

**Trade Liberalization and Child Labour: Empirical Evidence from
Manufacturing Sector of Pakistan**

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ABSTRACT

Employing micro-level datasets of Pakistan, we examine the relationship between child labor and trade liberalization with special emphasis on the manufacturing sector during the period 1990-to 2005. The impact of liberalization of trade is found to be positive and significantly related to child labor. Our study found that the protection rate contributes to the lessening of child labor in the manufacturing sectors of Pakistan that experienced the largest tariffs cut throughout the trade regime. The findings are robust to the inclusion of related controls. This study also found that the lagged impact of trade policy equally led to the decline of child labor. The policy insinuation is that developing nations should liberalize their economies to gain from the benefits of trade liberalization to reduce child labor.

Keywords: Manufacturing Industry, Trade Liberalization, Child Labor

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INTRODUCTION

The 1990s saw an interesting and challenging period for those employed in industries as child workers. According to ILO, 120 million children in the world aged 5-14 did full-time paid work in 1995 (Ashagrie, 1998). To abolish child labor, the new millennium has seen to made efforts for the prohibition of child labor as child labor is growing in developing countries (Basu & Tzannatos, 2003; Kanbur & Grootaert, 1995), and because it has longer impacts on the development of a country.

The evidence on child labor suggests that most of the children in developing economies do work (Basu, 1999; Ersado, 2003; Labour, 2002). In the majority of the cases, children of the developing nation performed work in production workshops of exportable products of the manufacturing sectors. Moreover, child labor is depicted in mass media as a rising issue generated by openness to trade (Cigno, Rosati, & Guarcello,

2002). Children who work within the manufacturing sectors are affected as a result of liberalization. The reduction of the protection rate induces the exporter to enhance the quality of its exports as well as increase its export price in the industries. So, the fall in the price of imported commodities would lead producers to upgrade their export products by hiring skilled labor. In this way, it will affect child labor by reducing its demand for work (Fan, Li, & Yeaple, 2014).

There has been little awareness of whether trade policy favors a decrease or an increase in child labor. As such, the theory does not provide a suitable guide for reasons that it does not generate sharp predictions in one way or the other: it depends on the elasticity of substitution within the child and adult labor in consumption and production, and the impact of marketization on child labor can be different in different circumstances (Eric V Edmonds & Pavcnik, 2005; Wahba, 2006). Economic theory is as well ambiguous vis-à-vis the influence of liberalization on child labor (see, Jafarey and Lahiri (2002)). On the basis of the available evidence, the findings of the net effect of openness to trade on child labor are inconclusive (Zhao, Wang, & Zhao, 2016).

By exploring the correlation between child labor and trade liberalization in the manufacturing sector of Pakistan, this empirical work found statistically significant evidence that reducing import tariffs leads to a decrease in child labor in the manufacturing sector. The findings of this research are robust after the addition of controls and are in line with the results of Kis-Katos and Sparrow (2011) and not in line with E. V. Edmonds, Pavcnik, and Topalova (2006).

This research closes the existing gap in the literature by exploring the impacts of trade liberalization on child labor in the manufacturing sector, utilizing import tariffs reduction as a proxy for trade liberalization which is a better proxy compared to previously used measures such as trade ratios as well as time-series data in the case of Pakistan. Labor market regulations are anticipated as a crucial factor rather than trade policy in discussing the employment status. Fortunately, there are no new labor market regulations that have been implemented during our sample period which could have affected labor market flexibility or rigidity. Pakistan is an essential case and provides an opportunity to scrutinize the liberalization impact on child labor in the nonexistence of labor reforms. Accordingly, we expect that the findings are purely attributed to trade policy (Wu, Ul-Haq, Zafar, Sun, & Jiang, 2019).

The paper is organized as follows: the theoretical framework is described in section 2. Data for the empirical analysis is defined in section 3. The methodology is present in section 4 and section 5 presents the results discussion and conclusion of the study.

THEORETICAL FRAMEWORK

Theoretically, it is visualized that the integration among the commodity markets could change the local labor market structure by altering the products' relative prices. Consequently, product price arrangements have been utilized to check the possible impacts of the openness of an economy on the labor market (Leamer & Levinsohn, 1995). The major factors that determine child labor are parental preferences, work necessities and opportunities, credit constraints, and schooling returns, and their close relation to poverty cannot be denied (Eric V Edmonds & Pavcnik, 2005). Therefore, it is argued that child labor declines with reducing trade barriers if benefits are directed to the poor labor sector of an economy. On the basis of the Stolper-Samuelson theorem, trade liberalization is a fundamental element to reducing poverty, especially in poor economies, and leads to the reduction of child labor.

Theoretically, when an economy is opened, reducing its trade barrier affects the child's work in that economy (Anderson, Bird, & Gillson, 2005; Chaudhuri & Dwibedi, 2005; Dinopoulos & Zhao, 2007; Grossmann & Michaelis, 2007). According to economic theory, child labor in developing countries is influenced by international trade. Several studies consider the theoretical links between the association of openness to trade and child labor after the reduction of import tariffs. Deliberating on the mechanism through which trade liberalization influences child employment, it is evidence that reducing import tariffs induces producers to upgrade the quality of their exported products for the fact that competition increases. As such, firms that face the largest tariffs cut are observed to increase the price of their exports.

- Trade liberalization (import tariffs↓) → tariff reduction induces the country's producers to upgrade the quality of exports by hiring skilled labor → price of export↑ → profit of domestic industries ↑→ child labor ↓(Fan et al., 2014).
- Trade liberalization (import tariffs↓) → price of imported commodity↓ → real income↑→ household GDP per capita ↑→ improved economic situation→ child labor ↓(Jintong, 2017).
- Trade liberalization (import tariffs↓) → imported product price ↓ → real income of parents will increase → basic needs will be fulfilled → chances of poverty↓ → child schooling ↑ → child labor ↓(E. Edmonds et al., 2006).

Theory shows an inconclusive relation between child labor and trade liberalization and this calls for empirical estimates to further clarify this association.

METHODOLOGY

Pakistan Trade Policy

A momentous adjustment has made in Pakistan's trade policy during the epoch of 1988- to 2005. Despite the fact that Pakistan significantly opened its trading environment during Zia's era, remarkable modifications were effected in its trading policy as part of its SAP (1988). The lessening of tariff rates gradually varied from sector to sector and with time (Wu et al., 2019). This reduction of tariffs facilitates the sectors especially the most benefited for the manufacturing sector to import from the three most guarded industries, wood, wood products & furniture (106%), textile & apparel (96%), and other manufacturing & handicraft (94%), faced average tariffs respectively. It proposes that Pakistan protected fairly less skilled-labor-intensive sectors, having the same position just like Brazil and Colombia (Goldberg & Pavcnik, 2003).

The descriptive statistics about tariff reduction in the manufacturing sectors during the trade regime are presented in Table 1. As shown, the average tariffs rate of manufacturing sectors in 1990-2005 reduced from 63% to 13%. It shows that import tariffs decreased with time and this change shows the commitment of Pakistan to its negotiations with WTO to achieve low levels of tariffs. The economy of Pakistan was opened progressively by tariff slabs decrease, followed by the reduction of tariff rate and then the abolition of the non-tariff trade barriers. Looking through the decrease of tariff rate across the sample period, the most severe amendments occurred in 1992-1999 inclusively. Additionally, across the sectors, the most drastic average tariff reduction also altered the Pakistan protection structure.

Table 1: Descriptive Statistics of the Protection Rates

Variable	1990	1992	1994	1996	1999	2001	2003	2005
N	9	9	9	9	9	9	9	9
Mean	63.22	64.44	51.29	41.47	24.3	19.99	16.51	13.76
SD	37.84	27.81	20.27	19.39	11.28	9.98	8.2	8.74
Min	0	0	0	0	0	1.83*	3.5	0.29*
Max	163.24*	160	120	111.8*	83.52*	60	48.92*	45.71*

Borrowed from [Wu et al. \(2019\)](#). *shows percentage tax equivalence, 'N' is the sectors.

Table 2: ILO Conventions Ratified by Pakistan

Name of convention	Forced Labour Convention	Freedom of Association and Protection of the Right to Organize Convention	Right to Organize and Collective Bargaining Convention	Equal Remuneration Convention	Abolition of Forced Labor Convention	Discrimination Convention	Minimum Age Convention	Worst Forms of Child Labor Convention
Year	1930	1948	1949	1951	1957	1958	1973	1999
Date of ratification	1957	1951	1952	2001	1960	1961	2006	2001
Convention	No.29	No.87	No.98	No.100	No.105	No.111	No.138	No.182
Countries	152	128	146	145	144	142	88	169
Ratifying Status	In force	In force	In force	In force	In force	In force	In force	In force

National Household Data

The share of child labor aged 10-14 is used to represent child labor ILO(2000) . The sources of child labor data are from the Labor Force Survey (henceforth LFS). We link data on trade exposure to labor force data. Our study uses all the available surveys of LFS conducted from 1990 to 2005 by the Pakistan Bureau of Statistics for analysis. The key goal of a labor force survey is to gather data on a set of wide-ranging statistics on several aspects of a country's civilian labor force. Data on import tariffs and other sector-related variables are borrowed from Wu et al. (2019).

Child Labor in Pakistan

Child labor is profoundly embedded and remarkably spread throughout Pakistan. Child labor is a complex financial issue that not just abuses the essential human privileges of individual children by ruining their physical, educational and mental development, yet additionally obstructs the fair development of economies by producing an uneducated and less skilled workforce and in this manner helps to prolong poverty. A child is characterized as an individual who is 5-14 years of age and child labor is characterized as the involvement of school-age children in the workforce, for example, work for a wage or in family enterprises to acquire a living for themselves or to support the family income.

Historically, no sector has ever been liberated from this issue, and during the 1990s there were extensive efforts to abolish child labor. Nations and governments have moved from a total refusal of the presence of the issue to enacting laws and adopting positive activities for handling the issue. The human rights commission (HRC) of Pakistan indicated that 10.2 percent of children of age under 10 are involved in child labor and 8.3 percent of children in 1996 as estimated by FBS (Mohtasib, 2019), and 6.7 percent of working child of aged 10-14 according to LFS 2014-15 (Mustafa, 2017; Shamoon, 2019).

In Pakistan, the government has confirmed and executed 34 conventions of ILO, involving the 8 basic conventions. The status and ratification of these conventions are shown in Table 2.

EMPIRICAL FRAMEWORK

This section presents the method employed to accomplish the empirical study on the relationship between child labor and trade liberalization in manufacturing sectors. To empirically investigate the trade liberalization impact on child labor, our study estimates the panel regression model in which we used the participation of 10-14 years old children in the labor force as our dependent variable, and sectoral tariffs are the core independent variable of our empirical model. To explore the effect of trade liberalization (TL) on child labor (CL), we estimate the following equation:

$$CL_{jt} = \beta_0 + \beta_1 T_{jt} + \beta_2 X_{jt} + \epsilon_{jt} \quad (1)$$

We utilized the share of child labor (CL) for child employment in sector j at time t . The key variable of this study is the tariffs T in sector j (such as 31-39 respectively) at time t . Such as Manuf. of Beverage, Tobacco, and Food is 31. Manuf. of Leather and Apparel Industry and Textile wearing is 32. Manuf. of Furniture, Wood Product and Wood is 33. Manuf. of Product from Paper, Publishing, and Printing is 34. Manuf. of Plastic Product, Chemical Petroleum and Coal Rubber is 35. Manuf. Product of Non-Metallic excluding Coal and Petroleum is 36. The basic metal industry is 37. Manuf. fabricated metal

products, equipment, and machinery are 38. Other Manuf. handicrafts and industries are 39. The Vector X_{jt} indicates a set of time and industry-related dummies, and other control variables for robustness check. The adoption of policy-based measures of import tariffs for trade liberalization indicates a better measure as it provides an added benefit over the previously used measures such as export consumption ratio, import penetration, and relative prices (Casabianca, 2016; Goldberg & Pavcnik, 2005). It suggested that it is more suitable than outcome-based measures, Sachs and Warner index 1995, and a host of others. The reason behind preferring the tariffs is that it is a policy-based measure in which the possibility of error is less (Casabianca, 2016; Goldberg & Pavcnik, 2005; Wu et al., 2019).

In the existing literature, more frequently the use of trade ratio measures for trade liberalization especially in the case of Pakistan poses serious problems. In developing nations (low income), the issue of under-invoicing of imports as well over-invoicing of exports is common, especially in Pakistan (Bhagwati, 1964; Lane, 2007; Mahmood, 1997; Mahmood & Azhar, 2001; Sheikh, 1974). Thus, the utilization of trade ratios is not a correct measure to predict the core impacts of trade liberalization. So, we used import tariffs following existing research (Eric V. Edmonds, Topalova, & Pavcnik, 2009; Goldberg & Pavcnik, 2003; Kis-Katos & Sparrow, 2009; Ul-Haq, Khanum, & Raza Cheema, 2020; Wu et al., 2019).

Results and Discussion

In this section, we discuss the findings of our core model on the association of TL and CL in manufacturing sectors for a sample period (1990-2005) in Pakistan. The impacts of liberalization are found to be positively and significantly related to child labor. In Table 3, the coefficient of our key variable shows that liberalization leads toward the reduction of child labor in the manufacturing sectors in the model (1) and (5) representing the random effects and generalized least squares respectively.

The RE and GLS results are consistent for the manufacturing sector. The coefficient of tariffs is positive and significant for all models, suggesting the existence of an association between child labor and tariff reduction. Specifically, a 1% fall in the protection rate of a given sector is related to a 0.05% and 0.06% decrease in CL in the RE and GLS models respectively. Our results are in line with the results of Kis-Katos and Sparrow (2011) and not in line with E. V. Edmonds et al. (2006). To check the robustness of our results in the case of manufacturing sectors of Pakistan, we add several control variables in our main model such as the gross domestic product (GDP), gross fixed capital formation (GFCF), lagged exports (LX), lagged imports (LM), import penetration (IP), export consumption ratio (XCR), net imports* tariffs (NM*tariffs). The robustness findings are shown in 2-4 and 6-8 models. The findings after robustness checks are robust and insensitive to control variables in all models of our study. In the regression models, the addition of these several control variables is not guided by the trade theory. However, the significance and the magnitude of the protection coefficient is not altered by the inclusion of these variables.

Table 3: Trade Liberalization and Child Labor in the Manufacturing Sector

	RE Models					GLS Models		
	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)	(M7)	(M8)
Tariffs	0.000571* (0.000343)	0.000743*** (0.000236)	0.000897*** (0.000325)	0.000505** (0.000232)	0.000615*** (0.000181)	0.000659*** (0.000171)	0.000740** (0.000301)	0.000484*** (0.000155)
NM*tariffs		-0.000304*** (0.000100)				-0.000266*** (8.28e-05)		
Lagged Exports			8.38e-11* (0)				1.08e-10** (0)	
Lagged Imports			-1.30e-10** (6.15e-11)				-1.40e-10* (7.37e-11)	
GDP			-0 (0)	-5.67e-11 (0)	0.0193* (0.0113)	0.0112 (0.0116)		0.0136 (0.0106)
GFCF			0 (1.11e-10)	1.22e-10 (9.92e-11)			-0 (0)	-5.01e-11** (0)
Import Penetration				-0.00779* (0.00453)			-0 (6.84e-11)	1.01e-10** (0)
Export Consumption Ratio				0.0215*** (0.00576)				-0.00745 (0.00475)
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: child labor is the outcome variable in all models. S.E is given in parentheses. NM*Tariffs is an interactive variable of the net importer (NM) and import tariffs. ***for 1, **for 5, & *for 10 percent. N is 72 in all models except 63 in the 3rd & 7th models.

Table 4: Lagged-Trade-Policy and Child Labor in Manufacturing Sector

	RE Models				GLS Models			
	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)	(M7)	(M8)
Lagged Tariffs	0.000454* (0.000265)	0.000155 (0.000264)	0.000307 (0.000263)	0.000260 (0.000261)	0.000502*** (0.000172)	0.000334* (0.000185)	0.000308 (0.000191)	0.000327** (0.000154)
Lagged Exports		7.51e-11** (0)	8.48e-11 (5.44e-11)			6.99e-11*** (0)	1.18e-10*** (0)	
Lagged Imports		-2.29e-10*** (8.38e-11)	-1.91e-10** (8.70e-11)			-1.67e-10*** (5.80e-11)	-1.70e-10** (6.85e-11)	
GDP			-0 (0)	-5.18e-11* (0)			-0 (0)	-0 (0)
GFCF			0 (8.55e-11)	1.28e-10* (7.35e-11)			-0 (7.08e-11)	1.02e-10** (5.10e-11)
Import Penetration				-0.00305 (0.00864)				-0.00210 (0.00493)
Export Consumption Ratio				0.0177** (0.00772)				0.0159*** (0.00497)
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: child labor is a regressand variable in all models. S.E is shown in parentheses. ***for 1, **for 5, & *for 10 percent. N is 63 in all models.

Lagged Trade Policy Impact on Child Labor

To explore child labor amendments concerning the reduction of tariffs might take time to appear, thereby requiring to the investigation of the link between child labor and lagged trade policy. The empirical results are present in Table 4 and are estimated in the same way as the previous (results are shown in Table 3) with the exclusion of the basic explanatory trade liberalization (reduction in import tariffs). The coefficient of lagged trade policy is significant as well as positively associated with CL. This policy's impact on child labor is the same as that of tariffs. The coefficient on lagged trade policy is also robust after including other variables and proposes a positive link between lagged trade policy and CL.

The expected sign for lagged policy coefficient is similar to tariffs presented in Table 3. However, in some specifications, the coefficients are insignificant, as shown in Table 4. In a nutshell, we observed a significant connection between the manufacturing sector child labor and trade liberalization in Pakistan. In other words, reductions in tariffs are positively related to child labor. These findings are robust after the inclusion of different trade-related variables in all specifications. We also reveal a significant correlation between child labor and lagged trade policy. These findings are also robust, after incorporating several controls. Since there was no labor market regulation during our sample period, we can conclude that this is the essential influence of openness to trade on child labor.

CONCLUSION

Pakistan for trading purposes opened its economy in 1988 as a part of the SAPs of IMF, and during this period there was a drastic reduction in protection rates. This reductions in tariff rates were unanticipated and continuously amended across sectors. This paper has inspected the relationship between child labor and trade liberalization in Pakistan. We find that the reduction of protection rates is related to the fall in child labor in manufacturing sectors with the largest tariff cuts. Regarding the robustness checks, our findings with the inclusion of various controls are robust.

The labor market regulations are anticipated as a crucial factor rather than trade policy in discussing the employment status. Fortunately, there was no new labor market regulation that was implemented within the trade regime of span which could have affected labor market flexibility or rigidity. Pakistan is an essential case and provides an opportunity to scrutinize the liberalization impacts on CL in the nonexistence of labor reforms. According to this perspective, we expect that the findings are purely attributed to trade policy.

However, we observed a decreasing trend of child labor in the manufacturing sectors, but still, the prevalence of child labor is high in Pakistan. The government should make policies to open the economy more because as economies open, competition increases, and so domestic producers improve quality by hiring an educated as well as skilled labor force which reduces child labor.

REFERENCES:

- Anderson, E., Bird, K., & Gillson, I. (2005). Assessing the impact of trade liberalisation on children: a conceptual framework.
- Ashagrie, K. (1998). Statistics on child labor and hazardous child labor in brief. *Bureau of Labour Statistics*.

- Basu, K. (1999). Child labor: cause, consequence, and cure, with remarks on international labor standards. *Journal of Economic literature*, 37(3), 1083-1119.
- Basu, K., & Tzannatos, Z. (2003). The Global Child Labor Problem: What do we know and what can we do? *The World Bank Economic Review*, 17(2), 147-173.
- Bhagwati, J. (1964). The pure theory of international trade: A survey. *The Economic Journal*, 74(293), 1-84.
- Casabianca, E. J. (2016). Distributional effects of multilateral and preferential trade liberalisation: The case of Paraguay. *The Journal of International Trade & Economic Development*, 25(1), 80-102.
- Chaudhuri, S., & Dwibedi, J. K. (2005). Trade Liberalization in Agriculture in Developed Countries and Incidence of Child Labour in a Developing Economy. Available at SSRN 701642.
- Cigno, A., Rosati, F. C., & Guarcello, L. (2002). Does globalization increase child labor? *World Development*, 30(9), 1579-1589.
- Dinopoulos, E., & Zhao, L. (2007). Child labor and globalization. *Journal of Labor Economics*, 25(3), 553-579.
- Edmonds, E. V., & Pavcnik, N. (2005). The effect of trade liberalization on child labor. *Journal of international Economics*, 65(2), 401-419.
- Edmonds, E. V., Pavcnik, N., & Topalova, P. (2006). Trade Liberalization, Child Labor and Schooling: Evidence from India.
- Edmonds, E. V., Topalova, P., & Pavcnik, N. (2009). Child Labor and Schooling in a Globalizing World: Some Evidence from Urban India. *Journal of the European Economic Association*, 7(2-3), 498-507. doi: 10.1162/jeea.2009.7.2-3.498
- Ersado, L. (2003). Child labor and school decisions in urban and rural areas: Cross country evidence.
- Fan, H., Li, Y. A., & Yeaple, S. R. (2014). Online Appendix for: "Trade Liberalization, Quality, and Export Prices".
- Goldberg, P. K., & Pavcnik, N. (2003). The response of the informal sector to trade liberalization. *Journal of development Economics*, 72(2), 463-496.
- Goldberg, P. K., & Pavcnik, N. (2005). Trade, wages, and the political economy of trade protection: evidence from the Colombian trade reforms. *Journal of international Economics*, 66(1), 75-105.
- Grossmann, H., & Michaelis, J. (2007). Trade sanctions and the incidence of child labor. *Review of Development Economics*, 11(1), 49-62.
- ILO(2000). ILO(2000)"International Labour Organization, 2000. Sources and Methods: Labor Statistics, Volume 10: Estimates and Projections of the Economically Active Population. ILO, Geneva."
- Jafarey, S., & Lahiri, S. (2002). Will trade sanctions reduce child labour?: The role of credit markets. *Journal of Development Economics*, 68(1), 137-156.
- Jintong, X. (2017). Globalization and Child Labor. *Journal of International Economics & Development*. https://theses.uhn.ru.nl/bitstream/handle/123456789/4921/Jintong%2c_Xu_1.pdf?sequence=2.
- Kanbur, R., & Grootaert, C. (1995). Child labour: an economic perspective. *International Labour Review*, 134(2), 187-203.
- Kis-Katos, K., & Sparrow, R. (2009). Child work and schooling under trade liberalization in Indonesia: Discussion Paper Series.
- Kis-Katos, K., & Sparrow, R. (2011). Child labor and trade liberalization in Indonesia. *Journal of Human Resources*, 46(4), 722-749.
- Labour, I. P. o. t. E. o. C. (2002). *Every child counts: new global estimates on child labour*: ILO/IPEC.
- Lane, D. (2007). A Guide to Measures of Trade Openness and Policy: Indiana University South Bend.
- Leamer, E. E., & Levinsohn, J. (1995). International trade theory: the evidence. *Handbook of international economics*, 3, 1339-1394.

- Mahmood, Z. (1997). Research note: Determinants of under-invoicing of imports in Pakistan. *Journal of International Development: The Journal of the Development Studies Association*, 9(1), 85-96.
- Mahmood, Z., & Azhar, M. (2001). On overinvoicing of exports in Pakistan. *The Pakistan Development Review*, 173-185.
- Mohtasib, W. (2019). Wafaqi Mohtasib.2019"Report on the State of Children in Pakistan"
UNIECF<http://www.mohtasib.gov.pk/images/pdfs/SOCP.pdf>.
- Mustafa, W. (2017). Pakistan's Sindh province cracks down on child labor.
- Shamoon, N. (2019). Child Labour in Pakistan.
- Sheikh, M. A. (1974). Underinvoicing of imports in Pakistan. *Oxford Bulletin of Economics and Statistics*, 36(4), 287-296.
- Ul-Haq, J., Khanum, S., & Raza Cheema, A. (2020). The Impact of Trade Liberalization on Child Labor in Pakistan. *International Review of Applied Economics*. doi: 10.1080/02692171.2020.1782853
- Wahba, J. (2006). The influence of market wages and parental history on child labour and schooling in Egypt. *Journal of population economics*, 19(4), 823-852.
- Wu, M., Ul-Haq, J., Zafar, N. u., Sun, H., & Jiang, J. (2019). Trade liberalization and informality nexus: Evidence from Pakistan. *The Journal of International Trade & Economic Development*, 1-23.
- Zhao, L., Wang, F., & Zhao, Z. (2016). Trade Liberalization and Child Labor in China.