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Quality of Life and Globalization: Econometric Evidence from Asian Economies

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Quality of Life and Globalization: Econometric Evidence from Asian Economies

Muhammad Tariq Majeed¹
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Abstract

The impact of global integration on economic growth is largely discussed in the literature. However, little attention has been paid to analyze the association of globalization with quality of life. In particular, the role of globalization in influencing the quality of life in Asian economies has not been yet analyzed. This study investigates the effect of globalization on quality of life of Asian economies using a comprehensive measure of globalization including its disaggregated dimensions that are economic, social and political forms of globalization. The results show that globalization helps to enhance quality of life of Asian economies. All dimensions of globalization, however, are not causing significant effect on quality of life. Political globalization does not increase quality of life while other forms of globalization increase quality of life.

Keywords: wellbeing, socioeconomic globalization, political globalization, Asian countries, panel data

JEL Classification: C23, F15, P4

1. Introduction

A large number of studies have explored the role of globalization in determining economic performance (Dreher & Gaston, 2008; Dreher, Gaston & Martenns, 2008). The contribution of globalization to quality of life has received relatively less attention. The theoretical literature on the relationship between globalization and quality of life predicts mixed effect. Some studies argue that globalization increases economic growth which, in turn, improves living conditions of the citizen of a society. Globalization creates job opportunities, thereby improving the quality of life of workers.

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In contrast, some studies argue that globalization increases income inequalities and marginalizes the poor by decreasing the demand for low skilled labor (Majeed, 2015). In addition, globalization also lowers quality of life by increasing the trade of unhealthy products such as alcohol, tobacco, and processed food (Drewnowski & Popkin, 1997). Globalization increases human trafficking and also adversely affects the quality of family life (Majeed & Malik, 2017, Majeed & Kanwal, 2018).

Quality of life (QOL) is an abstract concept and usually refers to degree of choices and generally studies measure by employing income variables such as GDP per capita. Income variables do not capture social and psychological aspects of the human life and therefore income is not a suitable proxy of quality of life. Furthermore, QOL does not only depend on income and wealth status of a society but it also depends on social belongings, leisure time, health status and environmental factors (Nussbaum & Sen, 1993; Majeed & Mumtaz, 2017).

The literature has devoted substantial attention to growth effects of globalization (Dreher & Gaston, 2008; Majeed, 2016). There are few studies which have explored the links of globalization with QOL. The available studies used limited dimensions of globalization for a limited time span which does not give a clear picture of the relationship of globalization with OOL. For example, Akhter (2004) explored the role of economic globalization with wellbeing ignoring the social and political dimensions of globalization. He found a favorable impact of globalization on wellbeing; this finding cannot be generalized because globalization is a multidimensional and complex and cannot be restricted merely to economic phenomenon globalization. Similarly, Tasi (2007) also investigated the impact of globalization on wellbeing. His analysis is based on the data with 10 years interval and he did not control different dimensions of globalization simultaneously. Bussmann (2009) focused on the gender dimension of globalization to address the question whether globalization brings winner or losers using only economic dimension of the globalization. Another study by Sapkota (2011) focused on the effect of globalization on QOL using only 9 years data from 1997. These studies are limited in their scope as they use limited dimensions of globalization for a limited time span. Moreover, these studies do not provide an exclusive empirical analysis for QOL of Asian economies.

Asian economies share several similar characteristics which are different from the rest of the world. For instance, fastest growing

economies of the world are Asian. Moreover, the exposure of economies to globalization is different from the rest of the world. For instance, Nissanke and Thorbecke (2010) illustrate the differential effects of globalization on growth, inequality, and poverty in Asia, Latin America, and Africa.

Asia is the largest continent in the world and it is rich in natural resources. The economy of Asia comprises more than 4.4 billion people that is 60% of the world population. This study explores how globalization has impacted human wellbeing of Asian economies to answer the following questions: How does globalization affect quality of life in the Asian economies? Do all dimensions of globalization equally matter for human wellbeing? This study contributed in the literature through a number of ways. First, this study exclusively tests the impact of globalization on Asian economies. Second, this study does not only include economic globalization but also incorporate the role of social and political globalization. Third, this study is not restricted to few Asian economies as it expands the analysis for all available Asian economies.

The remaining study is organized as follows. A brief review of the literature has been provided in section 2. Methodology is discussed in section 3. The description of data and its sources are given in section 4. The empirical results and interpretation have been provided in section 5. Finally section 6 concludes the paper with policy implications.

2. Survey of the Literature

Theoretical literature predicts mix links between globalization and quality of life. For example, a study by Cornia (2001) suggests favorable effects of globalization on quality of life given that internal conditions of a globalizing economy are favorable. These internal conditions comprise competitive market structure, better welfare regimes, stable public policy and inclusive health services.

Similarly, Sirgy, Lee, Miller and Littlefield (2004) analyze the contribution of globalization to different forms of human wellbeing such as economic, social and consumer wellbeing. On the one hand, they predict that globalization in the form of Foreign Direct Investment (FDI) inflows enhance quality of life by creating jobs and providing low costs and superior products. On the other hand, they also argue that FDI inflows cause depletion of natural resources and loss of jobs in home economy.

Likewise, empirical literature found mixed evidence on the wellbeing effects of globalization. Using a panel data of seventy five countries and constructing a structural equation modeling, Akhter (2004) found positive and significant impact of globalization on quality of life. In the same way, Tsai (2007) empirically tested the impact of globalization on human welfare using the panel data of 112 economies from 1980 to 2000. He also found out positive and significant impact of globalization on human wellbeing. He argued that the favorable impact of globalization is mediated through political globalization. However, he also found that wellbeing effects are dissimilar across different regions of the world as South Asian and Sub Saharan African countries are at the lowest level of wellbeing.

In another study, Sapkota (2011) empirically investigated the impact of globalization on quality of life of developing countries over the period 1997-2006. He found out that overall globalization causes favorable effect on quality of life in terms of human development. In contrary the study of Shachmurove and Spiegel (2010) suggested less welfare effects in a global economy. Using a sample of 130 countries over the period 1980-2011, Jorda and Sarabia (2015) examined the effect of globalization on quality of life. They found out that globalization in general increases wellbeing in terms of better life expectancy, education and income. However, they also showed that wellbeing effects are not uniform across countries.

The literature survey suggests that the impact of globalization on quality of life has been less explored as only few studies provided empirical evidence. The literature provides mixed evidence on the effects of globalization on quality of life. Some studies only focus on economic dimension of globalization (Cornia, 2001; Akhter, 2004). Some studies cover a limited time span of studies (Tsai, 2007; Sapkota, 2011). Some studies suggest that some regions of the world are not maximizing wellbeing in a globalizing economy (Tsai, 2007; Shachmurove & Spiegel, 2010; Majeed, 2018). Given these mixed evidence at global level, it is necessary to explore the effect of globalization exclusively for a regional level.

Asian economies are fast growing economies and increasingly integrating in the global economy. Though globalization is contributing to growth of Asian economies, it is not clear whether globalization is also improving the quality of life of Asian economies. This study contributed in the literature on globalization and wellbeing through a number of ways. First, to the best of our knowledge, this is the first

study of its kind that exclusively empirically analyzes the impact of globalization on Asian economies. Second, this study extends the empirical literature using three forms of globalization that are economic, social and political globalization. Third, this study is not restricted to few Asian economies as it expands the analysis for all available Asian economies. Fourth, this study takes care of the heterogeneity of Asian economies by controlling country specific unobserved effects.

3. Methodology

Human wellbeing changes as globalization proceeds. In effect, globalization has changed every aspect of human life. Thus, it is important to understand human wellbeing in a global economy. Attaining high levels of human wellbeing is an essential goal of life. The economist and scholars have used GDP per capita as a proxy of human wellbeing (Sapkota, 2011). Though GDP per capita is positively associated with quality of life but social and physiological dimensions of human life cannot be explained with the income variable. Commission of International Development has also suggested considering health and education as measures of human wellbeing including income variable (World Bank, 2001).

The Human Development Index (HDI) is considered a comprehensive measure of quality of life. The HDI covers health and education aspects of human life including income variable. It is composed of life expectancy, adult literacy, primary, secondary and tertiary school enrolment and GDP per capita.

3.1. Empirical Model

To estimate the impact of global integration on quality of life, we follow the studies on quality of life such as Tsai (2007) and Sapkota (2011). These studies suggest that the impact of globalization on wellbeing is not contemporaneous as the effect comes with a lag. Thus, we include the lag of globalization rather than current period globalization.

QOL_{i,t} =
$$\beta_1 + \beta_2$$
GDP_{i,t-1} + β_3 OG_{i,t} + β_4 X_{i,t} +A_{i,t} + $\epsilon_{i,t}$ (1) where 'i' indicates country and 't' indicates time.

Human Development Index is used to measure Quality of life (QOL), GDP_{it-1} refers to lag of GDP per capita at constant prices in US Dollars, OG refers to overall globalization, X is a row vector which indicates control variables. This study employs age dependency ratio,

number of physicians, urbanization, education and population growth as control variables. The term A denotes the unobserved country effect that is fixed over time and has zero correlation with independent variables. Finally, ε_{it} represents residual term which is normally distributed with zero mean and constant variance.

$$QOL_{i,t} = \beta_1 + \beta_2 GDP_{i,t-1} + \beta_3 EGLO_{i,t-1} + \beta_4 SGLO_{i,t-1} + \beta_5 PGLO_{i,t-1} + \beta_6 X_{i,t} + A_{i,t} + \epsilon_{i,t}$$
(2)

To estimate the exclusive effects of different dimensions of globalization, three forms of globalization have been incorporated in equation (2). The terms EGLO, SGLO, PGLO represent economic, social and political globalization, respectively.

4. The Data

This study assembles a panel data set for all Asian economies over the period 1980-2015. The data of some Asian economies was missing and the sample size reduced to 29 Asian economies. Globalization is a multidimensional and complex phenomenon and cannot be simply represented with international trade or foreign investment. This study uses the measures of globalization from KOF² index given by Dreher's (2006). The KOF index ranges from 1 to 100, where 1 indicates the lowest level of overall globalization and 100 indicates the highest level of overall globalization.

Apart from overall globalization, the KOF index also decomposes globalization into three forms that are economic, social and political globalization. These sub-dimensions of globalization also range from 1 to 100. The variable on GDP per capita is measured as natural log of GDP per capita in US Dollars at constant prices of 2005. The variable on age dependency is measured as fraction of dependents of working population in percentage. The availability of physicians is measured as ratio of number of physicians per 1000 people. The indicator on population growth is percentage annual growth rate of population. Education is secondary school enrolment and urbanization is share of urban population in total population. The data on GDP per capita, age dependency, physician availability, population growth, education and urbanization is extracted from World Development Indicators (2014).

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Table 1 presents the descriptive statistics of the data employed for empirical analysis. The indicator on quality of life (QOL) indicates that Asian countries are quite heterogeneous in terms of their scores for QOL. For example, the lowest score of QOL is 0.44 that belongs to Saudi Arab and the highest score of QOL is 0.86 that is attained by Japan. The average score of QOL is 0.65 with a standard deviation of 0.12. Similarly, descriptive statistics for globalization and its different forms also indicate that Asian economies are quite heterogeneous in terms of global integration.

Table 1: Summary Statistics of Data

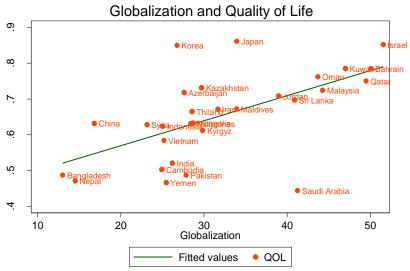
Variable	Obs.	Mean	St. Dev.	Min	Max
QOL	29	0.65	0.12	0.44	0.86
Globalization	29	32.02	10.45	13.02	51.55
Economic Globalization	29	37.92	17.82	10.46	73.95
Social Globalization	29	27.53	14.04	8.13	56.2
Political Globalization	29	30.22	15.48	8.96	62.61
GDP per Capita	29	6627	10510	361	44566
Age-Dependency	29	72.73	12.76	46.69	99.09
Urbanization	29	46.92	24.23	15.35	92.86
Physicians	29	1.19	1.18	0.052	3.75
Population Growth	29	2.55	1.37	0.61	7.22
Education	29	62.12	23.62	21.43	96.95

Overall globalization for the Asia on average is just 32 with the standard deviation of 10. The lowest level of overall globalization, 13, is related to Bangladesh while the highest level of globalization, 51, is linked with Israel. A description of different dimensions of globalization indicates that Asian countries on average have high score for economic and political globalization while comparatively low score for social globalization. These sub categories of globalization also indicate high variation across Asian countries. For example, the highest score of economic globalization is 74 while the lowest score of economic globalization is just 10.46.

Table 2 displays correlation matrix of the variables used for empirical analysis. Quality of life is positively correlated with globalization and its different forms. The correlation of overall globalization with QOL is 0.60 while the correlations of QOL with economic, social and political are 0.46, 0.60 and 0.03, respectively. The highest correlation corresponds to social globalization while the lowest correlation relates to political globalization.

Table 2: Correlation Matrix of Variables

	OOL	Glo	Eglo	Sglo	Pglo	GDP	Agedp	Urban	Phy	Pop	Edu
Too	1.0000										
Glo	0.5995	1.0000									
Eglo	0.4558		1.0000								
Sglo	0.6070		0.7967	1.0000							
Pglo	0.0305		-0.3776	-0.2644	1.0000						
GDP	0.3147		0.5343	0.6001	-0.0314	1.0000					
Agedp	-0.6658		-0.2883	-0.3312	-0.0978	-0.5558	1.0000				
Urban	0.6902		0.6244	0.7072	-0.0200	0.6953	-0.5114	1.0000			
Phy	0.3950		0.3639	0.3630	-0.2819	0.2150	-0.3194	0.5012	1.0000		
Pop	0.1107		0.6027	0.6507	-0.2842	0.7622	-0.0642	0.5655	0.0710	1.000	
	0.6438	0.5171	0.4734	0.5234	-0.1018	0.3893	-0.5394	0.7636	0.6954	0.139	1.00



The Relationship between Quality of Life and Globalization

Figure 1: Globalization and Quality of Life

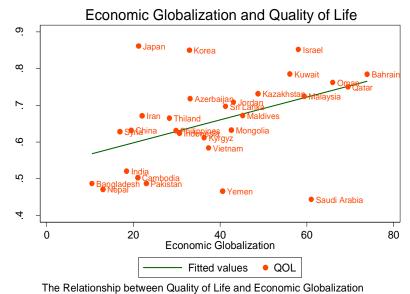
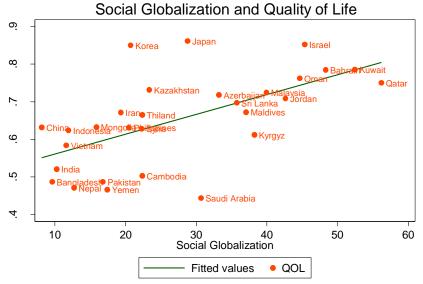
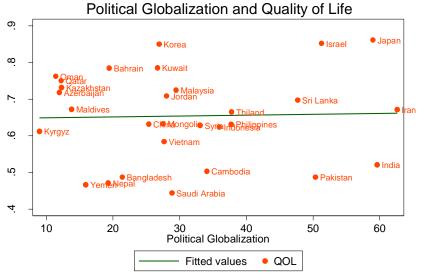


Figure 2: Economic Globalization and Quality of Life



The Relationship between Quality of Life and Social Globalization

Figure 3: Social Globalization and Quality of Life



The Relationship between Quality of Life and Political Globalization

Figure 4: Political Globalization and Quality of Life

Figure 1 captures the relationship of overall globalization with quality of life. It is evident from figure 1 that the association between overall globalization and quality of life is positive. It indicates that Asian economies having more globalization are also experiencing high quality of life. For instance, Malaysia and Qatar are more globalized and experiencing high quality of life. In contrast, Asian economies which are relatively closed such as Bangladesh and Nepal are experiencing low quality of life.

Few Asian economies are an exception to this generalized linear association. For example, Japan is showing high quality of life but overall globalization in Japan is low. In contrast, overall globalization is high in Saudi Arab but quality of life is low. Similarly, South Asian economies such as Pakistan and India are high ranked on the index of political globalization but they are experiencing low quality of life. Contrary, Qatar and Oman are low ranked on the index of political globalization but they are exhibiting high scores on the index of quality of life.

Figures 2, 3 and 4 capture the association of economic, social and political forms of globalization, respectively, with quality of life. Figures 2 and 3 also indicate that the relationship between globalization and quality of life is positive, irrespective of its dimension. Some economies such as Japan, Saudi Arab and Korea are an exception to this generalized linear relationship between globalization and quality of life. Figure 4, in contrast, shows no relationship between globalization and quality of life suggesting that political globalization is not contributing to quality of life of Asian countries.

Figures (5-8) display the intensity of different forms of globalization across different regions of Asia to exhibit relative magnitude of different forms of globalization. Figure 5 indicates that the East Asian economies are quite heterogeneous in terms of their exposure to globalization world. These economies are showing low score on social globalization while economic globalization is comparatively high in these economies. In contrast, political globalization is low in the Central Asian Economies (figure 6).

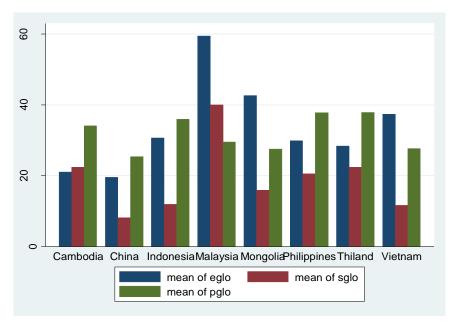


Figure 5: East Asia & Pacific Countries

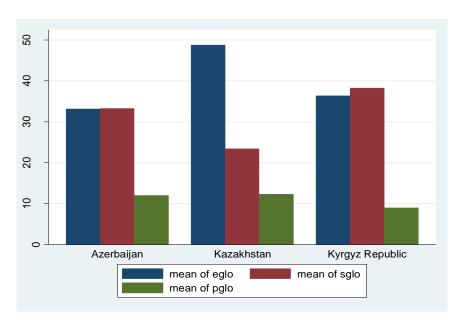


Figure 6: Central Asia

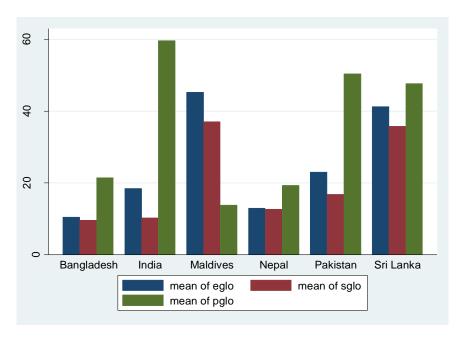


Figure 7: South Asia

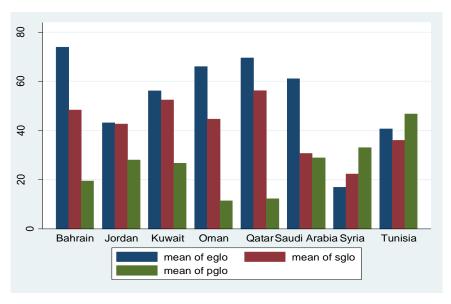


Figure 8: Arab States

South Asian countries are showing low score on all dimensions of globalization (figure 7). The score for political globalization is high in South Asian countries. Particularly Pakistan and India are showing high scores for political globalization. In contrast, political globalization is low in Arab states (figure 8). Arab countries are relatively more open in terms of economic globalization.

5. Results

Columns (1-4) of table 3 represent the effect of overall globalization on quality of life. It is evident from first four columns that globalization causes positive effect on quality of life of Asian economies. This positive effect is statistically significant in all regressions. The coefficient on globalization ranges from 0.11 to 0.15. The coefficient in column 2 implies that 1 percent increase in overall globalization leads to 0.15 percent increase in quality of life. This finding is consistent with the theoretical arguments given by Sirgy et al. (2004).

Columns (5-9) of table 3 report the results for economic, social and political globalization. All these forms of globalization also exert positive and significant influence on quality of life. The coefficient on economic globalization implies that one percent increase in economic globalization causes 0.04 percent increase in QOL. Economic globalization, in the form of increased trade and FDI inflows, creates job opportunities, improves productivity, and enhances education access and government revue, thereby leading to better life (Seker, 2009; Bernard, Jensen, Redding & Schott, 2007). The effect of social globalization is also positive and significant. However, its significance level is sensitive to the choice of control variables. Theory suggests that social integration enhances information, culture exchange and tourism exchange that help increase the wellbeing.

The effect of political globalization is also positive and statistically significant. However, its positive effect is also sensitive to the choice of control variables that are number of physicians, urbanization and education. Theory suggests that political globalization increases wellbeing by implementation of wellbeing polices related to human rights, control of epidemics and environmental degradation.

Table 3: Impact of Globalization on Quality of Life (QOL)	act of Global	ization on Q	uality of Life	(QOL)				
VARIABLES	(I) QOL	(2)	(3) 60L	(4) QOL	(S) QOL	TOÒ (9)	100 ()	(8) QOL
GDP per cap	0.051***	0.034***	0.058***	0.043***	0.056***	0.028***	0.059***	0.038***
Age Dep.	(0.009) -0.001**	(0.008) -0.001***	-0.001***	-0.001	-0.001**	-0.001***	(0.008) -0.001***	-0.001**
Globalization	0.152***	(0.000) 0.135***	0.138***	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Physicians	0.006	(6:0:0)	(6:0:0)	(0.010)	0.007			
Urbanization	,	0.001***			,	0.002***		
Population			-0.009***				-0.009***	
Education			,	0.001***			,	0.002***
Economic					0.037	0.011	0.042**	0.011
Globalization					(0.025)	(0.018)	(0.019)	(0.019)
Social					(0.021)	(0.015)	(0.016)	(0.017)
Political					0.046**	0.011	0.013	0.005
Globalization					(0.018)	(0.012)	(0.012)	(0.014)
East Asia &	-0.034	-0.001	-0.008	-0.009	-0.018	0.023	0.002	600.0
Pacific	(0.023)	(0.017)	(0.017)	(0.017)	(0.025)	(0.018)	(0.019)	(0.019)
Europe &	00.030	(0.00	(00.0-	.0.041	-0.011	(10.00	0.000	-0.03
Central Asia South Asia	-0.050**	-0.012	-0.027	-0.022	-0.029	0.019	-0.007	-0.001
	(0.023)	(0.017)	(0.017)	(0.017)	(0.025)	(0.018)	(0.017)	(0.018)
Arab	-0.030	-0.020	0.016	-0.017	-0.013	-0.014	0.028*	-0.008
Countries	(0.021)	(0.015)	(0.016)	(0.015)	(0.022)	(0.016)	(0.016)	(0.016)
Others	0.013	0.017	0.017	0.015	0.020	0.019	0.029	0.023
	(0.022)	(0.017)	(0.01/)	(0.018)	(0.025)	(0.017)	(0.0186)	(0.018)
Constant	-0.285**	-0.154	-0.28/***	-0.249***	-0.248*	0.0455	0.127	-0.046
Obcorretions	80	158	158	125	02.00	157	157	124
R-squared	0.88	0.87	0.87	0.910	0.884	0.882	0.874	0.909
Note: Standard errors in parentheses. *** p<0.01. ** p<0.05. * p<0	errors in parenth	eses. *** p<0.01	. ** p<0.05. * p					

The parameter estimate of the lag GDP per capita is positive and statistically significant implying that one percent increase in GDP per capita in previous years causes 0.01 percent increase in the index of quality of life. It is generally believed that high GDP per capita of a country improves the living standard of its citizens. This finding is similar to the findings of other studies (Anand & Ravallion, 1993; Ranis, Stewart & Ramirez, 2000; and Tsai, 2007).

The parameter estimate on age dependency indicates that 1 year increase in age dependency of an individual lowers the quality of life by 0.001 percent. Theory suggests that increasing age dependency ratio lowers the ratio of working population that in turn lowers savings and eventually welfare of an individual because the individual cannot get better housing, nutrition, sanitation and health facilities. In sensitivity analysis, some additional control variables are introduced alternatively. These control variables include physician, urbanization, population growth, and education. It is evident from all columns of the table 3 that the impact of globalization on quality of life is positive and significant irrespective of the control variable employed.

Table 4 presents the results using fixed and random effects estimation method. Columns (1-4) report the results obtained using fixed effects method of estimation while columns (5-8) present the results obtained using random effects method. All columns of the table 4 indicate that globalization causes positive and significant impact on quality of life. Table 5 reports the results using fixed and random effects model for different forms of globalization. Columns (1-5) reports the results obtained using fixed effects method of estimation while columns (6-10) present the results obtained using random effects method. The results remain same. Thus findings of the study are robust to alternative estimation methods.

8

125

(0.007) (0.000) (0.017) 0.001*** (0.000) (0.072)0.239*** 0.0317*** 23 (0000) -0.001 (0.002)(0.074)(0.007) 0.001*** .157*** (0.017) 0.208*** 0.039*** 00 00 Random Effects -0.072 (0.069)158 2 0.012* (0.007) (0000) (0.015) (0000) 0.001*** 0.147*** 0.002*** TOO 9 Table 4: The Impact of Globalization on OOL: Fixed Effects and Random Effects (0.082)88 23 (0.008) (0.000) 0.248*** 0.001*** .146*** (0.019) 0.003 (0.004) 0.047 o o 6 (0000) 0.192** (0.076) 125 0.014 (0.000)(0.000) (0.019)0.921 0.001*** .185*** 0001 00 00 € (0.009) (0.000) -0.003 158 0.8860.016* (0.019)(0.001)-0.107(0.079)TOO **⊕** Fixed Effects (0.008) -0.075 (0.000) 0.910 (0.018)(0000) 0.003*** 700હ (0.000) (0.011) -0.162*(0.091)0.91 (0.024)8 0.029** 0.001*** 0.002 (0.004)TOO \equiv Number of country VARIABLES Globalization Observations Urbanization Dependency Population Physicians R-squared Education Constant GDP per Capita

(0.000) -0.140 (0.087)

0.001***

(0.008)

(0.000) 0.057*** (0.014) 0.039*** (0.012) 0.032**

0.001***

(0.002)-0.016 (0.082)(0.007) (0.000)(0.0158)0.012 (0.013)-0.001 3 0.002*** 0.045*** 0.061*** (0.012)157 100Random Effects (0.001)(0.007) 0.001*** (0.000) 0.044** (0.013)0.050*** (0.011) 0.025** (0.011) 0.002*** (0.073)3 100 (0.005)(0.102)(0.008) 0.001*** 0.030** (0.015)0.041*** (0.015) 3 (0.000) 0.055*** (0.017) 6 100Table 5: The Impact of Different forms of Globalization on QOL: Fixed and Random Effects -0.005 0.002*** 0.013 (0.081)3 (0.007)(0.000)0.046*** (0.015) .062*** (0.012)(0.013)157 7009 0.057*** (0.000)(0.011)(0.016)0.001*** -0.132(0.091)0.918 (0.000) *** 1900 (0.015) 0.043*** (0.013)0.001*** 00 00 3 0.001*** (00000) 0.051*** (0.016)(0.016)(980.0)0.887 (0.00)0.068*** (0.012)0.00 (0.002)0.055 157 0.024 10ò Fixed Effects (0.008) (0.0140)(0.0140)0.908 0.001*** (0.000)0.0500*** .0432*** (0.0123)0.0285** 0.003*** (7.0.0)**T00** 9 0.001*** 0.057*** (0.019)(0.016) 0.062*** (0.113)0.915 (0.012)(0.000)0.030* (0.020)97 100 હ 0.052 **610.0 0.002*** 0.051*** (0.015)(0.085)(00.0) (0.000) ***1900 0.025 (0.015)157 0.88 (0.012) 100 VARIABLES Globalization Globalization Globalization Observations Urbanization Dependency Economics Population Physicians Education R-squared Countries GDP per Constant Political Capita Social

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5.1. Post Estimation Tests

To assess the consistency and strength of empirical findings, we have also conducted a post estimation analysis. Model specification is tested using Link test and Ramsey Reset, multicollinearity is examined using VIF test and finally fixed vs. random effect model is tested using Hausman test.

5.2. Model Specification Test (Link Test)

The p-values of link test of all the equations show that functional form of the model is correct. The p-value of the hat-square of link test of all the equation are significant. The results are summarized in the table.

Table 6a: Link Test: Quality of Life

QOL	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
_hat	1.345	0.276	4.89	0.000	0.801	1.898
_hatsq	-0.279	0.219	-1.27	0.206	-0.713	0.156
_cons	-0.104	0.085	-1.23	0.222	-0.272	0.064

We have also applied the test of Variance Inflating Factor (VIF) on our model. VIF test helps to detect the presence of multicollinearty in the model. The minimmum value of VIF test is 1.30 while the highest value is 7.52. however, on average the VIF value is quite low. We can infer that our results are not biased due to the presence of multicollinearty as the mean VIF value as well as the VIF of all individual variables is less than 10.

Table 6b: VIF Tests: Quality of Life

Variables	VIF	1/VIF
GDP/Capita	7.52	0.133
Urban	6.57	0.152
Education	4.51	0.222
Age-dep.	2.46	0.407
Physician	1.91	0.523
Globalization	2.56	0.390
Population	1.3	0.767
Mean VIF	3.83	

Table 6c reports Ramsey Reset Test to test the correct specification form of the model. Since P-values > 0.05, we infer that our models are specified correctly.

Table 6c: Ramsey Reset TEST (Asia)

Ramsey	RESET test
Ho: model	has no omitted variables
	F(3, 73) = 1.65
	Prob > F = 0.186

We have applied Hausman test to check which estimation techniques give us more reliable results. The test shows that p value is greater than 0.1. So there is no systematical difference between the fixed effect and random effects and we accept the null hypothesis of no systematic difference between fixed and random effects model. It means that random effects model gives more appropriate results. Finally, to assess whether these findings are sensitive to the treatment of outliers in the data, a comprehensive analysis is conducted. The results without outliers are reported in Tables A3-A6. Findings of the study remain consistent.

6. Conclusions

The objective of this study is to examine the impact of globalization on quality of life. For this purpose, the study assembles a panel data of the 29 Asian economies from 1980 to 2015. The empirical results are obtained using OLS, Fixed effects and Random effects econometrics techniques. Globalization is measured using economic, social and political dimensions.

The results indicate that globalization is an important force of improving quality of life in Asian economies. Overall globalization causes significant and positive impact on quality of life. In a disaggregated analysis, it is revealed that social and economic globalizations are contributing to improve the quality of life while political globalization is not causing significant contribution to quality of life.

Findings of the study suggest that Asian economies need to embrace globalization to enhance the quality of life of their citizens. However, they need to mainly focus on economic and social dimensions of globalization as political globalization is not helping the Asian economies to uplift the quality of life of their citizens.

The analysis also reveals that some economies such as Japan, Korea and Saudi Arab are exceptional to the generalized positive relationship of globalization with quality of life. Future research needs to focus on these economies as case studies to better understand the links of globalization and quality of life. Also, the future research needs to extend this analysis to explore the role of domestic conditions of globalizing Asian economies in shaping the links of global integration with quality of life. It is also possible that the relationship between globalization and quality of life can be potentially influenced by a confounding variable which can be analyzed by future studies.

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Appendix

Table A1: The KOF Index of Globalization	balization	
Economic Globalization	Social Globalization	Political Globalization
(i) Actual flows:	(i) Data on personal contacts:	 Embassies in country.
 Trade 	 Outgoing telephone traffic. 	 Membership in international
 Foreign direct investment flows. 	 Transfers (percent of GDP). 	organization.
 Foreign direct investment stock. 	 International tourism. 	 Participation in UN security
 Portfolio investment. 	 Foreign population (percent of total 	missions.
 Income payment to foreign 	population).	
nationals.	 International letters (per capita). 	
All above variables are taken in	(ii) Data on information flows:	
percentage of GDP.	 Internet host (per 1000 people). 	
(ii) Restrictions:	 Internet users per 1000 people). 	
 Hidden import barriers 	 Cable television (per 1000 people). 	
 Mean tariff rate 	 Trade in newspaper (% of GDP). 	
 Taxes on international trade 	 Radios (per 1000 people). 	
(percent of current revenues).	(iii) Data on cultural proximity	
 Capital account restrictions. 	 Number of McDonald's restaurants. 	
	 Number of Ikeas (per capita). 	
	 Trade in books (% of GDP). 	

Table A2: List of Asian Economies

I able A2: List	of Asian Economies			
Country	Country	l	l	Country
Azerbaijan	Indonesia			Sri Lanka
Bahrain	Iran, Islamic Rep.			Syrian Arab Rep.
Bangladesh	Israel			Thailand
Cambodia	Cambodia Japan	Malaysia	Philippines	Vietnam
China	Jordan			Yemen, Rep.
India	Kazakhstan		Saudi Arabia	

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(0.000)
(0.000)
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(0.015)

Excluding 5 extreme high values of QOL 0.053*** 0.052*** (0.000) 0.134*** (0.019) -0.008*** (0.002) -0.009 (0.017) -0.005 (0.021) 0.021 (0.016) 0.019 (0.016) 0.019 (0.096)(0.008) -0.003 0.003 0.003 0.0021 -0.020 0.017 0.015 0.018 0.018 0.018 0.018 0.018 0.018 0.018 (0.029) -0.064*** (0.023) -0.017 (0.021) 0.018 (0.022) (0.016) 0.015 (0.018) -0.249*** Excluding 5 extreme low values of QOI 0.034*** 0.058*** 0.043** Table A3: Globalization and Quality of Life: Excluding Outliers 0.017 (0.017) 0.287*** (0.016)(0.017) -0.007 (0.021) -0.027 (0.017) ...800.0 ලිල් (0.008) (0.000) 0.135*** (0.019) -0.002 0.003 0.003 0.002 -0.012 (0.017) -0.020 0.017 (0.015) -0.154 (0.000) © 5 (0.009) -0.001** (0.000) 0.152*** (0.024) -0.034 (0.024) -0.036 (0.029) .0.050** (0.024) -0.031 (0.021) 0.013 (0.023) (0.114)Ξġ VARIABLES Globalization Observations GDP per cap Urbanization Europe & Central Asia East Asia & Physicians Population Education South Asia Countries Age Dep. Pacific

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R-squared

(0.000) -0.009 (0.007)-0.001 (0.000)(0.017)-0.041* (0.021)-0.022 -0.015 (0.015)0.014 (0.018)122 0.91 0.043 *** (0.017) (0.096)(0.019) 0.237** 0.002*** Excluding 5 extreme high values of Globalization (8) 00I (0.017) 155 -0.026 0.018 (0.016)(0.000)(0.019)(0.002)-0.005 0.013 (860.0) (0.007)0.001*** 0.135*** ***600.0-(0.021)(0.016)0.058*** (0.017) €<mark>0</mark> -0.010 -0.019 155 0.004 0.014 (0.008) 0.001*** (0.000)0.134*** (0.019)0.001*** (0.000) (0.021)(0.015)(0.017)-0.152 (0.103)0.035*** (0.017) (0.017)©00 900.0 (0.002) -0.030 (0.000)(0.000) 0.151*** (0.024)-0.035 (0.030)(0.024)(0.021)0.012 0.051*** -0.001** -0.033 -0.049** (0.023)(0.118)(0.024)-0.283** (S) (0.000) -0.000 125 0.91 -0.009 (0.017)-0.016 0.014 (0.007)(0.018)(0.021)-0.022 (0.093) 0.043 *** 0.001*** (0.000) -0.041* (0.017) (0.015)(0.017)-0.249*** OOL Excluding 5 extreme low values of Globalization € Table A4: Globalization and Quality of Life: Excluding Outliers (0.000) (0.017) 0.016 (0.015)158 (0.017)0.017 (0.007)(0.019)***800.0-(0.002)-0.007 -0.027 (0.016)(0.095)0.058*** 0.001*** -0.008 (0.021)OOL -0.020 (0.100)158 (0.008)(0.000) 0.135*** 0.002 (0.015)0.017 (0.017) (0.019)(0.000)-0.001 (0.017) (0.021)-0.011 0.034*** -0.001*** 0.001*** (0.017) OOL (0.001) 0.006 (0.022) (0.114) 98 0.88 -0.036 0.013 (0.000)-0.001** (0.024)-0.034 (0.023)(0.021)(0.029).0.050.** -0.031 0.051*** (0.023) OOL VARIABLES Globalization Urbanization Observations GDP per cap Central Asia East Asia & Physicians Population South Asia Education R-squared Europe & Countries Age Dep. Constant Pacific Others Arab

Outliers	
Excluding	
of Life:	
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Globalization a	
Table A5: (

rable Ast Global	mzation and Quanty of the: tacidumg Outhers	anty of Line.	S		(4)	97	6	(0)
	(T)	(7)	(5)	(4)	(c)	(0)	(\cdot)	(8)
VARIABLES	OOL	OOL	OOL	OOL	OOL	OOL	OOL	OOL
	Exclud	Excluding 5 extreme low values of QOI	low values of	Too	Excludin	ig 5 extreme	Excluding 5 extreme high values of QOI	Too
GDP per cap	0.056***	0.028***	0.0588***	0.038***	0.045***	0.025***	0.052***	0.031***
	(0.010)	(0.008)	(0.007)	(0.008)	(0.010)	(0.008)	(0.007)	(0.008)
Age Dep.	-0.001**	-0.001***	-0.001***	-0.001**	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Economics	0.036	0.011	0.041**	0.010	0.035	0.012	0.038**	0.008
Globalization	(0.024)	(0.018)	(0.018)	(0.018)	(0.024)	(0.018)	(0.018)	(0.018)
Social	0.044**	***690.0	0.043 ***	0.062***	0.046**	***L90.0	0.044***	0.064***
Globalization	(0.021)	(0.015)	(0.015)	(0.017)	(0.020)	(0.015)	(0.015)	(0.016)
Political	0.046**	0.011	0.013	0.004	0.032*	0.005	900'0	-0.002
Globalization	(0.018)	(0.012)	(0.012)	(0.014)	(0.018)	(0.012)	(0.012)	(0.014)
Physicians	0.007				0.005			
	(0.000)				(0.006)			
Urbanization		0.001***				0.001***		
		(0.000)				(0.000)		
Population			***600.0-				***800.0-	
			(0.002)				(0.002)	
Education				0.001***				0.001***
				(0.000)				(0.000)
East Asia &	-0.018	0.023	0.002	0.00906	-0.019	0.021	0.002	0.007
Pacific	(0.025)	(0.018)	(0.0189)	(0.018)	(0.024)	(0.018)	(0.018)	(0.018)
Europe &	-0.018	0.022	0.000	-0.034	-0.014	0.021	0.001	-0.034
Central Asia	(0.031)	(0.022)	(0.023)	(0.023)	(0:030)	(0.022)	(0.022)	(0.022)
South Asia	-0.029	0.019	-0.007	-0.000	-0.042*	0.011	-0.013	-0.011
	(0.024)	(0.017)	(0.017)	(0.017)	(0.024)	(0.017)	(0.017)	(0.017)
Arab	-0.012	-0.014	0.028*	-0.007	-0.001	-0.004	0.0324**	-0.000
Countries	(0.022)	(0.015)	(0.016)	(0.016)	(0.021)	(0.015)	(0.015)	(0.015)
Others	0.020	0.019	0.028	0.023	0.024	0.019	0.028	0.025
	(0.024)	(0.017)	(0.017)	(0.018)	(0.024)	(0.017)	(0.017)	(0.018)
Constant	-0.248*	0.045	-0.127	-0.046	-0.086	0.113	-0.028	0.066
	(0.137)	(0.107)	(0.107)	(0.113)	(0.140)	(0.108)	(0.109)	(0.114)
Observations	16	157	157	124	92	152	152	119
R-squared	0.88	0.88	0.87	06'0	0.88	0.87	0.87	06'0
Note: Standard errors in parentheses	in parentheses							

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(0.008) (0.000)0.010 0.009 (0.023)-0.000 (0.016)(0.018)-0.046 ***90.0 0.0049 -0.034 -0.007 0.023 Excluding 5 extreme low values of Globalization Forms Excluding 5 extreme high values of Globalization Forms (0.018)(0.017)(0.014)(0.000) (0.018)(0.017)(0.113)0.001*** 0.038*** 00 (0.007) (0.016)(0.000)(0.015)0.013 (0.012)(0.002)(0.018)(0.023)-0.007 (0.017)0.027* 0.028 (0.017)-0.127(0.107)0.041** (0.018)0.043*** ***600.0 0.0020 0.0007 157 0.058*** 00(0.008)0.019 0.019 (0.000)0.011 (0.018)(0.013)0.013 (0.000)(0.018)0.022 (0.022)(0.017)-0.014(0.015)(0.017)0.045 (0.107)157 0.001*** (0.011)0.001*** ***690.0 OOL ම (0.010) 0.036 -0.018-0.018 (0.031)-0.029 0.020 (0.000)(0.024)(0.021)0.046** 0.007 (0.000) (0.025)-0.012(0.024)(0.137)(0.018)(0.024)(0.022)0.248* 0.056** 0.044** OOL 0 (0.008) (0.000)0.010 0.062*** -0.034-0.000 (0.016)-0.046 (0.017)0.004 0.009 (0.018)(0.023)-0.007 0.023 (0.018)(0.113)(0.018)(0.014)0.001*** (0.000)(0.017)0.038*** 0 0 € Table A6: Globalization and Quality of Life: Excluding Outliers (0.007) (0.015)(0.016)0.028 (0.000)0.013 (0.012)***6000.0 0.000 (0.023)(0.017)0.027* (0.017)(0.107)(0.018)(0.018)-0.007 -0.1270.058*** 0.041** 0.043*** (0.002)OOT (0.008) 0.019 0.011 (0.015)0.019 -0.014(0.015)0.045 (0.000)0.011 (0.012)(0.000)(0.022)(0.017)(0.017)0.0282*** (0.018)0.001*** (0.018)0.022 0.107) ***690.0 OOL 0.036 (0.024)0.044** 0.88 Note: Standard errors in parentheses (0.000)(0.021)(0.006)-0.018 (0.025)-0.018 (0.031)-0.029 (0.024)-0.012(0.022)0.020 (0.024)(0.010)0.001** 0.007 (0.137)97 0.056*** 0.046** (0.018)0.248* 00 VARIABLES Globalization Globalization Globalization Observations Urbanization GDP per cap Central Asia East Asia & Economics **Physicians** Population South Asia R-squared Education Europe & Countries Age Dep. Constant **Political** Pacific Others Arab Social

*** p<0.01, ** p<0.05, * p<0.1

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