PalArch's Journal of Archaeology of Egypt / Egyptology

DOES TRADE LIBERALIZATION REDUCE CHILD LABOUR IN SAARC COUNTRIES?

Bilal Tariq[1], Shakeel Sarwar[2], Owais Shafique[3], Faraz Ahmad Abbasi[4], Syeda Nawazish Arooj[5]

[1]Department of Economics. COMSATS University Islamabad, Vehari Campus Pakistan.
Faculty of Economics and Business, Universiti Malaysia Sarawak, Malaysia.
[2]School of Business, Management and Administrative Sciences,
The Islamia University of Bahawalpur, Pakistan
[3]School of Business, Management and Administrative Sciences,
The Islamia University of Bahawalpur, Pakistan
[4]Department of Management & MIS, College of Business Administration, University of Ha'il Saudi Arabia
[5]Capital University of Science and Technology, Islamabad
Email: [4]faraz.a.abbasi@gmail.com; f.abbasi@uoh.edu.sa, [5]mailto:urooj_syed3000@yahoo.com

Bilal Tariq[1], Shakeel Sarwar[2], Owais Shafique[3], Faraz Ahmad Abbasi[4], Syeda Nawazish Arooj[5], Does Trade Liberalization Reduce Child Labour In Saarc Countries? – Palarch's Journal of Archaeology of Egypt/Egyptology 17(6) (2020). ISSN 1567-214X.

Keywords: Child Labour, Trade Openness, Selection Effect, Scale Effect JEL classification F1, J4, J20

ABSTRACT

In recent years, there has been a proliferation of empirical work on child labour. Nevertheless, these studies tended to limit their analysis on the trade in homogeneous goods; this article aims to study the role of selection of variety or product heterogeneity in child labour demand for the South Asian Association for Regional Cooperation Countries (SAARC) during the period from 1999 to 2013. In the context of trade in homogeneous and heterogeneous goods, the relationship between child labour and the effects of trade breaks down into selection, scale and technique effects. The panel data method is employed to justify the spatial and temporal dimensions of the research. The estimation procedure of this study consists an exposure of selection, scale and technique effects. The results imply that the opening of trade alone will not reduce child labour if it is not accompanied by supportive measures, namely the trade-related effects of child labour, in particular the effects of scale and technique. Therefore, this study suggests that trade liberalization through trade-induced effects would be the way to reduce the incidence of child labour in emerging markets.

INTRODUCTION

Globalization have accelerated the spread of trade liberalization in such ways that countries have only one viable option: either to keep opening their

economies to take advantage of the prospects of prosperity and increased incomes with trade liberalization; or to take the other option which is too remain as a relatively closed economy and submit to a fate of marginalization and reduced incomes (Levitt, 2009; Steger, 2009). The second option would be unpalatable to many governments; more so given the expected benefits. One such benefit is the hope of an eventual end to child labour (Edmonds, 2010). Nevertheless, child labour persists; and as such, the debate whether trade liberalization and globalization hamper, ameliorate or reduce child labour lingers. (White, 1996; Edmonds and Pavcnik, 2005c; Grossmann and Michaelis, 2007; Kis-Katos, 2007; Hillman, 2008). In this paper, we would like to suggest a new way of thinking about how trade liberalization would hamper incidences of child labour.

The causes of child labour are complex, but the main motivation for child labour lies primarily in both supply and demand, with social and cultural factors contributing. It is believed that adult and child labour are close substitutes (Basu and Van, 1998**),** and the demand of child labour is dictated by the firms' economic factors, with children working at lower wages in every area than adults a key incentive (Hindman, 2011). However, this justification for the use of child labour is unacceptable in civilized and developed countries, because child labour robs happiness and enjoyment in childhood (Nieboer, 2011). The issue of child labour has received much attention in the modern economy due to globalization (Hafner-Burton, 2013).

The International Program for the Elimination of Child Labour (2012) states that around 11% of children aged 5 to 14 are still globally active and the percentage of working children is higher in the countries of South Asia than in other Asian countries. The phenomenon of child labour in these countries becomes complex with the emergence of new business scenarios. Trade embargoes such as trade sanctions, outright prohibitions and boycotts are popular remedies to reduce child labour. However, these instruments can have unintended consequences for poor countries. Trade inhibiting actions in any form make relatively poor developing countries even poorer. A trade sanction is an anti-globalization instrument; in fact, anti-globalization sentiments are most common in rich countries and poor countries are influenced by the policies of the world's elites. Bhagwati (2001) states that the complex problems of an economy cannot be solved by sanctions; such anti-globalization sentiments destroy industries in poor countries (Wood, 1995) and transform poor countries into poor countries (Hameed and Nazir, 2009). Conditions are getting worse and poor countries are becoming dangerous for children (Emerson and Souza, 2011). Bhagwati (2001) suggests that global problems such as child labour can only be solved through globalization, while Jafarey and Lahiri (2002) claim that the only cure for child labour is economic tools (i.e., trade liberalization).

Child labour is a persistent problem for developing countries and economic liberalization has caused concerns in these countries. Economically, growth and development have united developing countries through the path of trade liberalization into an interdependent unit, where some children are engaged in production and services (Edmonds and Pavcnik, 2006_a). The literature on trade and child labour suggests that the demand for child labour goes hand in hand with the demand for trading goods; this can also be due to the strong correlation between trade and income (Romer and Frankel, 1999). The general consensus is that higher levels of trade are associated with higher income levels, which are not necessarily evenly distributed; the comfort of trade usually benefits the rich (Collier and Dollar, 2002).

In light of earlier studies, research into child labour is rooted in, on the one hand, the decision of households on the supply of child labour (Fors, 2012). Empirical studies, on the other hand seem limited. Studies such as Edmonds and Pavcnik (2005_a), Dinopolous and Zhao (2007), Kis-Katos (2007) and Estevez (2011, 2014) investigate the question of child labour on the demand side. Nevertheless, the aforementioned studies often assumed that children are involved in the production of homogeneous goods and that trade in homogeneous products influences the demand for child labour in exporting countries.

With this in mind, economists study the relationship between trade and child labour in the context of a perfectly competitive market based on the frameworks of Stolper-Samson and Heckscher-Ohlin (Edmonds and Pavcnik, 2005_b; Edmonds, 2010). The unintended consequences of the trade in aggravated child labour occur because of the abundance of unskilled labour in a simple setting by Hecksher-Ohlin and the effect of trade changes in relation to factor prices in the Stolper-Samuelson position (Edmonds and Pavcnik, 2005_b). It is therefore difficult to see how trade actually influences child labour due to the changing demand for unskilled workers. In another study, Edmonds and Pavcnick (2005a) find that trade has consequences for multinational companies and that these companies are positively associated with the incidence of child labour in developing countries.

Emerson and Souza (2011) on the other hand, argue that trade liberalization combats problems of child labour and converts local restrictions into a global restriction. Child labour therefore offers no comparative advantage for foreign companies; consequently, these companies eliminate these incapacitated and incompetent employees (Estevez, 2010). Wood and Ridao-Cano (1999) reformulate the comparative advantage of the Heckscher-Ohlin model into a skill-based model and discover that the demand for skilled labour increases due to trade openness. Similarly, Burstein and Vogel (2010) argue that a comparative advantage means that skilled workers must work in more skill-intensive sectors. Davis and Dingel (2014) confirm that qualified people are better paid in more attractive places. It is essential to emphasize that the Krugman and Obstfeld (2006) model predicts that a certain degree of extreme specialization will result in countries that always benefit from trade. Profits from trade generate resources in developing countries; therefore, as long as the income reaches the poor, trade is an effective tool to eradicate child labour (Dimova et al., 2015; Cigno, 2015).

Existing studies have investigated the link between trade and child labour in the trade in homogeneous goods (Ab-Rahim & Tariq, 2017). However, motivated by Krugman (1979), the novelty of our current study is we examine the issue of child labour in the context of a new trade theory by demonstrating the commercial effects of heterogeneous goods on child labour. Krugman states that increasing scale yields and product differentiation can be one of the reasons for trade between countries and can be a tool for comparative advantage (Feenstra, 2003). Krugman (1979) is developing a manageable approach to modelling trade with new assumptions, namely imperfect competition, increasing returns to scale and differentiated goods. The framework of the new trade theory states that international trade reduces the distortions associated with imperfect competition (Tariq and Ab-Rahim, 2016). In this sense, it would be interesting to investigate how the new trade theory affects child labour in developing countries. In other words, what are the trade-related effects of the number of companies and the volume of production on child labour? Tariq and Ab-Rahim (2016) suggest that

trade-caused effects (due to changes in income levels) can serve as an extension of the Krugman (1979) model to other trade-caused effects, including the scale effect (as due to the trade-induced effect of increased economic activity) and the selection effect (which some of the least productive companies will have to leave).

In view of the above discussion, this study examines the effect of trade openness on child labour using trade-induced selection, scale and technique effects of child labour in countries of the South Asian Association for Regional Cooperation (SAARC). The first contribution of this study deals with the effects of trafficking based on the Krugman (1979) framework and proposes an empirical framework to analyse the relationship between child labour and the variation in traffic on the demand side. The second contribution is to unravel the different new channels through which trade can influence child labour with the help of the effects of selection, scale and technique. The third contribution enriches the empirical evidence of the effects of trade and the child labour in the countries of South Asia.

The rest of this study is as follows. The following section provides theoretical motivation and empirical evidence on the issue of child labour and trade liberalization. The Methodology section provides an empirical context and describes the data used in the empirical section. The empirical results are presented and discussed in the following section, while the Conclusion section concludes the article and suggests future research directions.

LITERATURE REVIEW

The liberalization of trade in a developing economy is unfavourable; with increases in inefficiency and reduction of welfare to unorganized labour; it is likely to increase the relative return on unskilled labour and reduce the satisfaction of spending on skills and education. As a result, the rewards for child labour are increasing with a substitution effect and a greater supply of child labour (Doepke and Zilibotti, 2010). Trade openness does not increase the demand for child workers if children generally work in sectors that compete with imports or in the non-tradable segmented. Generally, sceptics of trade liberalization claim that free trade encourages countries to 'race to the bottom' (Singh and Zammit, 2004). A greater intensity of child labour can lower costs to give the country a competitive advantage over others. That is why all economies are confronted with this stimulus; More trade can lead to an increased incidence of child labour worldwide. Developing economies with tolerant labour standards, nominal wages and an abundant supply of unskilled workers, including child labourers, is considered a paradise for foreign investors (Doepke and Zilibotti, 2010; Khan et al., 2019).

Krugman (1991) states that if all industries of an economy are perfectly competitive, no substantial adjustment of work and selection of varieties is possible. In this case, industries systematically replace skilled workers with unskilled workers (Krugman, 2008; Abbas et al., 2020); thus the chances of child labour can be reduced by an increased demand for skilled workers. The consequences of marginal and unobserved changes make it difficult to detect the evolution of child labour. Similarly, Tariq and Ab-Rahim (2016) recommend that the comparative advantage can be changed by increasing the economies of scale and product differentiation. The concept of competitiveness in the context of Krugman (1991) is open to different interpretations.

In the context of Krugman (1980) for the industrial sector; the most striking feature of the increase in scale returns with trade liberalization results in a decrease in the total number of companies in the industry, although each of the remaining companies produces more than before (Chen et al., 2002). Trade increases the basket of consumption and enables consumers to use different types of local and imported goods. At the same time, when a country's income level rises due to trade openness, the country implements a stricter approach to child labour, resulting in increased activity to reduce child labour (Edmonds, 2007; Abbasi et al., 2020). The increasing scale under Krugman is prompting producers to hire more efficient and skilled workers to raise production levels. This framework can support the policy of eliminating child labour and discouraging child labour because producers want to produce more and extra units of labour by adults are not expensive due to scaling up croissants.

There are many reasons why openness to trade can help to improve the situation of child labour. One reason is that greater openness to trade implies an increase in trade flows, leading to an increase in the scale of total production. As a result, income levels rise, implying a stricter, policy for child labour that promotes improvement and reduces the intensity of child labour (Grootaer and Kanbur, 1995; Ahmad et al., 2018; Al-Kumaim et al., 2021). In addition, openness to trade can accelerate an influx or diffusion of more efficient techniques, thereby reducing the intensity of child labour. Consequently, greater openness to trade leads to a negative growth of child labour by keeping the other factors constant.

Based on previous studies, this study assumes that the scale effect induced by trade represents an expansion of industries through trade. Therefore, the scale effect in this analysis assumes that an increase (decrease) in the production scale is due to the expansion (contraction) to the production of goods with comparative advantage, as well as the expansion (contraction) of economies of scale. According to the theory, the overall scale effect of trade would increase child labour. According to Karl Marx's Das Kapital (1867), incidences of child labours is mainly due to the demand for labour (Edmonds, 2007). In this analysis, the direction of the scale effect on child labour must also be positive. In every economy an increase in trade openness increases the wealth of the country and this prosperity fluctuates national behaviour towards the improvement of the workforce (Karlan and Valdivia, 2011; Arshad et al., 2020; Ashraf et al., 2020). By keeping the scale effect and other determinants constant, the effects of technique refer to the reversal of child labour as a result of adjustments in the income due to trade. Assuming that child labour is unskilled and that income levels are linked to the intensity of trade, the effect of the labour-based technique of child labour or the effect of income diminishes child labour in the economy

Figure 1 shows that the impact of trade on the number of companies, the productivity of companies and the income level leads to trade-related effects of child labour, as assumed in the context of Krugman (1979). Figure 1 also shows that the impact of trade on child labour is the effects of scale, selection and technique caused by trade. In an open economy, foreign competition leads to a change in the number of domestic companies; this effect in the context of Krugman (1979) is known as a trade-driven selection effect. The selection effect is a route through which the productivity and level of income of countries can change as a result of trade openness, which can change the situation of child labour in the economy.

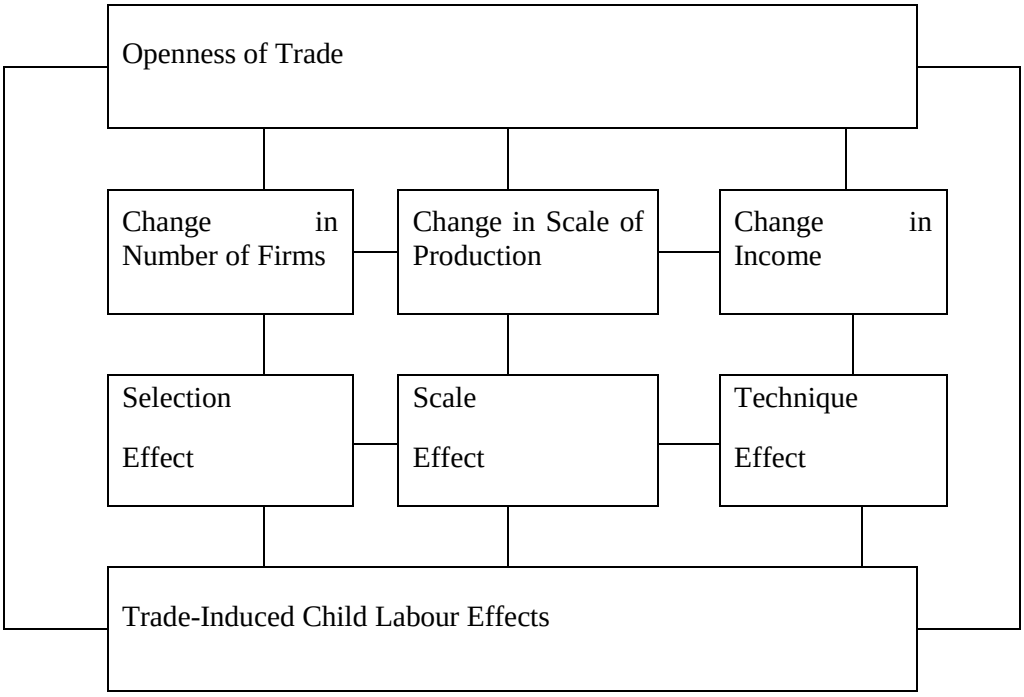

Figure 1: Trade Induced Child Labour Effects
Source: Tariq and Ab-Rahim (2014)

The dichotomy between trade and child labour suggests that trade is not detrimental for a country; however, child labour hinders the growth and accumulation of human capital and creates multi-generational imbalances in an economy (Edmonds, 2005c). A closer look at the empirical studies shows that child labour occurs in countries that trade more. Edmonds and Pavcnik (2006b) claim that improving economic activity through trade liberalization or globalization brings prosperity to countries; the results are amazing in terms of changes in child labour. In addition, Xu et al. (2015) and Davis and Voy (2007) also suggest a relationship between trade liberalization and child labour.

Davis and Voy (2007) find a negative link between child labour and being open to trade; the link is further supported by Dinopoulos and Zhao (2007). On the other hand, Kruger (2007) believes that the opening of trade has a negative effect on the incidence of child labour in Brazil. Marjit (2011) reports that Neumayer and Soysa (2005) find evidence that countries that trade more have less child labour. Edmonds and Pavcnik (2006) document a negative association between open trade and child labour in a transnational context, which is mainly due to the positive effect on open trade income (Balakrishnan et al., 2019; De Paoli and Mendola, 2015; Jabarullah et al., 2019). Kis-Katos (2007) investigates the impact of trade policy on child labour and offers empirical support for the association between child labour and trade; it suggests that greater openness in trade leads to less child labour (Kluttz, 2015). Iram and Fatima (2008) support Edmonds and Pavcnik (2005) and Ray et al. (2012), suggesting that the evidence for the role of trade in the incidence of child labour is not conclusive. The first study indicates that child labour is declining due to the income effect of trade in developing countries; on the other hand, he argues that child labour in emerging economies is increasing due to the effect of trade substitution. Xu et al. (2015) add that the search for cheap labour by companies in an open market has stimulated the demand for child labour in the export sectors.

An overview of theoretical and empirical studies suggests that trade affects child labour, depending on the type of effects caused by trade. The selection of child labours caused by trade and the scale effects deserve substantial theoretical and empirical attention because of a distinctive feature of the new trade theory. The current transnational analysis of child labours and openness highlights three points of view. Firstly, trade and child labour are correlated; secondly, a change in the number of companies has an impact on child labour, and finally, the expansion of an economy has an impact on child labour. Based on these studies, the traditional trade framework shows that international trade influences the economy and production scale and has an impact on child labour. The new trade theory speaks of product differentiation and increasing return on scale; the great thing about Krugman's (1979) setting is that it explains the effect of trade on a number of companies involved in the production of differentiated products in the country of origin and abroad. Under the Krugman's NTT (New Trade Theory) framework this article attempts to study the effects of trade-induced child labour.

METHODOLOGY

This study examines the most important SAARC countries, in particular Bangladesh, India, Pakistan, Nepal and Sri Lanka. Approximately 93% of the entire region is covered by these countries. Moreover, these particular SAARC countries are used because the database of these countries is well organized and reliable; other countries such as Afghanistan, Bhutan and the Maldives do not offer a reasonable comparative database (Zaman et al., 2013). The data set comes from the ILO, ILO-IPEC, UNICEF, World Development Indicators (WDI) and the UCW. This study uses the panel data technique (Baltagi, 2003; Green et al., 2008) to obtain general estimates of the least squares (GLS), so that the dimensions of the comparison refer to transversal units (countries in this study) and the temporary dimensions refer to the observation period that characterizes the transverse units over time. The panel data method is used to justify the spatial and temporal dimensions of the study. Two dimensions must be taken into account in this analysis: the cross-section (for example, countries) and the periods. By using panel data method, robust statistical conclusions can be corrected for both the correlations of model errors over time and for the heteroskedasticity between countries. The Hausman test confirms random effects in this study. Therefore, the regression coefficients are estimated using random effects. Arellano and Bover (1995) state that the combined ordinary least squares are less efficient in the case of the random effects estimator.

Measurement of Variables

Child Labour

There is no consistent measurement or interpretation of the legal age and working conditions of child labour in the countries; however, two basic categories are generally recognized in studies on child labour: economic activities and dangerous work. Child labour is inherently more difficult to measure than mere labour; sometimes excludes the necessary tasks that children perform as members of the household subject to significant seasonal variations (Anker, 2000). According to the international definition of employment, child labour is identified as an economically active child if it works for at least one hour during a reference week. Child labour in this study is therefore important, as proclaimed by the ILO and the WDI, on the basis of Minimum Age Convention 1973. Our study takes a percentage of children from 5 to 14 years old on the basis of the database available in five large SAARC countries and tests the robustness for the

1999 to 2013 optional years. Based on national household surveys at national level. Most countries have their own independent observations and data collection methods for the given years. Some observations are made by allocation rather than by actual variation in child labour due to irregular surveys, in general, for SAARC countries.

Selection Effect

Krugman (1979) talks about variety preference based on variety choice (differentiated products), which is explained in more detail by Feenstra (2003). The selection effect is represented by two measures: the variation in the varieties of products produced in the country and the variation in number of national companies. The evolution of variety preference is explained by the number of companies. The measure of the number of companies is in intensive form and is defined as the number of listed national companies per square kilometre (companies / km^2). Companies established on the stock market of the country are used as an indicator of the number of companies. SEL_{it} is used to demonstrate the effect of the change in the number of companies on child labour. This effect is due to a change in the number of companies in the economy, depending on the selection of the variety of products. SEL_{it} includes all types of companies engaged in the production of goods.

Scale Effect

The effect of the change in production scale in relation to child labour is called the scale effect of child labour. In our empirical specification, SCL_{it} is the gross domestic product (GDP) of the country per square kilometre (it is a scaling effect of child labour) at time t. For this study it is important to discuss the trend related to GDP to show the scale effect. GDP explains the variation in the production scale as a result of a change in the supply of differentiated and homogeneous goods; it is wise to assume that the scale effect of child labour illustrated by the change in GDP is the overall effect of changes in the production of goods that are both homogeneous and differentiated. The scale effect in this study is GDP per square kilometre, because there are notable differences between countries in the GDP of the SAARC countries.

Technique Effect

The data used for the technique effect may be minimal or extensive. depending on the level of accuracy and must complement the aggregated effects of the change in child labour. Based on Mukhopadhyay and Chakraborty (2005) and Copeland and Taylor (2001) the effects of scale and technique is represented by GDP and the gross national product (GNP) respectively. It should be noted at this stage that the trade consists of both homogeneous and differentiated products. In the presence of GDP, GNP is the source of strong correlations between these variables. This study takes the difference between GDP and GNP, which is the net income from foreign factors (NFFI). Simply put, the NFFI is the difference between the payment made by foreigners to work in the country of origin and the payment made by people in the country of origin to work. This technique is more suitable in the Krugman context because only one production factor is used, namely labour. In this way, a country with more skilled workers will get more income from abroad, or in other words, more skilled workers will use better techniques.

Table 1: Description of Variables

Variable	Code	Description
Dependent Variable		
Child Labour	$çl_{it}$	The percentage of children (aged 5-14) engaged in child labour
Independent Variables		
Selection Effect	SEL_{it}	A specific number of listed companies per square kilometre in a country.
Scale Effect	SCL_{it}	Gross Domestic Product (GDP) per square kilometre.
Technique Effect	TEC_{it}	Net foreign factor income (NFFI) per capita.
Trade	TR_{it}	Import plus export ratio to GDP.
Trade-Induced Technique Effect	$TECTR_{it}$	Technique Effect interacted with the openness of trade.
Trade-Induced Selection Effect	$SELTR_{it}$	Selection Effect interacted with the openness of trade.
Trade-Induced Scale Effect	$SCLTR_{it}$	Scale Effect interacted with the openness of trade.

Trade Openness

TR_{it} is defined as the opening of trade in terms of trade openness and calculated as the ratio between imports plus exports relative to GDP. Trade openness is therefore the share of total trade in GDP; the greater the share of trade in GDP, the greater the trade openness of a country and therefore the more the economy is open to foreign competition. Studies such as Markusen (2013) and Edmonds and Pavcnik (2006) use the variable trade openness to express trade liberalization.

Empirical Framework

This section develops the empirical framework that addresses the relationship between trade and child labour whilst examining the various options for addressing the problem of child labour. The model expresses the foundations of new trade structures such as consumer preferences for developing countries; these are related directly to the framework of Krugman (1979). Empirical evidence of child labour in a closed economy is essential to the debate about the performance of different effects. The comparison of model A shows that the change or growth of the total child labour can be broken down into scale, selection and technique effects, respectively. The model is solved numerically for different parameter values. From this point it is possible to work completely in an empirical manner. Model A expresses the demand for child labour in self-sufficiency in relation to time (t) between countries:

$$çl_{it} = \alpha_0 + \alpha_1 SCL_{it} + \alpha_2 SEL_{it} + \alpha_3 TEC_{it} + u_{it} \quad \text{(A)}$$

The relationship between trade liberalization (measured by trade openness) and child labour is invisible in the Model A; therefore, a trade variable TR_{it} has been included to examine the effect of world trade on the level of child labour. In this research, trade openness is used to measure two types of effects. Firstly, it links trade liberalization with child labour. Second, it is explained in the form of interaction to express responses to the selection, scaling, and technique effects caused by trade. So model A is rewritten as model B below:

$$\varsigma l_{it} = \alpha_0 + \alpha_1 SCL_{it} + \alpha_2 SEL_{it} + \alpha_3 TEC_{it} + \alpha_4 TR_{it} + u_{it} \quad \text{(B)}$$

Model B shows the effect of selection of product variety, scale of production, production technique and trade on child labour. To derive the trade-related effects of child labour, an interaction-term TR_{it} is introduced with variables representing the scale and technique of production, while the number of firms represents the scale of work of children induced by trade, technique and selection effects. Here is a linear model that can be used to examine the trade-induced effects of child labour, which will be called Model C:

$$\varsigma l_{it} = \alpha_0 + \alpha_1 SELTR_{it} + \alpha_2 SCLTR_{it} + \alpha_3 TECTR_{it} + u_{it} \quad \text{(C)}$$

The $SELTR_{it}$ represents the change that causes trade in a certain number of companies. Trade causes a reduction in the number of companies due to internal economies of scale. Economies of scale make it indeed valuable for a country to specialize in the production of a limited number of products. The effect of a change in the number of companies at the level of child labours as a result of the change in trade openness is referred to as the trade-based selection effect of child labour.

$SELTR_{it}$ shows that the change in trade openness causes a change in the production scale. The effect of the change in the production scale in child labours as a result of a change in trade openness is called the trade-induced scale effect of child labour. In our empirical specification, $SCLTR_{it}$ the GDP of the country per square kilometre interacts with the intensity of trade (i.e. The scale effect of child labour caused by trade) over time t. NFFI is used to determine the effect of child labour technique. To identify the effect of the trade-induced child labour technique, the NFFI per capita interacts with the trade openness $TECTR_{it}$. Copeland and Taylor (2001) use this trade-induced technique effect in their trade and environment work. The effect of the trade-induced child labour technique shows the effect of changing income levels on the level of child labour.

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics for the variables used in this study are presented in Table 3. The summary statistics provide useful information on child labour and other explanatory variables for performing empirical analyses in the main SAARC countries, in particular in Bangladesh, India, Pakistan, Nepal and Sri Lanka. Lanka, during the study period from 1999 to 2013 with a total of 75 observations. Based on Table 3, the selection effect (number of listed companies / km ^ 2) varies from 7.18^{-05} points to 4.37^{-03} points, while the technique effect (NFFI per capita) varies from 0.26 points up to 178.62 points and the national scale (GDP / km2) ranges from a minimum of 1.87 e $^{+03}$ to a maximum of 6.64 e $^{+03}$ with an

average of 2.57 e $^{+03}$. The explanatory variable for trade ranges from 25, 54% to 88.63% with an average of 46.67%, which means that some economies are more open to trade than others; the trade-effect selection effect variable has a minimum of 4.68e^{-02} and a maximum of 3.43e $^{+01}$ with an average of 2.00e $^{+02}$, while the average of the scale effects and of the trade-induced technique is 1.32e $^{+04}$ and 3.73 e $^{+02}$.

Table 2: Summary statistics of variables

Variable Name	Variable Code	Mean	Max	Min	Std. Dev.
Child Labour	$çl_{it}$	13.65	47.2	1.47	14.04
Selection Effect	SEL_{it}	0.09	4.37e^{-03}	7.18e^{-05}	0.083
Scale Effect	SCL_{it}	2.57e^{+03}	6.64e^{+03}	1.87e^{+03}	4.40e^{+02}
Technique Effect	TEC_{it}	67.97	178.62	0.26	24.87
Trade	TR_{it}	46.67	88.63	25.54	14.02
Trade-Induced Technique Effect	$TECTR_{it}$	3.73e^{+02}	1.06e^{+03}	1.16e^{+02}	2.82e^{+02}
Trade-Induced Selection Effect	$SELTR_{it}$	2.00e^{+02}	3.43e^{+01}	4.68e^{-02}	1.65e^{+01}
Trade-Induced Scale Effect	$SCLTR_{it}$	1.32e^{+04}	3.57e^{+04}	1.62e^{+03}	1.11e^{+04}

Empirical Results

The estimation procedure used in this study consists of three steps. In the first step, an exposure assessment of the simple model (model A) contains the selection, scaling and technique effects obtained for child labour in the case of the closed economy. In the second step (Model B), the trade variable in combination with the selection, scaling and technique variables is used to find the effect of a change in trade in child labour. The third step, then presents trade interactions to verify the effects of trade in the SAARC countries.

Table 3: Estimation results for Model A and Model B

Dependent Variable: Child Labour	Closed Economy	Open Economy
Selection Effect	-0.002	-0.007***
	(-1.03)	(-8.68)
Technique Effect	-0.001***	-0.005***
	(-2.90)	(-8.28)
Scale Effect	0.0039***	0.008***
	(5.65)	(8.30)
Trade	-	0.510***
		(4.91)
Hausman Test	0.73	65.01
	(0.000)	(0.000)

Observations	75	75
R^2	0.28	0.28
$\varsigma l_{it} = \alpha_0 + \alpha_1 SEL_{it} + \alpha_2 SCL_{it} + \alpha_3 TEC_{it} + u_{it} \ldots$ (A) $\varsigma l_{it} = \alpha_0 + \alpha_1 SEL_{it} + \alpha_2 SCL_{it} + \alpha_3 TEC_{it} + \alpha_4 Trade_{it} + u_{it} \ldots$ (B)		

Note: Values of standardized regression coefficient are reported and figures in the parenthesis are t-value; ***, ** and * denotes the statistical significant at the 1%, 5%, and 10% respectively.

Table 3 gives the first estimates of the possible impact of selection, scale and technique effects using model A for self-sufficiency and model B for an open economy. A consistent sign of the estimated coefficients was reported in most variables for SAARC countries and the t values reflect the relevance of these variables. There are many ways to assess results. The indirect coherence of the technique effect of the estimates (NFFI per capita) and the selection effect (number of listed companies /km^ 2) leads to plausible conclusions about the demand for child labour, while it is equally important that the variable trade openness (export plus import divided by GDP) leads to an increase in child labour in the SAARC countries. Based on models A and B, the results show a positive relationship between the scale of economic activity measured in GDP / km ^ 2 and child labour; therefore, a positive scale effect, since an increase in this production scale has a cumulative effect on child labour. The theoretical basis suggests that high-income countries have better production techniques; this in turn means that the accumulation of work decreases with development and ultimately leads to a significant reduction in child labour. In model A, the results authenticate this prediction; in the same way this prediction is also verified for SAARC countries in model B. Finally, the effect of the term selection indicates a negative relationship between the number of listed companies and child labour. The paradox arises from the selection effect, since the reduction in the number of competent companies involved in the production of differentiated goods can be a source of increase in child labour or an increase in competent companies can be a source of reduction in children in SAARC countries. In all cases, the results are consistent with models A and B.

Another variant, the trade variable, also shows a positive association with child labour; the results indicate that an increase in trade / GDP ratios leads to an increase in child labour. This upward trend in the trade variable reflects labour-intensive production techniques in the main SAARC countries, which can be a source of increased child labour in these countries. A simple hypothesis regarding the effect of international trade on child labour is being explored by adding measures to open up trade. The theoretical prediction establishes a negative relationship between trade and child labour, while empirical evidence shows a positive and significant relationship between the predictor and the dependent variable. These results suggest that the shift to global markets (greater global integration) can be correlated with an increase in child labour in the region. Busse and Wittwer (2001) and Neumayer and De Soysa (2005) provide evidence that open trade can lead to a high incidence of child labour in developing countries. The results in table 4 show a positive relationship between openness and child labour. The trade variable measures the expected change in child labour for a 1% change in the ratio between exports plus imports and GDP.

This measure indicates that a 1% change in the share of trade in GDP increases child labours by 51% in the main SAARC countries.

Remember that there are major differences between the countries of the SAARC; therefore the scale effect is measured in the intensive form GDP /km^ 2 and the trade-induced scale effect of child labour is derived from the interaction of the trade variable. This study investigates whether the difference in production scale between countries can be isolated from the technique effect. The scale effect is therefore being investigated in an intensive form due to theoretical limitations. On the other hand, the technique effect is measured by the NFFI, which is the difference between payment to foreigners and to local farmers. This isolation reduces the correlation between the scale and the technique effect variables. The technique impact is measured by GDP in previous studies, while this analysis uses the NFFI per capita. The research shows that child labour in SAARC countries is much less sensitive to the technique effect. The overall influence of this effect is negative with regard to child labour. The dataset suggests remarkable heterogeneity in the number of companies in most SAARC countries; for the selection effect variable, this study, therefore uses the number of listed companies per square kilometre or the intensity of the company in the country. For the selection effect of child labour caused by trade, the selection effect interacts with the trade variable. In this study, the trade-to-GDP ratio is taken as a measure of trade openness, since other possible trade measures, such as total trade (X + M) and net exports (XM) vary considerably. The results are presented in Table 4.

Table 4: Estimation results for interacted and non-interacted models

Dependent Variable: Child Labour	Non-interacted	Interacted
Selection Effect	-0.002	-
	(-1.03)	
Technique Effect	-0.001***	-
	(-2.90)	
Scale Effect	0.0039***	-
	(5.65)	
SELTR	-	2.29
		(0.149)
TECTR	-	-0.002***
		(-6.53)
SCLTR	-	-0.111*
		(-1.74)
Hausman Test	0.73	1.52
	(0.000)	(0.678)

Observations	75	75
R^2	0.28	0.23
$\varsigma l_{it} = \alpha_0 + \alpha_1 SEL_{it} + \alpha_2 SCL_{it} + \alpha_3 TEC_{it} + u_{it} \ldots$ (A) $\varsigma l_{it} = \alpha_0 + \alpha_1 SELTR_{it} + \alpha_2 SCLTR_{it} + \alpha_3 TECTR_{it} + u_{it} \ldots$ (C)		

Note: Values of standardized regression coefficient are reported and figures in the parenthesis are t-value; ***, ** and * denotes the statistical significant at the 1%, 5%, and 10% respectively.

Secondly, the results in Table 4 also indicate that trade leads to a reduction in the effects of trade on child labour of a different size. For the trade variable, a positive sign is drawn from the given sample of countries; it also stems from a theoretical prediction. To verify the theoretical explanation, the results show that child labour and the share of trade in GDP is declining in most countries in this region. In addition to statistical significance, the results suggest that an increase in the selection, scale and effects of trade-induced child labour reduces child labour in SAARC countries.

The results in Table 4 show that the selection and technique variables in the SAARC countries succeed in the strategy to identify trade-related scale effects. First, the effects of trade interaction confirm the basic predictions of the model with regard to the selection, scaling, and technique effects. In particular, the desired signs of regressors in trade interaction are obtained, while the significance levels are reduced by the inclusion of trade interactions. Secondly, the effects caused by trade seem to have made a big difference in the impact of openness on child labour. The exchange coefficient of the interaction variables has a large influence due to a larger size, while in a non-interaction form the size seems very small. Third, most of the signs and statistical significance of the estimates in Table 4 are consistent with theoretical predictions. In addition, the signs of selection, scale and technique are plausible, since signs of trade-related effects lead in most cases to a reduction in child labour. Negative estimates of the scale effect of labour-induced child labour indicate that an increase in economic activity due to the production scale reduces child labour. The results are reassuring and come close to what people would expect with these effects. More speculatively, these reflections can also provide a possible explanation for the reduction child labour incidences in SAARC countries over the years, especially in India and Pakistan (UNICEF India, n.d., Bureau of International Labor Affairs, 2018)

In general, the results imply that trade liberalization alone will not reduce child labour without additional supportive measures, namely the trade-related effects of child labour, and particularly the effects of scale and technique. Therefore, this study suggests that trade liberalization through trade-induced effects are the way to reduce the incidence of child labour in emerging markets.

CONCLUSION

The findings on the scale effect of trade-induced child labour strongly dispel the suspicion that child labour increase with production scale. Put simply, the scale of production as a result of trade liberalization would not encourage-child labour.

The scale effect of child labour caused by trade, has a favourable prognosis and a response to the treatment of child labour in two ways. First, the main econometric model of the current analysis finds a statistically significant negative relationship between the production scale and the level of child labour, which is not consistent with theoretical predictions. In the context of child labour, however, the scale effect can be confused by the fact that the interaction of commercial intensity allows this effect to control child labour. Current econometric models for trade and child labour suggest that an increase (decrease) in the production scale reduces (increases) child labour while the rest remains constant.

The results of this study confirm that the technique effect is statistically significant for child labour. The regression results for the sample countries show that estimates of the effects of technique and scale can be revealed with the new framework of trade theory as opposed to the traditional trade theory framework. Estimates of the scale and technique effects of child labour yielded mixed results with regard to the characteristics and sources inherent in child labour. Analysis of the theoretical framework suggests that openness to trade or trade liberalization reduces child labour, while the available raw data excludes theoretical prediction. The general concept of trade and child labour must therefore be subdivided into the trade induced selection, scale and technique effects.

There is however, an apparent anomaly. The sign of trade variable with child labours should be negative. Theoretically when child labour is limited to national borders, the introduction of less labour-intensive technologies produced abroad replaces labour-intensive technologies. Less labour demand at national level lead to a reduction of child labour in the internal market. A second possible justification is that openness to trade can lead to an improvement in the production technique. The spread of better production techniques on the domestic market alleviates child labour. It is interesting to note that these theoretical possibilities are incompatible with the result of positive trade coefficient estimates, which are statistically significant in child labour models. These anomalous results in for this part of our model needs to be investigated in the future. Nevertheless, the overall conclusion from our study points to the idea that trade liberalization does impede or hamper incidences of child labour. Therefore, trade liberalization through trade-induced effects should be the preferred way to reduce the incidence of child labour in emerging markets.

This study differs considerably from many previous works by estimating the impact of international trade on child labour, taking into account a selection effect, a variable that is believed to be beneficial to cross-border trends in the exchange of goods. An impartial assessment lies in resolving important issues that may be relevant to policy recommendations. The selection effect is the impact of economic integration on the trade-oriented market structure through product differentiation in connection with the selection process. Opening up trade not only affects the number of companies (resulting in a number of varieties products) in the economy, but also the incidence of child labour across international borders. A theoretical explanation of the selection effect is that, by keeping the effects of scale and technique constant, the trade in differentiated goods induces a selection effect linked to child labour (is opening up to trade implies access to the foreign market), which leads to a change in the number of domestic companies or the number of product varieties. The change in the number of companies or varieties leads to a change in child labour; it is simply referred to as the trade-based selection effect of child labour.

REFERENCE

Ab-Rahim, R., & Tariq, B. (2017). The Impact of Trade on Child Labor: Evidence From Selected Saarc and ASEAN Countries. *Journal of Indonesian Economy and Business*, *32*(1), 1-18.

Abbas, M., Muhammad, S., Shabbir, M. S., Nimer, Q., Mir, Bibi, A., & Siddiqi, A. (2020). Ciencias Sociales y Arte Año 10 N° 28 Septiembre -Diciembre 2019 Tercera Época Maracaibo-Venezuela Ecological Consequences of Climate Change on Pioneer Business. REVISTA DE LA UNIVERSIDAD DEL ZULIA.

Abbasi, S. G., Shabbir, M. S., Abbas, M., & Tahir, M. S. (2020). HPWS and knowledge sharing behavior: The role of psychological empowerment and organizational identification in public sector banks. Journal of Public Affairs. https://doi.org/10.1002/pa.2512

Abbasi, S. G., Tahir, M. S., Abbas, M., & Shabbir, M. S. (2020). Examining the relationship between recruitment & selection practices and business growth: An exploratory study. Journal of Public Affairs. https://doi.org/10.1002/pa.2438

Ahmad, J., Ahmad, D., Abbas, m., Ashraf, M., & Shabbir, M. S. (2018). Effect of Debt Overhang on the Development of Heavily Indebted Poor Countries: Debt Laffer Curve Analysis. Revista Publicando, 357-379.

Al-Kumaim, N. H., Hassan, S. H., Shabbir, M. S., Almazroi, A. A., & Abu Al-Rejal, H. M. (2021). Exploring the Inescapable Suffering Among Postgraduate Researchers: Information Overload Perceptions and Implications for Future Research. International Journal of Information and Communication Technology Education, 17(1), 19-41. https://doi.org/10.4018/ijicte.2021010102

Arshad, M. A., Shabbir, M. S., Mahmood, A., Khan, S., & Sulaiman, M. A. (2020). An exploration of IQ, EQ, spiritual quotient (SQ) elements in the human reengineering program (HRP) practices: A study on the drug rehabilitation Centre in Malaysia. Journal of Human Sport and Exercise - 2020 - Winter Conferences of Sports Science. https://doi.org/10.14198/jhse.2020.15.proc2.32

Ashraf, M., Ahmad, J., Sharif, W., Raza, A. A., Shabbir, M. S., Abbas, M., & Thurasamy, R. (2020). The role of continuous trust in usage of online product recommendations. Online Information Review, 44(4), 745-766. https://doi.org/10.1108/oir-05-2018-0156

Anker, R. (2000). The Economics of Child Labour: A Framework for Measurement. *International Labour Review*, *139*(3), 257-280.

Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of econometrics*, *68*(1), 29-51.

Balassa, B. (2013). *The Theory of Economic Integration*. London: Routledge.

Balakrishnan, P., Shabbir, M. S., & Siddiqi, A. (2019). Current status and future prospects of renewable energy: A case study. Energy Sources Part A Recovery

Utilization and Environmental Effects, 42, 1-6. https://doi.org/10.1080/15567036.2019.1618983

Baltagi, B. H., Song, S. H., & Koh, W. (2003). Testing panel data regression models with spatial error correlation. *Journal of econometrics*, *117*(1), 123-150.

Basu, K., & Van, P. (1998). The Economics of Child Labor. *The American Economic Review*, *88*(3), 412-427.

Bhagwati, J. (2001), 'Free Trade and Labor. Retrieved from http://time.dufe.edu.cn/wencong/bhagwati/ft_lab.pdf.

Bureau of International Labor Affairs. (2018), Child Labor and Forced Labor Reports: Pakistan. Retrieved from https://www.dol.gov/agencies/ilab/resources/reports/child-labor/pakistan

Burstein, A., & Vogel, J. (2010). Globalization, Technique, and the Skill Premium: A Quantitative Analysis, NBER Working Paper (No. w16459). National Bureau of Economic Research.

Busse, M., & Wittwer, G. (2001). Do Labour Standards Affect Comparative Advantage? Evidence for Labour-Intensive Goods. *World Development* 30 (11), 1921-1932.

Chen, M. A., Jhabvala, R., & Lund, F. (2002). *Supporting Workers in the Informal Economy: A Policy Framework*. Geneva: International Labour Office.

Cigno, A. (2015). Trade, Foreign Investment, and Wage Inequality in Developing Countries. *IZA World of Labour*.

Collier, P., & Dollar, D. (2002). *Globalization, Growth, and Poverty: Building An Inclusive World Economy*. Oxford University Press.

Copeland, B. R., & Taylor, M. S. (2001). International Trade and the Environment: A Framework for Analysis, NBER Working Paper (No. w8540). National Bureau of Economic Research.

Davis, D. R., & Dingel, J. I. (2014). The Comparative Advantage of Cities, NBER Working Paper (No. w20602). National Bureau of Economic Research.

Davis, R. B., & Voy, A. (2007). The Effects of FDI on Child Labour (No. 215). IIIS Discussion Paper.

De Paoli, A., & Mendola, M. (2015). International Migration and Child Labour in Developing Countries. *The World Economy*.

Dimova, R., Epstein, G. S., & Gang, I. N. (2015). Migration, Transfers and Child Labour. *Review of Development Economics*, 19(3), 735-747.

Dinopoulos, E., & Zhao, L. (2007). Child Labour and Globalization. *Journal of Labour Economics*, *25*(3), 553-579.

Doepke, M., & Zilibotti, F. (2010). Do International Labor Standards Contribute to the Persistence of the Child-Labor Problem*? Journal of Economic Growth*, 15 (1), 1-31.

Dustmann, C., & Glitz, A. (2015). How Do Industries and Firms Respond to Changes in Local Labour Supply? *Journal of Labour Economics*, 33(3 Part 1), 711-750.

Edmonds, E. V. (2005c). Does Child Labour Decline with Improving Economic Status? *Journal of Human Resources, 40*(1), 77-99.

Edmonds, E. V. (2007). Child Labour. *Handbook of Development Economics*, 4, 3607-3709.

Edmonds, E. V. (2015). Economic Growth and Child Labour in Low Income Economies. Retrieved from: http:// glm-lic.iza.org/file/view/publications/2015-0814edmonds_izadraft.pdf

Edmonds, E. V., & Pavcnik, N. (2005a). Child Labour in the Global Economy. *The Journal of Economic Perspectives*, 19 (1), 199-220.

Edmonds, E. V., & Pavcnik, N. (2005b). The Effect of Trade Liberalization on Child Labour. *Journal of International Economics*, 65 (2), 401-419.

Edmonds, E. V., & Pavcnik, N. (2006). International Trade and Child Labour: Cross-country Evidence. *Journal of International Economics*, *68*(1), 115-140.

Edmonds, E. V., & Pavcnik, N. (2006). International Trade and Child Labor: Cross-Country Evidence. *Journal of International Economics*, 68 (1), 115-140.

Edmonds, E., & Pavcnik, N. (2007). Trade and Child Labour. VoxEU.org. URL: https://voxeu.org/article/trade-and-child-labour

Edmonds, Eric (2010), 'Trade, Child Labour, and Schooling in Poor Countries,' in G. Porto and B. Hoekman, eds., *Trade Adjustment Costs in Developing Countries: Impacts, Determinants, and Policy Responses*, The World Bank Press, pp. 179-196.

Emerson, P. M., & Souza, A. P. (2011). Is Child Labor Harmful? The Impact of Working Earlier in Life on Adult Earnings. *Economic Development and Cultural Change*, 59 (2), 345-385.

Estevez, K. (2010). Essays on Child Labour, Productivity, and Trade (Doctoral dissertation). University of Florida, Florida.

Estevez, K. (2011). Nutritional Efficiency Wages and Child Labor. *Economic Modelling*, 28(4), 1793-1801.

Estevez, K., & Levy, T. (2014). Intra-industry Trade and the Demand for Child Labour. *International Journal of Economic Theory*, *10*(3), 275-294.

Feenstra, R. C. (2003). *Advanced International Trade: Theory and Evidence*. Princeton: Princeton University Press.

Fors, H. C. (2012). Child Labour: A Review of Recent Theory and Evidence with Policy Implications. Journal of Economic Surveys, 26(4), 570-593.

Green, W. H., Milles, T. C., & Patterson, K. (2008). Discrete choice modelling. *Handbook of Econometrics*.

Grootaert, C., & Kanbur, R. (1995). Child Labour: An Economic Perspective. *International Labour Review.*, 134(2), 187-203.

Grossmann, H., and Michaelis, J. (2007). Trade sanctions and the incidence of child labor. *Review of Development Economics*, 11(1), 49-62

Hafner-Burton, E. M. (2013). *Forced to be Good: Why Trade Agreements Boost Human Rights.* Ithaca, NY: Cornell University Press.

Hameed, A., & Nazir, A. (2009). Economic Globalisation and Its Impact on Poverty and Inequality: Evidence from Pakistan. *ECO Economic Journal*, 1 (1), 1-21.

Herath, G. (2012). Child Labour in Developing Countries: Review of Theoretical and Empirical Issues in Gamini Herath and Kishor Sharma (eds.) *Child Labour in South Asia*. Hampshire: Ashgate Publishing Ltd.

Hillman A. (2008). Trade Liberalization and Globalization. In C. Rowley and F, Schneider (Eds.), *Readings in Public Choice and Constitutional Political Economy*. Boston, MA: Springer

Hindman, H. D. (2011). *The World of Child Labour: A Historical and Regional Survey*. New York: M.E. Sharpe, Inc.

ILO (2014). Child Labour in South Asia. available at: http://www.ilo.org/newdelhi/areasofwork/child-labour/WCMS_300805/lang--en/index.htm.

ILO (2015). New ILO Study on Child Labor in South Asia available at http://www.ilo.org/newdelhi/info/public/pr/WCMS_346673/lang--en/index.htm.

ILO-IPEC (2013), Marking Progress Against Child Labour. Global Estimates and Trends 2000- 2012, Geneva, Switzerland.

Iram, U., & Fatima, A. (2008). International Trade, Foreign Direct Investment and the Phenomenon of Child Labour: The Case of Pakistan. *International Journal of Social Economics*, 35 (11), 809-822.

Jafarey, S., & Lahiri, S. (2002). Will Trade Sanctions Reduce Child Labour?: The Role of Credit Markets. *Journal of Development Economics*, 68 (1), 137-156.

Jabarullah, N. H., Shabbir, M. S., Abbas, M., Siddiqi, A. F., & Berti, S. (2019). Using random inquiry optimization method for provision of heat and cooling demand in hub systems for smart buildings. Sustainable Cities and Society, 47, 101475. https://doi.org/10.1016/j.scs.2019.101475

Khan, M., Shabbir, M. S., Tahir, m. S., Ali, R., & Hussain, M. (2019). Investment-Cash Flow Sensitivity in Family Owned Pakistani Firms. Revista Amazonia Investiga, 8, 376-386.

Karlan, D., & Valdivia, M. (2011). Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions. *Review of Economics and Statistics*, 93 (2), 510-527.

Kis-Katos, K. (2007). Does Globalization Reduce Child Labour? *The Journal of International Trade & Economic Development*, 16 (1), 71-92.

Kluttz, J. (2015). Re-Evaluating the Relationship between Education and Child Labour Using the Capabilities Approach: Policy and Implications for Inequality in Cambodia. *Theory and Research in Education, 13*(2), 165-179.

Kruger, D. I. (2007). Coffee Production Effects on Child Labour and Schooling in Rural Brazil. *Journal of Development Economics, 82*(2), 448-463.

Krugman, P. (1991). Increasing Returns and Economic Geography. *Journal of Political Economy*, 99, 483- 499.

Krugman, P. R. & Obstfeld, M. (2006). *International Economics – Theory and Policy*. Pearson Addison Wesley, Boston.

Krugman, P. R. (1979). Increasing Returns, Monopolistic Competition, and International Trade. *Journal of International Economics,* 9 (4), 469-479.

Krugman, P. R. (1980), Scale Economies, Product Differentiation, and the Pattern of Trade. *American Economic Review*, 70, 950-959.

Krugman, Paul R. (1980), Scale Economies, Product Differentiation, and the Pattern of Trade. *American Economic Review*, 70, 950-959.

Levitt, T. (2009). The Globalization of Market., In M. B. Steger, Globalization: The Greatest Hits: A Global Studies Reader. Oxford University Press.

Mahmood, Z., & Azhar, M. (2001). On Over Invoicing of Exports in Pakistan. *The Pakistan Development Review*, 40 (3), 173-185.

Maneschi, A. (1998). *Comparative Advantage in International Trade: A Historical Perspective*. Edward Elgar Publishing.

Marjit, S. (Ed.). (2011). *India Macroeconomics Annual 2010*. SAGE Publications India.

Markusen, J. R. (2013). Putting Per-capita Income Back into Trade Theory. *Journal of International Economics, 90*(2), 255-265.

Marx, K ([1867] 1981). *Capital (Das Kapital).* New York, NY: Vintage Books.

Maskus, K. (1997). Should Core Labour Standards Be Imposed through International Trade Policy. World Bank Development Research Group Policy Research Working Paper (No. 1817), World Bank, Washington, D.C. Retrieved from http://www.worldbank.org/research/trade/wp1817.html.

Mukhopadhyay, K., & Chakraborty, D. (2005). Is Liberalization of Trade Good for the Environment? Evidence from India. *Asia-Pacific Development Journal,* 12 (1), 109.

Neumayer, E., & De Soysa, I. (2005). Trade Openness, Foreign Direct Investment and Child Labour. *World Development,* 33 (1), 43-63.

Nieboer, H. J. (2011). *Slavery as an Industrial System: Ethnological Researches.* Cambridge: Cambridge University Press.

Rahman, M. M., & Khanam, R. (2012). Child Labour: The Effects of Globalisation. *Journal of Applied Business and Economics*, 13(4), 59-71.

Ray, R., & Chatterjee, B. (2012). Trade and Child Labour: A Review of Theoretical Literature. *Journal of International Economics,* 3 (1), 93-113.

Romer, D. H., & Frankel, J. A. (1999). Does Trade Cause Growth? *American Economic Review*, *89*(3), 379-399.

Sahin, S., & Ghosh, A. N. (2016). Effect of Ban on Exports Containing Child Labour in a Dynamic Model in Presence of Imperfect Monitoring. *Foreign Trade Review, 51*(1), 26-45.

Steger, M. B. (2009). Introduction., In M. B. Steger, Globalization: The Greatest Hits: A Global Studies Reader. Oxford University Press.

Tariq, B., & Ab-Rahim, R. (2014). Analysing Framework of the Nexus between Intra-Industry Trade and the Child Labour in SAARC Region in Proceedings from International Borneo Business Conference. 476 – 495

Tariq, B., & Ab-Rahim, R. (2016). The Environmental Effects of Intra-Industry Trade in the SAARC Region. *International Journal of Business and Society*, 17 (1)

UNICEF India (n.d.), What We Do. Retrieved from https://unicef.in/Whatwedo/21/Child-Labour

WDI (2012). World Development Indicators, World Bank: Washington.

WDI (2014). World Development Indicators. Washington, The World Bank, Available at http:// databank.worldbank.org.

White, B. (1996). Globalization and the Child Labor Problem. *Journal of International Development*: 8(6), 829-839.

Wood, A., & Ridao-Cano, C. (1999). Skill, Trade, and International Inequality. *Oxford Economic Papers*, *51*(1), 89-119.

Xu, Y., Cho, S. H., & Tayur, S. R. (2015). Combating Child Labour: Incentives and Information Transparency in Global Supply Chains. *Available at SSRN*.

Zaman, K., Shah, I. A., Khan, M. M., & Ahmad, M. (2013). External Debt: New Evidence from a Panel of SAARC Countries. Journal of Economic and Social Studies. 3(2).