



The Interrelation between Political Instability and Child Labour in Developing Countries

Fabeha Rao*¹ Asif Hussain² Muhammad Farhan Ashraf³

^{1*,2,3} MS Scholar, Department of Economics, The Islamia University of Bahawalpur, Pakistan.

Corresponding author: fabeharao@gmail.com

Keywords: Child Labor, Political Instability, Economic Growth, Urbanization

JEL Classification: R23, O17, O4, J30

Article **History**

Date of Submission:
22-10-2021

Date of Acceptance:
14-12-2021

Date of Publication: 31-12-2021

How to cite?

Fabeha, Hussain A., Ashraf M.F., (2021). The Interrelation Between Political Instability and Child Labour in Developing Countries Research Journal for Societal Issues. 3(1), 01-27.

DOI No:
<https://doi.org/10.56976/rjsi.v3i1.24>

This study has examined the impact of political instability on child labour on the panel of 53 developing economies. To conduct this analysis, this study has applied GMM (generalized method of moments) techniques to the panel data of child labour (dependent variable) and political instability urbanisation, inflation, gross domestic product, and trade (independent variables) from 2000 to 2015. In addition, it has conducted the disaggregated analysis, which is based on the level of income in developing economies. This study has concluded that political instability has a positive impact on child labour in developing countries. Child labour is positively related to inflation and trade, negatively associated with economic growth rate and urbanization. According to disaggregated analysis, political instability also positively affects child labour in low-income and high-income countries. Still, trade has a positive impact on high-income countries and a negative impact on low-income countries. In addition, control variables and child labour in the primary model and disaggregate analysis have the same relationships. Empirical results of this study suggest that political instability plays a critical role in increasing child labour in developing countries and has indicated that the government of developing countries should pay particular attention to political instability. Child labour can be reduced by taking good steps toward controlling political instability.



Introduction:

Child labour is referred to a child work which put them far away from their childhood, potential and self-esteem, which is harmful for these child physical and psychological progress, (ILO, 2017). Here child labour is discussed in three age groups i.e., 5-17 years, 5-14 years and 15-17 years, and in three situations i.e., children in child labour, in employment and in harmful work. As stated by Ab-Rahim (2021), Political instability plays a role to increase child labour in developing countries and directly related to child labour. Child labour is not a new problem for the world problem. It was also a widely discussed problem both in the developed countries and developing countries. Child labour exists in every stage of the development of the countries. There is a serious relationship has been shown among child labour and globalization, financial development and income variability, trade liberalization, trade openness, foreign direct investment international trade, economic growth, media globalization, FDI, economic growth and poverty during the last decades (Abdullahi et al., 2016).

Child labor badly affects the social welfare of society. However, all working children are not considered as child labor; for example, children whose work have no effect on their health, education or career not considered as child labor but they are appreciated for their extra activities. Such actions help in children's development and their family's welfare. To find out the child labour and political instability relationship and for further suggestion we have conducted this study, this study hypothesis is that both have the positive/ direct relationship between them.

As defined by the ILO (2017), child labor including children in employment and in hazardous work from the age of 5-17 years old has been declined by 9.7%, 13.8% and 5.4% respectively during 2012 and 2016. Similarly, this declined also occurred for the age group of 5-17 years old children. If we compare the data for child in labor, in employment, in hazardous work of different regions such as America, Africa, Asia & pacific, Europe & Central Asia, Arab states then Arab states has the lowest rate for all these measures.

Child labor has the significant contribution in different sectors like agriculture, industry and services in different regions. As per Segnon et al. (2021) in agriculture area there is a highest ratio of child labour exist around the world which is 70.9%. Africa has the highest child labour in agriculture sector, America has in services sector, Asia and pacific has in industrial sector. On the other hand, children in labor and hazardous work have highest rate in low-income countries which is 19.6% and 8.8% respectively. Additionally high-income countries have the lowest rate for both which is 1.2% and 1% respectively. As per Understanding Children Work (2018) Chad has the highest average value of child labour which is 35.26%. The reason is that in Chad most children are kidnap and forced them to work in labour market.

Political instability is the running issue in developing countries. Due to political instability the job opportunity is not available in developing country. The head of the household have not enough income to fulfill the needs of life. To fulfill such needs these children go in labour market in developing countries. Here the question emerged that in these nations whether the political instability is propagating the child labour. It is going to be analyzed



through econometric analysis utilizing the panel data of developing countries.

This study is going to answer the following questions by analyzing the political instability impact on child labor on panel data, and then going to offer some policy-oriented directions future research. Main objective of this study is to evaluate the political instability impact on child labor in developing economies. And then to inspect determine of political instability on child labor both in low income and high-income developing nations. This study contributes to the basic understanding of relationship among variables related with most popular issue of the world i.e., child labour. Sahin et al. (2016) finds out that poor economic growth of a country leads to increase in child labour. As per Fatima (2017), Child labour can be controlled by the efficient policies of state like free education, financial incentives and setting up the labour market rules and it is the state duty to implement such policies efficiently to mitigate child labour.

Literature gap

As per previous literature such as Sahin et al. (2016) and Fatima (2017) state plays a main role in the development of any country which leads to mitigate the child labour in a country. As per previous literature developed countries has a low rate of child labour as compare to developing countries. One of the hinderance in the way of development of a country is political instability which leads to inefficiency in the completion and implementation of newly planned projects and rules for development due to which child labour cannot be controlled up to targeted level. But here we cannot find any study which is organized on the relationship among child labour and political instability in developing countries. Most of the people talk about this aspect but no one arrange and analyzed it by taking authentic data empirically. Here it is needed to analyze it. It is the state duty to implement such policies efficiently to mitigate child labour. From these studies it is clear that state has a main role in mitigating the child labour. A stable political system leads to the efficient work of state. As we know that that most of the developing countries face conflicts in their political system and have a unstable political system which cause for hurdles in the implementation of such programs and policies. This political instability drastically impact to child labour some time directly and sometime indirectly in developing countries. But here we cannot find any major study related nexus between child labour and political instability in developing countries. Here it is needed to measure its relationship which could help the developing countries to make stable their political system which leads to mitigate child labour.

This study is going to fill the gap in previous studies by organizing a study by investigating the impact of political instability on child labour in developing countries by using panel data analysis.

Organization of the study

The layout of the paper is the following where second section includes a detailed review of the literature related political instability impact on child labor in developing economies. Third section analyzes the theoretical background. Next section discusses the data and the econometric approach, as well as the panel evidence on the nexus between political instability on child labor. Next estimates the results and discussion. Sixth section estimates



for the empirical results of disaggregated data. Next summarizes the findings and offers some policy-oriented guidelines for upcoming research.

Literature Review

In this section we have discussed both the theoretical and empirical studies which are indirectly related to the political instability and child labour and some are directly related to the effect of child labour.

As per Ray (2000) has specified the experience of two premises and concluded the positive association amongst poverty and the child labour, and inverse relation between playgroup school and poverty by using Pakistani data. This study results consider to child labour income as a cause of poverty rate reduction in Pakistan in comparison of Peru. This study confirms the encouraging character that the adult education improvement can play in cultivating children's well-being. Becchetti and Trovato (2002) in his study investigated the child labour-GDP per capita relationship by using variables including child labour as dependent variable and gross domestic product, parental education and trade liberalization, quality of education, rural life as independent variables and used the model Simple Intra household Bargaining model. Results concluded that negative relationship between trade, quality of education per capita GDP and participation rates of children aged 10-14.

Goldstone et al (2005) have conducted a study which contained analysis related global forecasting model political instability to find out research conducted by the Political Instability Task Force and data was collected by open source. Political instability was used as dependent variable. Logistic model was used in the study for analyses. The aforementioned findings on partial autocracies and partial democracies with factionalism appear to be overwhelming evidence of Tocqueville's wisdom. Indeed, as President Jimmy Carter found the hard way both Iran and Nicaragua, persuading brutal tyrants to lose their grip on power is more likely to spark violent political upheavals than to clear the way for a peaceful transition to genuine democracy. Bussmann et al, (2006) in this study analyzed trade liberalization and political instability in developing economies. Political instability was use as dependent variable. Foreign economic openness and liberalization were use as independent variable. Economic growth statistics show that the concept that rich countries have fewer disputes than poor countries is unfounded, at least in terms of protests. Rather, we can see that protests are more prevalent in wealthy countries, a statistically significant conclusion. The results of openness and liberalization are unaffected by the level of development and economic growth. When the democracy variables are removed from the equation, however, openness loses its value.

Ab-Rahim (2021) have investigated the effect of globalization on child labour in developing countries. Results revealed that child labour increase with the increase in foreign direct investment and decrease child labour when gross domestic product and trade increase. Muhammad et al, (2011) has analyzed the violence political instability and international trade. Political instability used as dependent variable while other variables were independent. Rotterdam model was use for the analyses. Results revealed that import demand in European Union is inelastic for all countries. To assess the possible impact of the findings, the researchers calculated the tariff equivalent of the Kenyan incidents.



Kenyan imports reached over 68 million kg in 2007, priced at €3.56 per kg.

Abdullahi et al. (2016) investigated the association between economic growth and child labour in developing countries by using panel data. The dependent variable used in his study is gross domestic product and independent variables used were gross capital formation, investment in human capital, trade openness, population growth and child labour. The methodology used is the generalized method of moments. The results show that economic growth initially increases child labour but as growth is sustained over time, child labour tends to decline in developing countries. Abdullahi et al. (2016) looked into the relationship between poverty and child labour in 42 low-income countries. In developing countries, there is a negative association between child labour and economic disparity, according to this study. They suggested that governments in developing nations establish information laws on the ban of child labour in an effort to eliminate it.

Sahin et al. (2016) finds out that poor economic growth of a country leads to an increase in child labour. Here poor families utilize their child for getting money by sending them to work at the age when they need to study. These families do this to meet their financial needs which leads to an increase in child labour. His study suggested that a step taken by the state in terms of sustainable development projects and programs can control child labour in developing countries. According to Mahmud et al. (2016) in developing countries child labour is very high and too common which is a form of abuse.

According to Zafar et al. (2016), child labour is a rising worldwide issue, especially in the developing countries, as well as Pakistan is no exception. There are a variety of factors that contribute to the difficulty of child labour, whether knowingly or unknowingly. Child labour has a number of negative consequences that disrupt society's moral structure, and the Pakistani government should take all available and suitable steps to counteract this scourge. This study indicates that awareness initiatives for children and their parents at the national level, as well as excellent education, basic necessities fulfillment for poorer populations, egalitarianism, and equality, would contribute to child labour control.

As per report Fatima (2017), child labour can be controlled when the government arranges a number of programs related to the schooling system through providing financial incentives for school attendance, for providing free and compulsory education of good quality from the minimum age of admission to the age of job etc. These types of programs help to control child labour and increase school attendance on the country level. This is the state's duty to protect their children's by arranging such programs, by providing social protections to their people and by setting up the strict rules for the labour market. As per Kumar and Saqib (2017), working children's in developing countries dropped out from school or faced poor academic records.

The impact of trade openness & FDI on the number of child labour has indeed been addressed by Wang (2017). He utilized child labour as a dependent variable and workforce participation rate, trade, foreign direct investment, and gross domestic product as predictor factors, as well as education spending and rural population. He discovered a negative association between GDP and child labour, as well as a positive relationship with child labour and labour participation rate, as well as trade and education spending.

As per a report of ending child labour, forced labour and human trafficking in global supply



chain, child labour can be controlled by improving economic growth, employment level, developing skills and transfer to advance technology. All these things can be possible in a country by linking with a global supply chain, which is the state duty to make implement these developments in a country by linking with global supply chain for mitigating child labour in a country.

Tariq et al. (2020) have analyzed child and labour in South Asian Association for Regional Cooperation (SARC) countries and concluded that just promoting to the trade cannot control the child labour until when state could take in account other related measure like trade impact on child labour. Their study suggested that trade liberalization through trade-induced effect can help to mitigate child labour in developing countries. As per Tariq et al. (2020) child labour caused by high poverty rates, poor school quality and poor social conditions.

This study is going to fill the gap in previous studies by organizing a study by investigating the impact of political instability on child labour in developing countries by using panel data analysis.

Theoretical Framework

This section gives the theoretical system for assessing the effect of political instability on child labour in developing nations. This section discloses related theories to clarify connection among the variables. The variables help to build an investigational model to estimate the supposition of the study.

If the child work does not affect their education, health then they are not considered as child labor. Usually, they are appreciated for contribution in family income and leading them. These activities do not harm a child physically and mentally. ILO defines the child labour as “work that deprives children from their childhood, their potential and their dignity, and that is harmful to physical and mental development”. It refers to work that is physically, intellectually, socially, and morally detrimental to children, obstructs their schooling, deprives them of the opportunity to attend school, forces them to leave school early, or forces them to attend school with excessively long and hard work.

Some of the legal boundaries have been set up for the child labour by the deferent international convocation some important convocations are these rights of the child from UN and ILO. This convocation provides action against child labour legal grounds for national and international. These resolutions have been approved in the 18th international conference of labour.

Some worst form of child labour is included as: first is slavery, a slave occurs at the time of birth, captures moments and not permission to refuse to do any work. Second is Smuggling of children which is not legal profession (purchase and sale). Third is Debt Bondage is constrained work, a poor family can give their youngster to somebody to pay off their obligation. Fourth is Serfdom is a situation at which an individual is compelled to live and forced to work on that land which is belonging to another person on very low wages or no pay any wages of work to child. Fifth is Forced work at somewhere, this type of child labour is called forced child labour (ILO, 2017).

Children and their parents were obliged to labour in factories during the industrial



revolution due to low wages, which was extremely damaging to their health (Basu et al., 1999). Between 1833 and 1844, the first rule against child labour was enacted, which made it illegal for children to work in businesses (Bhat, 2011). In developed nation child labour was almost completely reduced but in developing and low-income countries child labour issue increases day by day because of increase in population growth, high rates of unemployment, continuously rise in prices, scarcity, malnourishment, bad guidance, rapidly increase in bribery and wages that rate is very low (Moyi, 2010). To analyze child labor data in different sector is very difficult due to lack of data availability because of government instability not talking a step towards collect the data of child labor (Bhat, 2011). According to the International Labor Organization (ILO), about 216 million girls and boys between the ages of 5 and 17 work around the world, with 115 million of them doing dangerous employment (Aqil et al., 2018).

Due to poor earnings and family income in various sectors in developing nations, parents send their children into the labour market to meet their fundamental needs. According to a Peruvian study, children from 9 to 11 years old generated 75% of family income, while children aged 12 and up to 15 years old contributed 15% (Aqil et al., 2018). According to another survey, children contribute up to 20% to 24% of family income (Psacharopoulos, 1997). Various experts have given their interpretations of the phrase "child labour." Different studies have used various definitions for child labour. These definitions have been given in Table 3.1. Child labour defines in different word by different authors and organizations in respective age of the children and nature of the work. The definitions of the child labour are given below:

As per Basu (1999) a child is said to be a laborer if it is economically active and stated that, the age of the working children is between 5 to 14 years is classified child labour in two categories (a) the children whose age between 5 to 11 years spend one hour on economic activities and almost 28 hours spend on domestic work. (b) the children whose age between 12 to 14 years spend 14 hours working on economic activities and 42 hours on domestic work. According to ILO (2017) the work which deprives the childhood of the children decrease the potential of the children and also deprives the self-respect of the child then the child is said to be in child labour. This work is also damaging the mental and physical development of the child. Moyi (2010) has stated that child work that have low wages, long hours of work, deprives from schooling, engage in physical demanding tasks or experience abuse.

In recent years due to the growing interest for the child labour problem and its solution this is a debating issue, therefore a lot of theories are developed. Psacharopoulos (1997) analyses the issue of child labour in relation to the educational attainment in Bolivia and Venezuela. Patrinos and Psacharopoulos (1997) study the child labour in Peru, Jensen & Nielsen (1997) analyzed child labour for Zambia and Khan et al. (2019) examined the relation between child schooling and child labour in Pakistan. Ray (2000) show interrelation between adult and child labour market. They derive result from two axioms which had been referring as "Luxury axiom" and "Substitution axiom".

Ray (2000) empirically investigates these hypotheses to see if there is a link between child labour, child schooling, and adult labour when adult earnings are included as a driver of



child labour. Ray (2000) looked into child labour in Peru and Pakistan and discovered notable differences between the two countries. Ray (2000) incorporated certain community infrastructure variables as a driver of child labour to identify this effect. The relationship between child labour and globalization has also been studied in recent years (Doytch et al., 2014).

Most governments have conducted numerous surveys to analyse the issue of child labour in their countries. The ILO, the UCW project, and UNICEF, in particular, have taken steps ahead to research child labour, but precise measures of child labour are still lacking because the majority of children work in the informal sector, and the need for accurate measures of child labour is growing (Doytch et al., 2014). Ray (2000) used the labour force participation rate of children aged 10 to 14 as a proxy for child labour. This data gives some advantage. It provides an insight about the child labour for large number of countries over several periods of time. In this way large numbers of children who are economically active are excluded. This measure of child labour was used by Doytch et al. (2014).

Another measure of child labour was developed by Kucera (2002). It is based on the US department reports about the human rights and the Miller (2021) reports. It indicates that whether there is significant evidence of the child labour in 1995 for about 170 countries. It captures the incident of child labour in seven sectors of a country. It did not measure the child labour on the basis of age.

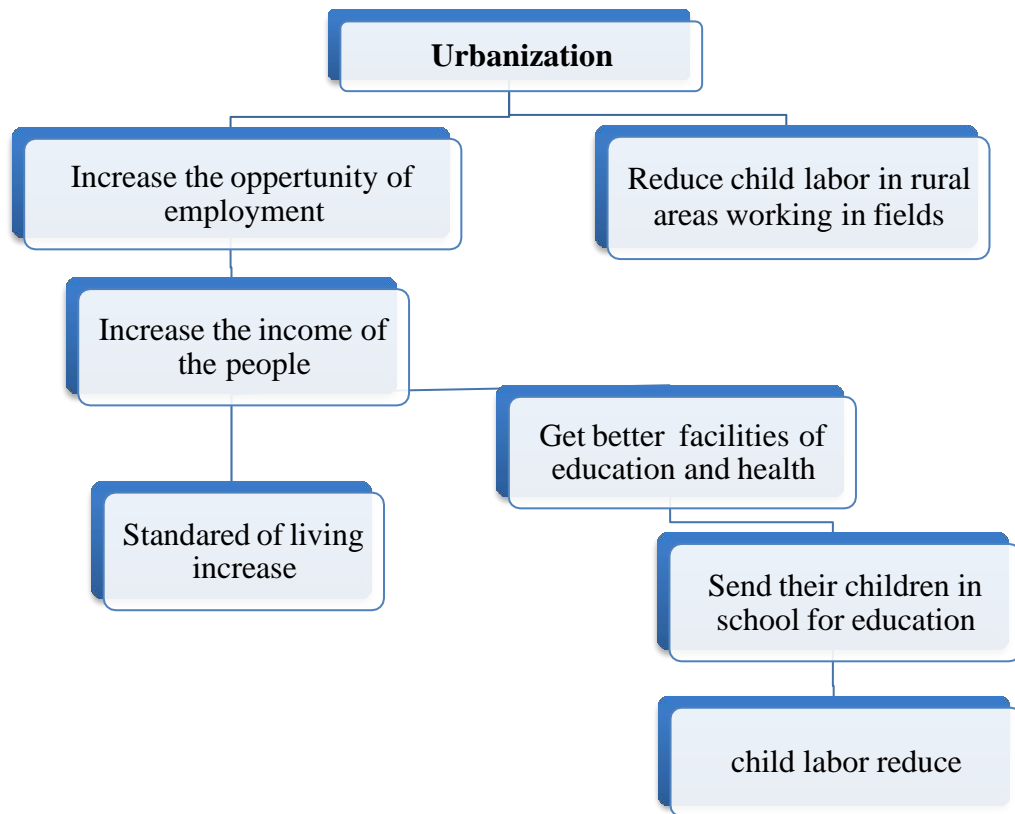
Mostly child labor is consolidated as a part of a national culture. When the United States and Britain first tried to abolish child labour, both nations faced severe battles against populations that considered child labour an important part of growth and today the same problem is found in developing nations.

Child labour must not be misconstrued with working children, as per the Miller (2021). Child labour, in instance, encompasses actions that restrict minors of their youth, ability, and respect, as well as actions that may have a negative effect on the mental and physical growth; it is thus seriously harmful. Youths must be at least 15 years old to lawfully join in the labour force, according to the Miller (2021) Legal Age Agreement. UNICEF has expanded on the definitions mentioned above, emphasizing the necessity of both household and economic work. Youths aged 5–11 involved in any business activity or at least 28 hours of domestic duties, youths aged 12–14 involved in any economic activity, with the exception of routine work for no upwards of 14 hours weekly, and youths aged 15–16 committed in any dangerous jobs are all considered to be embroiled in child labour (Ansell et al., 2007). As a result, it is argued that no widely accepted definition of the situation exists. Consequently, the international labor organization stated that numerous aspects must be examined when defining "work" as child workers, namely age, hours and kinds of job, workplace conditions, and aims.

There are some socio-economic factors which affect child labour such as first is dependency ratio, such as the size of the family has a result on child labour. Second is family condition, an increase in number of children lost their parents or one of them and peoples affected by hepatitis or AIDS in the family (Vandenberg, 2007). Third is traditional factor such as, Vandenberg (2007) expect that numerous African need their children to participate in family wage. Fourth is civil war, war abolishes to the budget of the nation,

people converted to poverty and all resources go to war. Fifth is humancapital of parents, Emerson and Souza (2003) has stated that parental human capital is playsrole in placing children to work. Sixth is education of parents, Peek (1978) states that the paid work of children is inversely related to the home income and education of the father. Seventh is urban and rural locality. Eighth is lack of implementation of law.

There are some microeconomic determinants of child labour first is political instability and most of the developing countries face it. Where high political instability is the cause of high child labour. Second is urbanization Due to poverty children faces many problems of poverty. Children of urban regions are at particular danger of numerous issues, for example, nonattendance of school, medicinal services and social protection (Baker et al., 2008).



Urbanization looked to be in a negative affiliation with child labour. Ersado and Gignoux (2017) found a stronger link between poverty and working children in rural region than urban areas. Third is inflation, most of study concluded that unpropitious production, health and economic ups and down positively affect the child labour (Bandara et al., 2015; Dillon, 2013). By this idea we may expect that the higher prices of the basket of goods positively affect the child labour. Fourth is economic growth, growth is one key variable in our study. It will be used as a control variable in the study of the impact of urbanization on child labour in developing economies. This variable represents the annual growth of GDP (%). It is observed directly from the World development indicators of World Bank (World Bank, 2016) and will be denoted by GDP. Most of the previous study concluded that gross domestic product is negatively link to child labour. Increase in gross domestic



product the wage of the educated people is according to their education and also increase the wages of the other laborer in the country then the child labour reduces (Cigno et al., 2002). Sixth is Trade means the exchange of goods and service within a country and out of country. Cigno et al. (2002) found that the trade has positively affects the child labour. “Dagdemiir et al. (2010) in his study explained that trade effects child labour negatively. The first is unemployment, which is one of the other predictors of child labour. Duryea et al. (2007) also proposed that in Brazil's urban regions, it is the father's responsibility to motivate their children to work hard and enhance the family's income. Some factors compelled youngsters to work in order to supplement their families' finances (Ahmad, 2012). Second, poverty is a major factor in the rise of child labour in emerging countries. According to the Miller (2021), child labour accounts for around 20% of family earnings, and because impoverished families spend the majority of their income on food, children's earnings are critical in raising living standards. Duryea, et al. (2007) found that the father of the family's income urges the children to work in the market to supplement the family's income. The third type of crime is corruption, which is described as "the use of public office for personal benefit" (World Bank 1997). The fourth issue is population increase, which is a major concern in emerging countries. The fifth factor is FDI. According to Dagdemiir et al. (2010), foreign direct investment has a favorable relationship with child labour. The sixth factor is health expenditures, which Cigno (2002) found to have a detrimental influence on child labour.

Data and Methodology

This research is conducted in order to explore the interrelationship between political instability and child labour in developing countries. This chapter deals with the model specifications, variables and their descriptions, data sources, construction of the variables and econometric estimation.

Data

This study has collected the data from WDI (2016), WGI (2017) for the 53 developing economies. The child labour data set contains child labour 5-14 years’ old children for the year 1994-2015. It has missing values. To fill the missing values linear interpolation technique is applied.

Model Specification

According to this research concern with the impact of political instability on child labor the model contains one endogenous variable and five exogenous variables. It is expressed in equation 1

$$CL = f (POLIN, INF, URBAN, GDP, TRADE) \text{ -----(1)}$$

The descriptions of these entire variables are in below:

i. **Child Labour**



Child labour is divided into two categories: a) all children engaged in economic activity between the ages of 5 and 11, and b) children engaged in non-light economic activity between the ages of 12 and 14, with "light work" operationally defined as economic activity that does not exceed 14 hours per week. b) Children who operate in hazardous conditions.

ii. **Political Instability**

Political instability is the likely hood of having demonstration, forms of valance, works going on strike or the possibilities of a coups it is also used in terms of weather the government may collapse or not. Political instability is a range from -2.5 to +2.5 where -2.5 indicate weak performance and +2.5 indicates strong performance.

iii. **Urbanization**

It is the explanatory variable in the model and measured as urbanization growth rate. In the literature the measure has been used by (Katos & Schulze, 2006) in panel data analysis and concluded that the negative relationship exists between urbanization and child labour. Woldehanna et al. (2006) discovered that metropolitan areas have a higher rate of child labour than rural areas. As a result, increased urbanization has a detrimental impact on child labour. In addition, Neumayer and Soysa (2005) discovered a negative link between urbanization and child labour. The unfavorable association between urbanization and child labour is postulated.

iv. **Inflation**

It is the explanatory variable in the model and measured as annual consumer prices in percentage. In the literature the measure has been used by (Bhalotra & Heady, 2003) in developing countries and concluded that the positive relationship between inflation and child labour. It is hypotheses that the positive relationship between inflation and child labour in our study.

v. **Gross Doemestic Product**

It is the explanatory variable in the model and measured as growth rate annual percentage. When economic growth of any country increases then the wage of the labour in the country also increases then the child labour reduces (Cigno et al., 2002). Child labour also decline in improve the income of the peoples in the country (Edmonds, 2005). It is hypotheses that the negative link between gross domestic product and child labour in our study.



vi. Trade

It is the explanatory variable in the model and measured as percentage of GDP. Most of studies explained that trade have dual effect on the child labor. (Cigno et al., 2002) found that the trade has positively affects the child labour. Dagdemir et al. (2010) explained that trade effects child labor negatively. Iram and Fatima, (2008) also concluded that there is positive link between child labor and trade means that child labor increases with the increase in trade. It is hypothesises that the positive or negative relation between trade and child labor.

Methodology

Both the panel unit root tests Levin et al. (2002) were used in the current study. The results show that the series is not stationary, implying that it has a time pattern and a few surprises. As a result, the results are fictitious and unreliable. As a result, the series will be stationary, and we will use that to analyze it. The methodology of this research is same like the technique of previous researches (For e.g., Ahmad et al., 2021; Saeed et al., 2014; Nadeem et al., 2021; Chiahti et al., 2021; Khan et al., 2021; Alvi et al., 2014; Khan, et al., 2019)

According to the Levin et al. (2002) unit root test assumed that common unit root processes while checking the unit root in the series. Levin test also followed the Augmented Dickey Fuller specification and equation in written as below.

$$\Delta Y_{it} = \alpha Y_{it-1} + \sum_{j=1}^J \beta_j \Delta Y_{i,t-j} + X'_{it} \delta + \varepsilon_{it} \quad (2)$$

In the above equation (2) Y_{it} is differenced term if the dependent variable in the panel data $\alpha = p-1$ which represents the unit root, p is the lag operator for Y_{it} which shows the increase and decrease in the number of cross sections and X' is the explanatory variable in model. Finally, there is assumed that t-stats are normally distributed frequency. Where Y_{it} is the differenced term of corresponding panel data series, $\alpha = p-1$, p is the lag order for Y_{it} that can rise and fall for cross sections and X' is the exogenous variable in the model.

There are some reasons or assumption for the usage of GMM which are as follow: “Small T, large N” panels, small time series and larger sample of cross-sections, single equation function linear model, the dependent side variable is dynamic variable which depend on its own lag, Independent variables are not strictly exogenous and correlated with previous and current insight of the error, unobserved heterogeneity suggesting by country fixed effect,



autocorrelation and heteroskedasticity within country' errors, but not across them.

It has long been established in the literature that the ordinary least square estimator will be biased in these situations; see, for example, Nerlove (1967) for a Monte Carlo study of the features of the bias of OLS estimation. Most large sample conclusions are backed up by traditional central limits theorems or presumed to come from general results on the asymptotic properties of GMM estimation (Nerlove, 1967). An additional way of leveraging the instant circumstances is presented by Hussain and Ashrafv (2021). Alvarez and Arellono (2003) provide large sample data for GMM estimates. Because the number of possible instruments employed by GMM estimators increases with T, as highlighted by Judson and Owen (1999), GMM estimators may underperform in samples with moderate and large T.

The model in question can be written as follows:

$$Y_{it} = Y_{it-1} + X_{it}B + u_{it}, t = 1, \dots, T, i = 1, \dots, N$$

In which Y_{it} and X_{it} indicate the dependent variable as well as $1 \times p$ vector of exogenous variables correlating to cross sectional component I in period t , B denotes the relating 1×1 $p \times 1$ parameter, and $u_{it} = u_i + e_{it}$ denotes the overall disturbance term ranging from individual effect u_i and an innovation e_{it} , and $u_{it} = u_i + e_{it}$ denotes the overall disturbance. We find multiple feasible moment restrictions under different assumptions on the disturbance process, which are exploited by the estimator. On the $p \times 1$ vector of explanatory variables, the suggested estimator differs under different exogeneity assumptions. According to Arellano and Bond (1991), the error term is distributed as follows:

$$U_i \sim IID(0, \sigma_u^2)$$

$$E_{it} \sim IID(0, \sigma_e^2)$$

A dynamic model in an equation is used in this investigation. The Generalized Method of Moments (GMM) is a commonly used estimate technique in dynamic models. To tackle the model's endogeneity problem, the technique utilized a variety of instrumental variables. The following is our proposed model.

Equation 6

$$CL = \beta_0 + \beta_{2it}POLIN + \beta_{3it}INF + \beta_{4it}URBAN + \beta_{5it}GDP + \beta_{6it}TRADE + u_{it} + e_{it}$$



CL is the dependent variable in equation (6), and explanatory factors such as GDP per capita, political instability, and urbanization are employed in these models as well. ϵ_{it} is the error term, while u_{it} is an unobserved country-specific impact.

It's difficult to apply the punitive ordinary least square (OLS) estimator with fixed and random effects. By first differentiating the aforementioned equations, Arellano and Bond (1991) solve this problem. This eliminates impacts that are peculiar to a certain country.

This study has applied Housman test, which is used to detect the endogeneity problem in the variables of the regression model which as follow.

Equation 4.7

$$CL = \beta_0 + \beta_{2it}POLIN + \beta_{3it}INF + \beta_{4it}URBAN + \beta_{5it}GDP + \beta_{6it}TRADE + u_{it} + \epsilon_{it}$$

The Sargan test is used to determine the validity of instrumental variables in this study. It's a test of the over-identification limitations. The Sargan test is used to determine whether the instrumental variables are uncorrelated to a collection of residuals, and hence whether they are acceptable, healthy instruments. The instruments pass the test; they are valid by this criterion if the null hypothesis is statistically confirmed (that is, not rejected). This test's hypothesis is as follows:

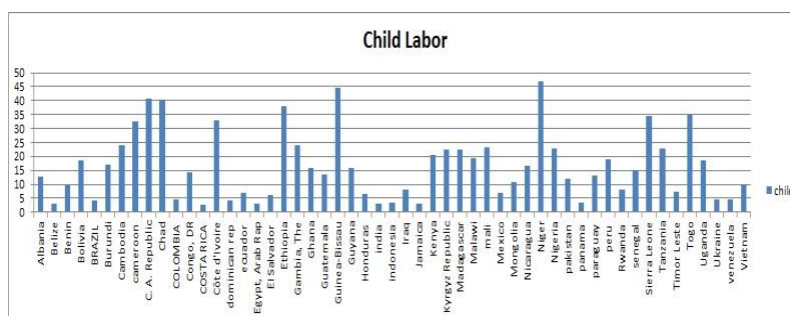
$$H_0 = \text{Instruments are valid}$$

$$H_1 = \text{Instruments are not valid}$$

Descriptive Analysis

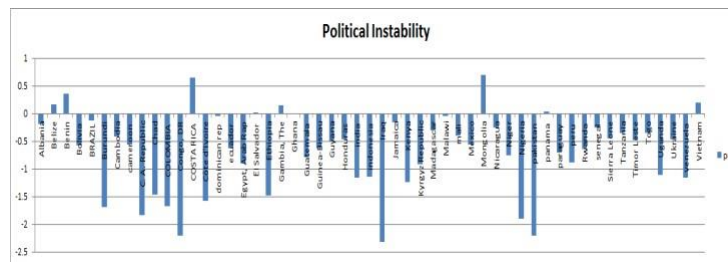
We have synthesized the data for 52 developing countries from different sources. The data has been expressed in figure.

Figure:1 Graphical Expression of Average child labour



The Figure 1 shows the child labour in 53 developing economies during 2003-2015. It represents the graphical view of the child labour in 53 developing countries during 2000-2015. The highest child labour is observed in Niger. The minimum age of children for work is 14 years but due to the poor economic conditions most of the families are often forced to make their children work. The second highest child labour is observed in Guinea Bissau. The lowest average child labour was observed in Costa Rica. Costa Rica has made significant advancement in reducing the child labour. Costa Rica is the country where the situation of children is best.

Figure: 2. Graphical Expression Average Political Instability



The Figure 2 shows the political instability in 53 developing economies during 2000-2015. It represents the graphical view of the political instability in 53 developing countries during 2000-2015. The highest political instability is observed in Iraq. All most developing countries face the political instability. It is the mean reason of these countries remaining under developed. The second highest political instability is observed in Pakistan. The lowest political instability was observed in Mongolia. Magnolia has made significant advancement in reducing the political instability.

Empirical Results

Results and discussion

This study main objective is to study the impact of political instability on child labour in developing countries. In this chapter we used Generalized Method of Movement (GMM) for empirical estimation. Summary statistics of all variables as their total observations of all variables which are used for data analysis. We isolate the data of child labour for fill the missing values of the child labour data. Result and discussion portion is the same like the researchers (i.e., Malik et al., 2015; Shah et al., 2020; Jamil et al., 2014; Ullah et al., 2021; Alvi et al., 2014; Alvi, et al., 2017).



Model

This study analysis the impact of political instability on child labour in developing countries for panel of 53 developing countries. Levin et al., (2002) panel unit root test for all variables show that all series are stationary at level and no co-integration analysis is necessary. Therefore, we proceed directly to the GMM estimation and applied the DynamicPanel Data Generalized Method of Moments on the annual data period from 2000 to 2015. Child labour is use as dependent variable and political instability, inflation, trade, urbanization and gross domestic product are use as independent variable in the model.

Table: 1. Results of GMM

Variable	Coefficient	T-Statistics	Prob
POLIN	1.534037***	12.17	0.000
CPI	0.0982952***	30.21	0.000
URBAN	-7.813***	-13.05	0.000
GDPG	-0.0633868***	-18.95	0.000
TRADE	0.0709859***	19.09	0.000
Sargan test	1.0000	J-S 46.35862	1.0000*

*Indicates significance at the 10% level, ** indicates significance at the 5% level, ***indicates significance at the 1% level, *Sargan test j-statistics prob.>0.05

The above results of this estimation are in the majority cases in conformity with the economic literature given that, among six coefficients, all are statistically significant with the threshold of 1%, 5% and 10% and their signs are in conformity with the theories. Indeed, the lagged value of child labour acts positively on the current level of child labour. This result means that if the child labour at year T-1 increases, then the child labour at the year T increases also and reciprocally.

Additionally political instability and child labour indeveloping countries have positive and statistically significant relation and follow the theory. Adaptation of some polices can control the political instability and then child labourcould be reduced. Inflation and child labour have positive and very significant relation fordeveloping economies and results follow the theory.

Various researchers concluded the possitive relation among health, economic ups and down and the child labour such as (Bandara et al., 2015; Dillon, 2013). In the light of these conclusions, we mayconclude that goods basket high prices positively affect the child labour. In that case theremay be households have the only option of sending their children in the market for work. Moreover, due to labour market imperfection in frequently developing countries, theentrepreneur cause of more child labour during the high food prices periods (Basu & Van,1998; Bhalotra & Heady, 2003).

GDP and child labour have negative and very significant relation in developing countries. The result is supported by number of studies. Additionally, trade has strongly significant



and positive relation with child labour in developing countries. Most of the studies explained that trade have dual effect on the child labour. Cigno et al. (2002) has stated that trade positively effects the child labour. The effects of trade in our study have also positive. Furthermore, urbanization also has the strongly significant and negative link with the child labour. Results show the higher effect of urbanization on child labour and follow the theory. Katos (2006) concluded the negative link between urbanization and child labor.

Controlling Endogeneity

To detect endogeneity problem, we have applied the houseman test. Firstly, we regress endogenous variable on exogenous variable in order to get the predicted values of the dependent variable as equation.

$$CL = \beta_0 + \beta_{2it} POLIN + \beta_{3it} INF + \beta_{4it} URBAN + \beta_{5it} GDP + \beta_{6it} TRADE + u_{it}$$

Now we Regress original equation by including the predictor or estimated values of the dependent variable as above equation.

Table:2 Hausman Test Results

Test static	Probability
Chi-square	0.0000

Results indicate the strongly statistically significance of test at 5 % level and confirms the existence of endogeneity in the model. So, we used DPDGMM (Dynamic Panel Data generalized method of moment) to remove the endogeneity problem.

Income Based Disaggregated Analysis

This section has provided the analysis to evaluate the impact of political instability on child labour on the basis of income level by using the econometric techniques panel unit root and DPDGMM on the panel of 53 developing economies over the period of 2000 to 2015. Classification of developing economies on the basis of income level is conducted according to the specification of World Bank (2015) (see detail in appendix-A). In our study, from the panel of 53 developing economies, the countries on the basis of income levels are classified as follows:

Low Income Countries:

- I. Lower Middle-Income Countries:
- II. Upper Middle-Income Countries:
- III. High Income Countries:



This study has merged the low and lower middle-income countries as well as has merged the data of upper middle- and high-income countries.

Low+ lower middle-income countries=33(low-income countries)

Upper middle + high income countries= 20 (high income countries)

Empirical Results for child labour and political instability for Low Income Countries (Model 1)

Model (1) presents the effect of child labour on political instability in low-income countries.

$$CHL_{i,t} = \alpha_0 + \alpha_1 POLEN_{i,t-1} + \alpha_2 CPI_{i,t} + \alpha_3 GDP_{i,t} + \alpha_4 URBN_{i,t} + \alpha_5 TRD_{i,t} + \epsilon_{i,t} \dots (1)$$

i= 1, 2... ..53: Country i.

t= 1, 2... 16: Year t.

The results of the estimation of model (1) are summarized in table 3.

Table: 3. GMM Results for child labor and political instability (Low Income Countries)

Variables	Coefficient	T-statistics	Prob
POLEN	3.401159***	11.49	0.000
CPI	0.0532457***	16.84	0.000
URBN	-0.1647286	-0.29	0.774
GDP	-0.1366198***	-18.94	0.000
TRD	0.0342521***	10.14	0.000

*Indicates significant at the 10 % level, **indicates significant at the 5% level and ***indicates significant at the 1% level.

The results of this low-income countries estimation are in the majority cases in conformity with the economic literature given that among six coefficients, five are statistically significant with the threshold of 1% their signs are in conformity with the theories.

Political instability has positive and statistically significant relationship with child labour in developing countries and follow the theory. Adaptation of some polices control the political instability the child labour should be reduce. Inflation has possitive and statistically significant relation with child labour in developing countries and follow the previous studies results. Urbanization has significant and negative impact on the child labour and follow the theories. Gross domestic product (GDP) has the negative and statistical relationship with child labour. The results are supported by number of studies. Trade has the strongly significant and positive relation with child labour in developing countries and results follow the theory.

Empirical Results for Child Labour and Political Instability for High Income Countries(Model 2)

Model (2) presents the effect of financial development and other variables on the public



investment in low-income countries.

$$CHL_{i,t} = \alpha_0 + \alpha_1 POLEN_{i,t-1} + \alpha_2 CPI_{i,t} + \alpha_3 GDP_{i,t} + \alpha_4 TRD_{i,t} + \alpha_5 URBAN_{i,t} + \epsilon_{i,t} \dots (2)$$

i= 1, 2... ..53: Country i.

t= 1, 2... 16: Year t.

The results of the estimation of model (2) are summarized in table 4.

Table: 4 GMM Results for child labor and political instability (high income Countries)

Variables	Coefficient	T- statistics	Prob
POLEN	1.534037*	1.74	0.081
CPI	0.0982952***	6.69	0.000
URBAN	-7.813***	-4.17	0.000
GDP	-0.0633868***	-3.06	0.002
TRD	-0.0709859***	-7.13	0.000

*Indicates significant at the 10 % level, **indicates significant at the 5% level and ***indicates significant at the 1% level.

The results of this high-income countries estimation are in the majority cases in conformity with the economic literature given that among six coefficients, all are statistically significant with the threshold of 1% and their signs are in conformity with the theories. Political instability and child labour has the positive and very significant relation in developing countries and follow the theory. Inflation and child labour has positive and very significant relation for developing economies and according to the theory. Urbanization has strongly significant and the negative relation with child labour and results follow the theory. Gross domestic product (GDP) and child labour has the negative and very significant relation. The results are supported by number of studies. Trade is strongly significant and negatively related with child labour in developing countries. Most of the studies explained that trade has dual effect on the child labour. This study results follow the Cigno et al. (2002) results mean that increase in trade to decrease in child labour in highly income countries.

Conclusion

The man objective of this research paper is to study the impact of political instability on child labour in developing economies. The study of these relationships has been conducted a panel of 53 developing countries over the period 2000 to 2015. I have applied Panel Unit Root Test, Housman Test and GMM (Generalized Method of Movements) Techniques. The above discussion of results of the study model 1 shows that the political instability has positive impact on child labour in the developing economies means that increase in political instability is tends to increase in child labour. the urbanization has negative impact on child labour in developing countries, means that increase in urbanization is tends to decrease in child labour because when the peoples shift in urban areas then their income increase due



to employment opportunities in urban areas then they send their children in schools for education then the child labour decrease in the developing economics and the living standard also increase. Gross domestic product is also having negative impact on the child labour because when the GDP of the developing countries increase then the income of the country peoples is also increase then they also send their children in schools instead of labour market. We also found that inflation have positive impact on the child labour. The trade has positive impact on the child labour. The model results are according to a general theory.

In high income countries trade have negatives relation with child labour but in low-income countries trade effects positive child labour but the remaining variable have same relationship with child labour

Policy Recommendation

Most of the developing countries face political instability. Political instability main cause of the child labour. Developing countries takes the step to control the political instability the child labour automatically reduces. If Government wants to reduce child labour in developing countries, then government should take strictly step to control the inflation in developing countries. Developing countries, the most of the industry use child labour for his production due to cheaper so if government wants to reduce child labour, then government imposes high fine on those industrialists that uses child labour in his industry. Government takes steps to increase the national income of the country. If the national income increases then per capita income of the developing countries people increases. So, this is also beneficial for reduction in child labour in developing countries. Government increases the expenditure on health and education in developing countries.

References

- Abdullahi, I. I., Noor, Z. M., Said, R., & Baharumshah, A. Z. (2016). Does poverty influence prevalence of child labour in developing countries?. *International Journal of Economics and Financial Issues*, 6(1), 7-12.
- Ab-Rahim, R. (2021). Trade and Child Labour in SAARC Countries. *Studies of Applied Economics*, 39(1), 1-20.
- Ahmad, A. (2012). Poverty, Education and Child Labour in Aligarh City-India. *Studies on Home and Community Science*, 6(3), 165-172.
- Ahmad, Z., Alvi, A. K., & Ahmed, N. (2021). Impact of Organizational Trust on Process Innovation Through the Mediating Role of Knowledge Creation Practices. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(10), 1492-1505.
- Alvarez, J., & Arellano, M. (2003). The time series and cross-section asymptotics of dynamic panel data estimators. *Econometrica*, 71(4), 1121-1159.
- Alvi, A. K., & Jabeen, Z. (2017), Impact of Job Stress on Intention to Leave in Telecommunication Sector of Lahore, *AJSS*, 1(1), 01-09.
- Alvi, A. K., Kahn, M. A., Ahmed, A. A., & Zulfiqar, M. (2014). A study of employee compensation and employee job engagement on banks of Lahore, Pakistan. *Science International (Lahore)*, 26(5), 2411-2414.



- Alvi, A.K., Siddique Gondal, M. A., Adnan Ahmed, A., & Mehmood Chaudhry, S. (2014). Employee Empowerment and Employee Job Engagement, Case Study of Banks In Lahore. *Science International*, 26(5), 2439-2342.
- Ansell, N., Barker, J., & Smith, F. (2007). UNICEF 'Child Poverty in Perspective' Report: a view from the UK. *Children's Geographies*, 5(3), 325-330.
- Aqil, N., BayBay, H., Moustaide, K., Douhi, Z., Ellouidi, S., & Mernissi, F. Z. (2018). A prospective study of tinea capitis in children: making the diagnosis easier with a dermoscope. *Journal of Medical Case Reports*, 12(1), 1-7.
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The review of economic studies*, 58(2), 277-297.
- Baker, M., Gruber, J., & Milligan, K. (2008). Universal child care, maternal labor supply, and family well-being. *Journal of political Economy*, 116(4), 709-745.
- Bandara, A., Dehejia, R., & Lavie-Rouse, S. (2015). The impact of income and non-income shocks on child labor: Evidence from a panel survey of Tanzania. *World Development*, 67, 218-237.
- Basu, K., & Van, P. H. (1998). The economics of child labor. *American Economic Review*, 412-427.
- Becchetti, L., & Trovato, G. (2002). The determinants of growth for small and medium sized firms. The role of the availability of external finance. *Small Business Economics*, 19(4), 291-306.
- Bhalotra, S., & Heady, C. (2003). Child farm labor: The wealth paradox. *The World Bank Economic Review*, 17(2), 197-227.
- Bhat, A. N., Landa, R. J., & Galloway, J. C. (2011). Current perspectives on motor functioning in infants, children, and adults with autism spectrum disorders. *Physical Therapy*, 91(7), 1116-1129.
- Bussmann, M., Scheuthle, H., & Schneider, G. (2006). *Trade liberalization and political instability in developing countries. Programming for Peace*. Springer, Dordrecht.
- Chiahti, M. F., Shokat, W., Alvi, A. K., Afzal, A., Afzal, M., Irum, S., ... & Kaur, P. (2021). Factors Affecting Bank-specific and Macroeconomic Profitability Determinants of Islamic and Conventional Banks in Pakistan. *Global Business & Management Research*, 13(2), 57-73.
- Cigno, A., Rosati, F. C., & Guarcello, L. (2002). Does globalization increase child labor?. *World Development*, 30(9), 1579-1589.
- Dagdemir, O., & Acaroglu, H. (2010). The effects of globalization on child labor in developing countries. *Business and Economic Horizons (BEH)*, 2(1232), 37-47.
- Dillon, A. (2013). Child labour and schooling responses to production and health shocks in northern Mali. *Journal of African Economies*, 22(2), 276-299.
- Doytch, N., Thelen, N., & Mendoza, R. U. (2014). The impact of FDI on child labor: Insights from an empirical analysis of sectoral FDI data and case studies. *Children and Youth Services Review*, 47, 157-167.
- Duryea, S., Lam, D., & Levison, D. (2007). Effects of economic shocks on children's employment and schooling in Brazil. *Journal of development economics*, 84(1), 188-214.
- Edmonds, E. V. (2005). Does child labor decline with improving economic status?. *Journal of Human Resources*, 40(1), 77-99.
- Emerson, P. M., & Souza, A. P. (2003). Is there a child labor trap? Intergenerational persistence of child labor in Brazil. *Economic Development and Cultural Change*, 51(2), 375-398.
- Ersado, L., & Gignoux, J. (2017). Egypt: inequality of opportunity in education. *Middle East Development Journal*, 9(1), 22-54.



- Fatima, A. (2017). Child labour in Pakistan: Addressing supply and demand side labour market dynamics. *The Economic and Labour Relations Review*, 28(2), 294-311.
- Goldstone, J. A., Bates, R. H., Epstein, D. L., Gurr, T. R., Lustik, M. B., Marshall, M. G., ... & Woodward, M. (2010). A global model for forecasting political instability. *American Journal of Political Science*, 54(1), 190-208.
- Halonen, T., & Liukkunen, U. (2021). *International Labour Organization and global social governance*. Springer Nature.
- Hussain, A., & Ashraf, M. F. (2021). The Interrelation between Political Instability and Child Labour in Developing Countries. *Research Journal for Societal Issues*, 3(1), 01-27.
- ILO. (2017). *Child labour in India*. <https://doi.org/10.1177/001955611979035>.
- Iram, U., & Fatima, A. (2008). International trade, foreign direct investment and the phenomenon of child labor: The case of Pakistan. *International Journal of Social Economics*, 35(11), 809-822.
- Jamil, M. F., Alvi, A. K., Tariq, R., & Saeed, M. (2014). Relationship of women autonomy and gender equality in UMT Lahore, Pakistan. *Sci. Int.(Lahore)*, 26(5), 2477-2479.
- Jensen, P., & Nielsen, H. S. (1997). Child labour or school attendance? Evidence from Zambia. *Journal of population economics*, 10(4), 407-424.
- Judson, R. A., & Owen, A. L. (1999). Estimating dynamic panel data models: a guide for macroeconomists. *Economics Letters*, 65(1), 9-15.
- Khan, M. Y., Alvi, A. K., & Chishti, M. F. (2019). An Investigation on The Linkages Between Poverty and Education: A Statistical Review. *Gomal University Journal of Research*, 35(1), 44-53.
- Khan, S. U., Ali, A., Khan, A., Khan, M. U., Alvi, A. K., & Khan, A. U. (2021). Organizational Politics as Mediator in Linking Psychological Empowerment and Employees' performance In Educational Context. *Elementary Education Online*, 20(2), 1232-1238.
- Kis-Katos, K., & Schulze, G. G. (2006). Where child labor supply finds its demand. *JEL Classification*, 8-I3.
- Kucera, D. (2002). Core labour standards and foreign direct investment. *Int'l Lab. Rev.*, 141, 31.
- Kumar, A., & Saqib, N. (2017). School absenteeism and child labor in rural Bangladesh. *The Journal of Developing Areas*, 51(3), 299-316.
- Levin, A., Lin, C. F., & Chu, C. S. J. (2002). Unit root tests in panel data: asymptotic and finite-sample properties. *Journal of Econometrics*, 108(1), 1-24.
- Mahmod, N. A. K. N., Salleh, M. C. M., Muhammad, A. A., & Mohd, A. (2016). A study on child labour as a form of child abuse in Malaysia. *International Journal of Social Science and Humanity*, 6(7), 525-530.
- Malik, A., Alvi, A. K., & Arif, S. (2015). Work Related Stress in Banks Operating in Lahore. *Sci. Int.(Lahore)*, 27(5), 4629-4633.
- Miller, P. (2021). Gender and Generation in Thinking with Patriarchy. In *Gender and Generations: Continuity and Change*. Emerald Publishing Limited.
- Muhammad, T., & Srivastava, S. (2020). Why rotational living is bad for older adults? Evidence from a cross-sectional study in India. *Journal of Population Ageing*, 1-18.
- Nadeem, M. A., Alvi, A. K., & Rehman, K. U. (2021). The Relationship of Proactive Personality with The Organizational Citizenship Behavior: Intervening Role of Thriving at Work. *Gomal University Journal of Research*, 37(2), 134-141.
- Nerlove, M. (1967). Experimental evidence on the estimation of dynamic economic relations from a time series of cross-section. *The Economic Studies Quarterly*, 18(3), 42-74.
- Neumayer, E., & De Soysa, I. (2005). Trade openness, foreign direct investment and child



- labor. *World Development*, 33(1), 43-63.
- Patrinos, H. A., & Psacharopoulos, G. (1997). Family size, schooling and child labor in Peru—An empirical analysis. *Journal of population economics*, 10(4), 387-405.
- Peek, C. W., Alston, J. P., & Lowe, G. D. (1978). Comparative evaluation of the local police. *Public Opinion Quarterly*, 42(3), 370-379.
- Psacharopoulos, G. (1997). Vocational education and training today: challenges and responses1. *Journal of vocational education and training*, 49(3), 385-393.
- Ray, R. (2000). Child labor, child schooling, and their interaction with adult labor: Empirical evidence for Peru and Pakistan. *The World Bank Economic Review*, 14(2), 347-367.
- Saeed, M., Alvi, A. K., Jamil, M., & Tariq, R. (2014). Work Life Balance and Charismatic Leadership In Educational Sector of Pakistan. *Sci. Int.(Lahore)*, 26(4), 1847-1850.
- Sahin, S., Arseven, Z., & Kiliç, A. (2016). Causes of Student Absenteeism and School Dropouts. *International Journal of Instruction*, 9(1), 195-210.
- Segnon, A. C., Totin, E., Zougmore, R. B., Lokossou, J. C., Thompson-Hall, M., Ofori, B. O., ... & Gordon, C. (2021). Differential household vulnerability to climatic and non-climatic stressors in semi-arid areas of Mali, West Africa. *Climate and Development*, 13(8), 697-712.
- Shah, N. H., Khan, H., Alvi, A. K., & Khan, H. Z. (2020). The Impact and Level of Cultural Values and Ethically-Minded Consumer Behavior on the Consumer-Based Brand Equity of Nestle: Evidence from Pakistani Cultural Context. *Ilkogretim Online-Elementary Education Online*, 19(3), 2579-2595.
- Tariq, B., Sarwar, S., Shafique, O., Abbasi, F. A., & Arooj, S. N. (2020). Does Trade Liberalization Reduce Child Labour In Saarc Countries?. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 9154-9174.
- Ullah, W., Alvi, A. K., & Soomro, M. A. (2021). Relationship of Shyness with Life Satisfaction: The Mediating Role of Career Success. *Gomal University Journal of Research*, 37(2), 154-165.
- VandenBerg, K. A. (2007). Individualized developmental care for high risk newborns in the NICU: a practice guideline. *Early Human Development*, 83(7), 433-442.
- Wang, Y., Min, J., Khuri, J., & Li, M. (2017). A systematic examination of the association between parental and child obesity across countries. *Advances in Nutrition*, 8(3), 436-448.
- WDI. (2016). *World Development Indicator*, <http://www.data.worldbank.org>.
- WGI. (2017). *Worldwide Governance Indicators- World Bank Data*, [worldbank. https://datacatalog.worldbank.org/dataset/worldwide-governance-indicators](https://datacatalog.worldbank.org/dataset/worldwide-governance-indicators)
- Woldehanna, T., Tefera, B., Jones, N., & Bayrau, A. (2005). *Child labour, gender inequality and rural/urban disparities*. Young Lives Save the Children UK
- World Bank Group. (2016). *World development report 2016: Digital dividends*. World Bank Publications.
- Zafar, Z., Sarwar, I., & Haider, S. I. (2016). Socio-Economic and Political Causes of Child Labor: The Case of Pakistan. *Global Economics Review*, 1(1), 32-43.



Appendix A

LIST OF DEVELOPING ECONOMIES

Sr.	Countries	Sr.	Countries	Sr.	Countries
1	Albania	19	Ethiopia	37	Nicaragua
2	Belize	20	Ghana	38	Niger
3	Benin	21	Gambia, the	39	Nigeria
4	Bolivia	22	Guatemala	40	Pakistan
5	Brazil	23	Guinea-Bissau	41	Panama
6	Burundi	24	Guyana	42	Paraguay
7	Cambodia	25	Honduras	43	Peru
8	Cameroon	26	India	44	Rwanda
9	C. A. Republic	27	Indonesia	45	Senegal
10	Chad	28	Iraq	46	Sierra Leone
11	Colombia	29	Jamaica	47	Tanzania
12	Congo, DR	30	Kenya	48	Timor Leste
13	Costa Rica	31	Kyrgyz Republic	49	Togo
14	Côte d'Ivoire	32	Madagascar	50	Ukraine
15	Dominican Rep	33	Malawi	51	Uganda
16	Ecuador	34	Mali	52	Venezuela
17	Egypt, Arab Rap	35	Mexico	53	Vietnam
18	EI Salvador	36	Mongolia		

Appendix B

Arellano-Bond dynamic panel-data estimation Number of obs = 653
 Group variable: id Number of groups = 53
 Time variable: year Obs per group: min = 9
 avg = 12.55769 max = 13
 Number of instruments = 116 Wald chi2(6) = 1.00e+06



childlab	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
childlab						
L1.	.6474258	.0060219	107.51	0.000	.6356232	.6592284
cpi	.0532457	.0031609	16.84	0.000	.0470503	.059441
trade	.0342521	.0033763	10.14	0.000	.0276347	.0408695
GDPs	-.1366198	.0072126	-18.94	0.000	-.1507562	-.1224833
urban	-.1647286	.5725109	-0.29	0.774	-1.286829	.957372
polinst	3.401159	.2960048	11.49	0.000	2.821	3.981318
_cons	6.93503	2.404015	2.88	0.004	2.223247	11.64681

Warning: gmm two-step standard errors are biased; robust standard errors are recommended.

Instruments for differenced equation GMM-type: L(2/).childlab Standard:
 D.cpi D.trade D.gdpg D.urban D.polinst cpi trade GDPs urban polinst

APPENDIX D

Appendix

Table 1. Descriptive Statistics of Variables

Variables	Observations	Mean	Std.Dev	Min	Max
CHILDLAB	334	13.12126	12.31113	0.3	62.6
POLIN	787	-0.679758	0.789796	-3.18	1.11
CPI	840	10.32728	27.50019	-35.83668	513.9069
URBAN	848	3.123561	1.521744	-0.9489165	11.54665
GDPG	845	4.609292	4.86851	-36.69995	54.15778
TRADE	828	72.55083	32.50886	20.96405	206.7686

Table: 2. Panel Unit Root Results

Variables	At level
	Levin, Lin, Chu



	Statistics	Prob.	Level
CHILDLAB	-7.6710	0.0000	I(0)
POLIN	-12.3212	0.0000	I(0)
CPI	-29.7067	0.0000	I(0)
URBAN	13-5573	0.0000	I(0)
GDPG	23-8584	0.0000	I(0)
TRADE	-11.8130	0.0000	I(0)

Note: * indicates that variables are significant at 5 %

