Regulatory Quality and Employment Generation: Empirical Evidence from selected Developing Economies of Asia

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Abstract

Theory of economic regulation gained importance in economics literature in the era of 1990s. Market failure caused by market imperfections has legitimized government intervention and regulation in the economic affairs of state. But positive response to regulation in developed countries and failure of regulatory institutions in developing countries have created doubts about the role of regulation in developing countries. This study is an effort to explore relation between regulatory quality and employment generation in 6 developing economies of Asia namely China, Indonesia, Malaysia, Pakistan, Philippines and Thailand, using data from 1996 to 2011. Panel Model has been assessed by using fixed effects technique and Generalized Method of Moments (GMM). We have found a strong positive effect of regulatory quality on level of employment in selected economies. We suggest enhancing quality of regulatory institutions to tackle the issue of wide range unemployment in developing economies like of Asia.

Key Words: Regulatory Quality, Employment, Governance, Fixed Effects, Developing Economies, Institutions

1. Introduction

Economic growth and development are thought to be greatly affected by regulatory quality of government by the researchers and practitioners now a day (e.g. World Bank, 2004). Government can regulate economies in many ways and developing countries have used different options in this regard over the time. In the era of 1960s to 1980s, the logic forwarded for the intervention of government in economy was the failure of markets. Thus government intervention in productive activities directly through investment in agriculture and industry and enhancing imports for industrialization, or by promoting privatization (Jalilian, Kirkpatrick, & Parker, 2007).

A World Bank report in 2005 has indicated that due to the failure of state regulation in many of the developing and countries while success in developed nations has created doubts about the role of regulation. Thus now the role of government regulation has been more in depth demarcated. Now that regulation is supported which help competitive markets to function more properly. Deregulation often imposed as a subset of structural adjustment programs of the economies. Developing countries have faced a lot of issues and problems in the face of their

liberalization and privatization programs which has reinforced the need for a regulatory state in these countries (Majone, 1994, 1997).

Such models imply state regulation only in those areas which cannot perform well in the absence of state regulation leaving all others in free competitive environment. But developing countries owing to their poor governance structures and low quality of regulatory institutions have very remote prospects of success in this context. The success of this state in developing economies greatly depends on the quality of regulatory institutions. Thus the quality of the institutions will determine the efficiency of the markets in these economies. Regulatory quality will affect the outcomes of regulation in terms of market effectiveness and thus the pace of economic growth and level of employment in that particular economy (Jalilian, Kirkpatrick, & Parker, 2007).

The paper is an attempt to explore impact of regulatory quality of the government on level of employment in the economy through the use of an econometric model. Government can use many types of regulatory policies to affect employment in the economy. Policies aimed at enhancing GDP growth, generation of employment opportunities along with increased wages lead to reduce poverty in economy. Public spending for health, education and infrastructure are the major public policies in this regard. Economic theory predicts that public spending corrects the market failure created by negative externalities like pollution. Public regulatory policies like taxes and subsidies can be used to create positive externalities through public provision of education and health. Thus in case of pure public goods government intervention becomes inexorable. Theoretically, distribution of resources in a market base economy remains unequal and government has to intervene to compensate the unprivileged poor classes through regulation. Education and health spending promote employment and productivity and help government to make an efficient allocation of resources leading to higher level of employment (Hassan, 2008). Governments also use subsidies as a regulatory policy to generate employment. These normally depend on the recruitment, existing and change in employment stock. Different types of labor with respect to their age, gender, religion, time duration of unemployment or education or in general may be addressed with these subsidies. The subsidy can take form of either direct payment to labor or employer or can be granted via tax credit schemes (Bishop & Haveman, 1979). Earlier many researchers have explored impact of governance on economic growth like (Olson, et al.,1998; Kauffman and Kraay, 2002), but we in this paper have focused only one dimension of governance and checked its impact on the level of employment in the economy rather than GDP growth. Results of the study have confirmed the fact that a good state of regulatory quality affects level of employment positively.

Rest of the paper is organized as follows; section 2 is a brief review of the literature, section three creates theoretical support for the study and derives hypothesis. Section4 explains the data used and estimation technique applied for the analysis. In section 5 and 6 we have discussed the results and concluded our research respectively.

2. Literature Review

Effectiveness of the regulatory quality of any economy is measured through its success in achieving the welfare goals of the state. If the goal of development, employment and poverty reduction of the economy has been achieved then it means the institutions have delivered their potential. Efficiency of the regulatory quality requires that these welfare oriented goals must be achieved at minimal costs. Economic costs of these regulations are two one is the administering cost and other is the compliance cost (Guasch and Hahn, 1999). Good governance of

the economy is another criterion to check the outcome of the regulatory quality. A developed institutional structure enhances the regulatory efficiency of the economy and hence its development and employment (Parker1999: 224).

In developing countries regulation has given disappointing outcomes. (Jacobs, 2004) have blamed this failure to the low quality and untrained regulator staff of these regulatory institutions in his study of 13 Asian economies. While (Ugaz, 2003) have put the blame on the lack of political will and support for the regulatory institutions in case of Latin America.

Individual country studies have also identified reasons for the failure of regulatory policies in different developing economies. Like in India poorly built institutions and bureaucratic malpractices have caused failure of the regulation there (Lanyi, 2000). Similarly lack of transparency in the responsibility structure of the regulatory authorities in South Africa, dependency of industry regulation on state regulation in Malawi, political biasedness in policy making in Sri Lanka are some other reasons limiting the efficiency of regulatory policies (Schwella, 2002: 3) and (Knight-John, 2002). Due to this dilemma, the World Bank (2001: v) has stressed the importance of

> "Improving regulatory regimes and building institutions and capacity effectively to supervise the
> private sector"

Owing to above phenomenon literature has greatly emphasized the need for improving the regulatory quality of the institutions to make the economies perform better. In this regard regulatory quality is the major variable. Two major indicators of governance are mainly used by the researchers to judge the regulatory quality. They are ICRG (international country risk guide) covering political, economic and financial risk facing the economy published by political risk services group (Neumayer, 2002; Olson et al., 1998). Second measures of governance quality are world governance indicators consisting of six aggregate indicators (Voice and accountability, Political instability, Government effectiveness quality, Rule of law and Control of corruption) . data is derived fron 194 measure by World Banks (Kauffman, Kraay and Mastruzzi 2005).

We have focused on the regulatory quality and have taken it form the world governance indicators as we are interested to check its impact on the level of employment. Regulatory quality index is constructed to measure the burden of regulation on business due to the inefficiency of the quantitative controls and is used as a proxy for the effectiveness of the results of the applying regulatory instruments.

Most of the literature available on the regulatory quality normally correlates it with economic performance, GDP growth and economic development. From this notion we have cited these studies to create their link with employment generation because if regulatory quality is affecting economic performance and per capita income positively then we can induce that it must be affecting employment positively as well. Kauffman et al (2005: 38) established a positive link between incomes per capita and good governance in cross country regressions. They suggested on the basis of empirical evidence that governance increases per capita incomes.

(Jalilian, et al., 2007) applied two different econometric techniques to explore the impact of regulatory quality on economic performance and came to the same conclusion that regulatory quality has a strong causal relationship with economic performance of the economy. Thus he suggested that in developing economies only regulatory policy design should not be a focus but a similar attention must be paid to the quality and capacity of institutions supporting regulation.

(Besley & Burgess, 2004) examined the regulation of industrial relation impact on manufacturing growth in India from 1958-1992. They found that a low level of production, employment and investment was experienced by the states that modified Industrial Disputes Act in favor of workers. While unregistered manufacturing sector raised their employment level in this period. This pro-worker regulation also increased poverty in the urban areas. Their findings suggested that all the efforts to rebalance authority and power in labor-capital relations resulted in rising poverty in the economy of India.

(Bardhan & Mookherjee, 2006) empirically examined a longitudinal sample of 89 West Bengal villages targeting their credit, agricultural input kits, employment programs and fiscal grants from the period of 1978-98. The study was to test the hypothesis that decentralization (a type of regulation) results in the capture of local government by the local elites due to extreme poverty, inequality and lesser political competition at local level. Poor were adversely affected by this regulation mainly due to their extreme poverty, land inequality and low caste composition. While this regulation and decentralization generated very few jobs having negligible impact on employment rate out of the funds allotted for this very purpose. Thus regulation and decentralization failed in Bengal to generate employment for the rural population.

(Hassan, 2008) claimed that Economic growth, employment and wages helped a great deal in breaking the vicious circle of poverty in Bangladesh. Data from 1995 to 2006 was used to determine a link between public spending, employment and poverty for the Bangladesh economy in an analytical framework. Study first analyzed impact of public expenditures on determinants of GDP growth and the on poverty status. The study has claimed that poverty is affected by the public spending through the channels of economic growth, generation of employment opportunities and by increasing wages. Government intervention through spending on education, health and infrastructure reduce poverty significantly. Study recommended diverting public expenditures to pro-poor sectors. The results of the study are not significant enough due to the interpolation of poverty and employment and very small observations on disaggregated expenditures.

We also have studies quoting impact of different individual regulatory policies of the government on labor demand, labor composition and employment. We will also cite some of them here to support our proposed link between regulatory policies and employment.

(Morrison Paul & Siegel, 2001) simultaneously assessed the impacts of trade, technology, and outsourcing on shifts in labor demand using a dynamic cost function framework and comprehensive measures of workforce composition and investment in technology. He found that technology was major factor affecting the shifts in labor demand, while trade by influencing computerization and then labor demand had indirect impact. The paper has used a dynamic flexible cost function, this simultaneous model allows the adjustment of capital in accordance with price changes and recognizes the difference between short and long run equilibrium which was a weakness of earlier studies. Many possible determinants of labor demand have been included in the model and effects of labor composition are also deeply analyzed. Technology is found to have greater effects on employment and labor composition then trade or outsourcing by favoring highly educated labor force. Trade affects the demand for less educated workers negatively. Interaction of trade and computerization reflects that trade increase the pace of computerization which affects the demand for labor without college degree negatively and the demand for labor with college degree positively.

Subsidies are also a tool for the government to regulate economy and to generate employment. As (Bishop & Haveman, 1979) stated that due to grant of subsidies Oken's law may be canceled out because it reduces unemployment in larger number than the rise in labor force participation rate. Policy brings results by increasing the GDP and by the redistribution of the costs of unemployment. The authors concluded that SESP help reducing unemployment, composition of labor is also improved, NAIRU can be reduced, and prices are reduced as well. But for the sake of this benefit subsidies do incur cost as well. There are problems in the administration of the SESP, they can turn-over the labor, and favors fast growing regions, may cause displacement of workers in case of targeted selective group subsidies.

Wage subsidies and employment subsidies are now given the name of employment tax credit mostly applied to a particular group of workers. In the rigid wage regions wage subsidies prove more powerful than the subsidy on capital or output or tariff. Kaldor (1936) claimed that ETC under different reasonable assumption can be the most favored policy for generation employment in the economy. 1949 to 1977 Ragnar Frisch also explained the concept of ETC at macro level. ETC van be in many shapes, it can be a tax credit to firms in proportion their employment, it can be fixed amount per man per hour employed, it can be provided to the firms in a certain percentage of their wage bill and lastly it can be a wage rate subsidy here credit is given proportional to man hour and inversely proportional to wage rate. The authors proposed an alternative to the historical experience of US from 1962 to 1971 and compared ETC with ITC (investment tax credit). There is a modest gain in total employment expansion from specifying an ETC as an amount per man-hour rather than as a percent of wage bill. They claimed that applying ETC reduce production cost the level and distribution of employment is also affected considerably(Jonathan (Kesselman, Williamson, & Berndt, 1977).

Government also uses its regulatory authority via support pricing of agricultural products which results in the change of employment level and patterns in the economy. Studies to check the impact of NAFTA mandatory reduction in the support price of corn claimed that it decreased the rural employment and wages along with higher trend of rural urban migration. Authors in this study have considered the sectorial divergences of farm household economies by modeling an alternative approach. Using a village-town CGE model and micro survey data, they proved that the liberalization of staple prices in Mexico exerted very little effects on the rural wages because of the substitution of resources by the farmers. Thus liberalization had positive effect on their incomes generally. They stated that price decoupling policies may enhance staple production in some areas of subsistence economies (Taylor, Yúnez-Naude, & Dyer, 1999).

(Berck & Hoffmann, 2002) examined four different approaches to check the environmental and natural resource policy on employment and Environmental and natural resource policies can affect employment through two major paths of action: actions that change the availability of a factor and actions that change the cost of production.

Regulation can also be imposed by regulating international trade. Many empirical findings have been quoted in the literature giving mixed impact of trade and outsourcing on labor demand. Katz and Murphy (1992) claimed that relative wage change was not caused by increased import intensity. Lawrence and Slaughter (1993) by considering the stopler- samuelson theorem proved that labor demand was not influenced by trade across different industries. (Sachs, Shatz, Deardorff, & Hall, 1994) said that technology changes have stronger impact

on labor demand than trade. Moreover (Revenga, 1992) said that in US manufacturing industries wages and employment were negatively affected by the rise in trade volume.

3. Theoretical framework

Economic regulation theory was introduced in the literature for the first time (Jalilian, et al., 2007). Economic regulation is supported due to the failure of market economy caused by economies of scale in production, imperfect information and imperfect markets, externalities and improper wealth and income distribution in market economy. Developing countries owing to their poor and in-transparent economic and political structures face market failure with intense magnitude and hence need government regulation (Stiglitz, 1998).

But it is always not necessary that regulation will bring better results than the market system. The same imperfections which reduce efficiency of the markets to deliver may also hinder the performance of the regulatory policies (Djankov et al., 2002). (Shapiro & Willig, 1990) stated that if state has both the ownership and regulatory authority then it will bring better results and gap of information will not be created. But in case of state ownership the incentives to best utilize the resources become sluggish and results in poor performance of regulation as well (Hayek, 1945).

For regulation to bring better economic welfare outcomes, it must be free of personal interest of the politicians. Because if political biasedness is not ruled out from the regulatory process it will always bring sub-optimal results for the economy and society due to poor bargaining between different interest groups (Newbery, 1999: 134; also, Laffont, 1999b). Regulators normally make decisions in the favor of producers from where they can reap highest benefits of the rent seekers under the dilemma of regulatory and producers capture (Reagan, 1987). However political capture is even greater threat where regulation is imposed to meet political ends only. Thus the regulatory quality of any economy and their expected outcomes in terms of economic welfare must be framed in the context of their institutions. Economic development, efficiency of production and exchange of any economy are determined by the rules set by the institutions of that economy (Jalilian, et al., 2007).

"Institution building" which also includes the development of the an effective regulatory regime is a major problem faced by the economies passing from their transition and development phase at present (Kirkpatrick and Parker, 2004). Coming to the particular relationship between different regulatory policies of the government and employment we have individual correlational studies creating this link. Government intervention to create jobs through government expenditures, subsidies, trade regulation, agricultural and environmental policies exerts impact on employment in different ways.

Theoretically higher public spending stimulates aggregate demand. As the demand for labor is also derived from aggregate demand, it also raise the level of employment and productivity, higher productivity increase wages and accelerates GDP growth of the economy (Hassan, 2008). Thus government intervention through public spending leads to higher employment and economic growth. While trade increases the wage gap in the country; according to the Stopler-Samuelson[1] theorem cheap imports from abroad will decrease the wages of low skilled labors and increase those of with higher education and skills (Morrison Paul & Siegel, 2001). Thus trade affects the employment and composition of labor in the country.

Another type of government regulation is made through subsidies. Theoretically subsidies reduce the cost of labor which encourages employment and reduce the cost of production in the competitive markets due to increase in production at higher employment rate and, in the case of marginal stock subsidies, entry will be encouraged. Moreover firms which are in the business of exporting also get the benefit from SESP (selective employment subsidies) in the shape of export subsidies. Firms bear labor cost earlier in case of temporary subsidy which results in the accumulation of inventories and increased investment. This will lead to increase the labor hiring in addition to the normal; requirement. Thus subsidy results in job creation in the economy (Bishop & Haveman, 1979).

Hypothesis: On the basis of all above discussion we propose a significant relationship between regulatory quality and employment. The direction of movement of which will be determined after empirical testing. In the next sections we will test this hypothesis with the help of econometric technique.

4. Data and Methodology

Two major indicators of governance are mainly used by the researchers to judge the regulatory quality. They are ICRG (international country risk guide) covering political, economic and financial risk facing the economy published by political risk services group (Neumayer, 2002; Olson et al., 1998). Second measures of governance quality are world governance indicators. We have focused on the regulatory quality and have taken it form the world governance indicators as we are interested to check its impact on the level of employment. Regulatory quality index is constructed to measure the burden of regulation on business due to the inefficiency of the quantitative controls and is used as a proxy for the effectiveness of the results of the applying regulatory instruments. The index value lies from 0 to 100 where 100 denote highest score on the regulatory quality performance and 0 stands for the poorest performance. The dependent variable of study is the employment level which is measured in thousands and it's data has been collected from the International labor organization (ILO) data base. The data of the control variables has been obtained from world development indicators (WDI) data base and they are: Trade openness, Terms of trade, capital labor ratio and gross domestic product. Trade openness is the ratio of trade volume to gross domestic product (GDP), terms of trade is the ratio of export price index to import price index, capital labor ratio is the ratio of gross fixed capital formation to total labor force, gross domestic product (GDP) is the total market value of all final goods and services produced with in the geographical boundaries of a country. Based upon the variables discussed above following double log basic econometrics model has been formulated for the analysis.

$$LEmp_{it} = \beta_0 + \beta_1 LREGQ_{it} + \beta_2 LTOT_{it} + \beta_3 LGDP_{it} + \beta_4 LCLR_{it} + \beta_5 LTO_{it} + \varepsilon_{it}$$

Where:

Emp_{it} =Total employment in thousands of country i at time t

$REGQ_{it}$ =Regulatory quality of country i at time t

TOT_{it} = Terms of trade of country i at time t

GDP_{it} =Gross domestic product of country i at time t

CLR_{it} = Capital labor ratio of country i at time t

TO_{it} = Trade openness (Exports + Imports / GDP) of country i at time t

ε_{it} =Error Term   i =Country (i =1,2,3,……….6)   t =Years (t = 1996,1997,……….2011) L = Natural logarithm

Hausman test has been applied to the given model in order to determine whether fixed effect estimator is a better measure or random effect model is more appropriate, based upon the results of hausman test fixed, effect is found to be more relevant measure and results of fixed effect model are given in table 2,in table 3 are the results of fixed effect model with Robust standard errors, in table 4 are the results of Generalized Method of Moment (GMM).

5. Results and Interpretations

At the beginning, the model has been estimated by using both fixed effects model and random effects model. Then Hausman test has been applied to check whether it is appropriate to use fixed effects model or random effects model for estimation of the model, given below are the results of Hausman test.

Table 1 Hausman Test

Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
169.11	5	0.0000

The results of the Hausman Test, The Chi-Sq. Statistic and p-value show that the value of chi2 (169.11) is greater than probability (0.000) and as the value of probability is 0.000 which is less than 5% level of significance (0.05) so we reject the null which states random effect is better and conclude that the fixed effect model estimation is more appropriate . Therefore, econometric model has been estimated by using the fixed effects model and results are given below

Table 2, Results of Fixed Effect Model

Dependent variable=Lemp

Variables	Coefficient	Standard Errors	t-value	Probabilities
LREGQ	.0729	.0264	2.76	0.007***
LTOT	-.0733	.0289	-2.53	0.014**
LGDP	.4557	.0281	16.19	0.000***
LCLR	-.2018	.0256	-7.87	0.000***
LTO	-.1586	.0374	-4.24	0.000***
C	.4621	.7599	0.61	0.545

*F statistics = 227.73, Prob. > F = 0.0000. *** shows 1%, ** shows 5%, level of significance, respectively.*

The result obtained by applying fixed effect model reveals that the coefficient of our main variable of interest that is the Regulatory Quality (shows the capacity of the government in the formulation and implementation of effective policies and regulation which enhances the functioning of private sector development) is positive and statistically significant as well which means that if the regulatory quality is improved then it leads to increase in the employment level , By improving the Regulatory Quality we can enhance the employment level, so the problem of unemployment can be tackled by improving the Regulatory Quality. The next variable is terms of trade which is having negative sign of coefficient and the variable is statistically significant as well, it shows that

an increase in terms of trade leads to reduce the employment, it may happen in two ways, on one hand an increase in terms of trade means that domestic goods and services are expensive and it may lead to reduction in export of goods and services, which may lead to reduction in economic activities of export oriented industries domestically and ultimately reduction in employment, on the other hand an increase in terms of trade means that foreign goods are cheaper than that of domestically produced goods which may result in increase of import of foreign goods and domestic goods may be substituted with foreign goods, this may lead to reduction in economic activities of the import substitution industries which ultimately may lead to reduction in employment. The coefficient of gross domestic product is positive and variable is statistically significant which shows that an increase in economic growth leads to increase in employment, it is quite obvious as an increase in economic growth means an increase in overall economic activities of the country which will eventually enhance the employment in the countries as more labor will be required to meet the growing needs of the economy. Capital labor ratio has negative impact on employment generation as depicted by the results it has negative coefficient and the variable is statistically significant as well, it is in accordance with the theory as this ratio goes up it means capital is used in larger proportion as compared to labor so it leads to capital intensive method of production which results in labor saving process eventually reducing employment level. Trade openness is found to negative and statistically significant and it may seem to be unusual but may happen due to the fact that trade openness brings modern technology in the country through imports. This technology can increase the productivity of labor. But what are the consequences if this modern technology replaces labor force and leads to capital intensive production both in export oriented and import substitution industries. If this happens, then demand for labor decreases as firms hire less labor force and this leads to less employment. Another channel may be that a country can import goods from abroad which are cheap as compared to produced domestically, this may lead to less demand for labor in import substitution industries and it can ultimately cause lower employment level. Intercept bears the positive sign but it is statistically insignificant.

Diagnostic Tests

a. Wald test for GroupWise heteroskedasticity

H0: sigma(i)^2 = sigma^2 for all i

chi2 (6) = 20.45   Prob>chi2 = 0.0023

The results of Wald test for group wise heteroskedasticity show that we can reject the null hypothesis of no group wise heteroskedasticity as the value of probability is 0.0023 which is less than 5% level of significance (0.05),so we can conclude that there is problem of group wise heteroskedasticity.

b. Wooldridge test for autocorrelation in panel data

H0: no first order autocorrelation

F(1,   5) = 15.518   Prob > F = 0.0110

The results of Wooldridge test show that we can reject the null hypothesis of no auto correlation as probability value is 0.0110 which is less than 5% level of significance (0.05), so we conclude that the problem of auto correlation exists.

c. Pesaran's test of cross sectional independence

Pesaran's test of cross sectional independence = -0.070,   Pr = 0.9441

Average absolute value of the off-diagonal elements = 0.345

The results of Pesaran's test of cross sectional independence show that there exists no cross sectional dependence as null of cross sectional independence is not rejected as p value is 0.9441 which is greater than 5% level of significance (0.05).

As the results of diagnostic tests show that the model suffers from the problem of GroupWise heteroskedasticity and autocorrelation, so it is necessary to take into account these problems in order to have reliable results. In order to tackle the problem of GroupWise heteroskedasticity and autocorrelation, white period standard errors and Generalized Method of Moment (GMM) have been used respectively, so the results obtain are free from heteroskedasticity and problem of autocorrelation is handled.

Here below are the results obtained by robust standard errors that are free from heteroskedasticity and it shows that all variables retained the same sign as the earlier results with the only difference that the variable "terms of trade" is turned out to be statistically insignificant now.

Table 3 Results of Fixed Effect Model with Robust Standard Errors

Dependent variable=Lemp

Variables	Coefficient	Robust Standard Errors	t-value	Probabilities
LREGQ	.0729	.0327	2.23	0.076**
LTOT	-.0733	.0480	-1.53	0.187
LGDP	.4557	.0211	21.56	0.000***
LCLR	-.2018	.0618	-3.26	0.022**
LTO	-.1586	.0397	-3.99	0.010***
C	.4621	.6825	0.68	0.528

*** shows 1%, ** shows 5%, level of significance, respectively.

Given below are the results obtained from GMM ,which accounts for the problem of autocorrelation, there are two main differences with the original results, one the variable "terms of trade" is turned out to be statistically insignificant and number two "the intercept" has changed its sign, it has turned negative from positive but still insignificant, rest of the variables retained the same sign but are highly statistically significant now and our main findings are same as from the original estimation, so we may say that our results may be reliable.

Table 4 Dynamic panel-data estimation (GMM Results)

Number of instruments = 55	Wald chi2(5) = 551.96
One-step results	Prob > chi2 = 0.0000

Dependent variable=Lemp

Instruments for differenced equation   Instruments for level equation

GMM-type: L(2/.).lemp   Standard: _cons

Variables	Coefficient	Standard Errors	z-value	Probabilities
LREGQ	.1221	.0190	6.41	0.000***
LTOT	-.0070	.0252	-0.28	0.781
LGDP	.4824	.0371	13.00	0.000***
LCLR	-.2704	.0359	-7.53	0.000***
LTO	-.1286	.0385	-3.33	0.001***
C	-.2616	.8433	-0.31	0.756

*** shows 1%, ** shows 5%, level of significance, respectively.

6. Conclusion

Theory of economic regulation gained importance in economics literature in the era of 1990s. Market failure caused by market imperfections has legitimized government intervention and regulation in the economic affairs of the state. But positive response to regulation in developed countries and failure of regulatory institutions in developing countries have created doubts about the role of regulation in developing countries. This study is an effort to explore relation between regulatory quality and employment generation in 6 developing economies of Asia (China, Indonesia, Malaysia, Pakistan, Philippines and Thailand) from 1996 -2011. Panel Model has been assessed by using fixed effects technique. Pesaran's test of cross sectional independence is applied in order to check if there is any cross sectional dependence. The results show that there is now cross sectional dependence, Modified Wald test for group-wise heteroskedasticity and Wooldridge test for autocorrelation in panel data has been applied. Both of the tests have shown that model suffers from group-wise heteroskedasticity and autocorrelation, the problem of heteroskedasticity is removed by using robust standard errors and the problem of autocorrelation is tackled by applying GMM. We have found a strong positive effect of regulatory quality on the level of employment in selected economies. GDP has significant positive impact on employment generation as well. While terms of trade, trade openness and capital labor ratio are significantly reducing employment level in our sample. Developing countries of Asia like in our sample suffer from low quality of governance and weak institutions. This weak performance of institutions lower their efficiency of regulatory policies to enhance economic welfare and to generate employment. We suggest enhancing quality of regulatory institutions to tackle the issue of wide range unemployment in the developing economies like of Asia.

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