. Moreover, children belonging to large families has the greatest proportion in total population along with most of the children in automobile workshop were the eldest in birth order. Similarly, most of the children acquired considerable experience which were likely to help them in future work. Most of the children were earning only "between" 3000 to 5000 while they contributed about 60 percent in family income. About 58 percent of the working children left school due to poor economic background in order to support their families financially

Majority of the children had alive household head who were wage earners and unemployed. Uneducated household head were in higher proportion that pushed their children for work in automobile workshop. Similarly, those families who lived in rental house and had low income constituted the largest percentage of population. Similarly, those parents who had less monthly income were the largest in population. Fathers of most of the children in the total population that joined work were either physically unfit, drug addicted or were suffering from disability.

Families who had less earning family members, large family and less family income had the greatest percentage working in automobile workshop. Laborer household by profession, siblings having primary education and spinal cord disability along with those household whose two children were going to work constituted the largest population among the total interviewed children. The working environment were generally not satisfactory (About 77 percent of the population responded that their working condition were hazardous/dangerous to health) because most of the children worked for long time as well as they had no basic facilities available at their work place. Most of the children were allowed to have mid-day break of up to one hour whereas most of them were punished at work place (85 percent) by deducting their salaries (55 percent). Due to unavailability of protective tools to 95 percent population, most of the children (57 percent) faced orthopedics injuries during work followed by cuts and burns (25 percent).

The descriptive analysis only gives the information about the distribution of the population, for measurement we need some inferential analysis and therefore we estimate the working hours per day equation in order to know that how working hours per day are influenced by categorical variables. Old age children are working more per day than young age children which is further confirmed by the birth order and child experience variables. Similarly, children of those household head who are either unemployed or wage earners and are less educated are working more hours per day than employed and more educated household head children. Physical fitness of fathers also enhanced the working of the children's. Lastly children belongs to families having higher income, small family members and those who belongs to families where less children's are forced to work are working less hours per day than their respective base categories.

Study findings disclose some important indicators of child labour such as household income has two sided effect. It may reduce child labour if it is higher by feeling themselves well-off and in opposite way it has the tendency to increase child labour. Our findings are in line with (Rashid et al., 2015) regarding parental characteristics and working condition. In other studies (Mahmood et al., 2005; Bhat & Rather, 2009)

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maintain that socio-economic factors has deep association with child labour. The main factor the study identified is the poverty that compel parents to push their children to work instead to educate them. Theoretically, it is proved by (Basu, 1998) that low income is the only reason that causes child labour. Our results also match with (Khan et al., 2007) regarding parent's literacy, their profession and monthly income.

RECOMMENDATIONS

Child laborers are a floating part of population. They are primarily deprived in terms of economy, education, and health. To remove their economic deprivation and after all to eradicate child labor from our country, the followings measures can be taken:

- i. The role of poverty could be assessed through wealth dimension of the household along with other socio-demographic factors to determine whether there exist any linkages of child labor with poverty in other parts of the country. If this is so, then practitioners and academia must divert their attention to search for the root cause of poverty and formulate the appropriate policies.
- ii. Quality of schooling should be improved by investing in education so as to increase its value to children and parents. Perhaps the most effective policy is the affordable and accessible education policy as education directly reduce the time devoted to child work and also education enhance human capital, productivity, more income and hence reduce the likeliness of children to engage in work.
- iii. Children are basically the victim of vicious cycle of poverty. If the new work opportunity is created for poor people and inequality is reduced between rich and poor, then child labor will decline
- iv. Effective Coordination between government and various NGO's should be carried eradication of child labor.

- v. Primary education has to be mandatory for child workers.
- vi. National child policy adopted by government has to be implemented.
- vii. International and national mechanism and legislation have to be implemented.

The study results suggest to conduct study in other parts of the country (especially other parts of KPK) by focusing to identify the role of poverty in forcing child to labor.

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APPENDIX

Variables	N	Mean	Standard Deviation
1 if child labour, 0 otherwise	300	0.61	0.49
Regressor (Child characteristics)			
Age of the children	300	2.83	.89
level of education	300	2.43	1.21
Birth order	300	2.95	1.00
Work experience	300	2.59	1.12
Income per month	300	2.70	.95
Percentage contribution to family income	300	3.07	.76
Reason of living school	300	1.85	.68

Appendix 1: Definition, Mean and Standard Deviation of Variables.

Appendix 2: Definition, Mean and Standard Deviation of Variables.

Definition	Ν	Mean	Standard
			Deviation
1 if child labour, 0 otherwise	300	0.61	0.49
Regressor (parents characteristics)			
Father is alive or not	300	1.24	.73
household head occupation	300	2.55	1.17
Household head education,	300	1.77	1.10
living place,	300	2.69	1.05
Per month income,	300	2.21	1.24
Physical health,	300	.343	.47
Father drug addiction	300	.666	.47
Disability		.640	.48

Appendix 3: Definition, Mean and Standard Deviation of Variables.

Variables	Ν	Mean	Standard
			Deviation
1 if child labour, 0 otherwise	300	0.61	0.49
Regressor (household characteristics)			
Earning Family members	300	2.97	1.00
Family income per month	300	2.91	.90
Family Size	300	2.84	.96
Occupational Family Structure	300	1.99	.80
Sibling Education	300	2.75	.62
Sibling Disability	300	2.95	.43
Number of Children Involved in labour	300	2.85	.48