ABSTRACT

The hypothesis of Export-Led Growth (ELG) asserts exports as a development approach in order to enhance the productivity of an economy targeting big international markets. However, empirical evidences based on this postulate are mixed yet contradictory. The prime objective of this paper is to validate the customary ELG hypothesis specifically for selected South Asian economies incorporating the dynamics of the panel data. In this regard, four South Asian countries—Bangladesh, India, Pakistan, and Sri Lanka have been selected. The study employs panel unit root, panel ARDL and ECM for the time span of 1991-2017. The model includes annual GDP growth, exports, imports; and foreign direct investment for the econometric estimation. The findings prove significant and positive impact of exports and foreign direct investment whereas; negative but significant impact of imports on GDP growth of South Asian countries. Nevertheless, there exists some operational and institutional glitches that obstruct the ELG process in South Asia. These include geo-political ambiguities of the region, high price ratios, low investment rates, insufficient economic infrastructure, and unfavorable regulatory settings hampering the economic growth. It is thus suggested that South Asian countries can promote market diversification broadening the product range. Besides; policies based on export promotion should be considered to enhance capacity and quality of exports in order to stimulate growth.

Contribution/ Originality: This study contributes in existing literature while investigating ELG hypothesis making an allowance for a new panel for economies South Asian namely Bangladesh, India, Pakistan and Sri Lanka. Moreover, the study clusters around defining the dynamics of the ELG through applying panel Autoregressive Distributed Lag (ARDL) regression.

1. INTRODUCTION

The Export-Led Growth (ELG) strategy has been aimed to enhance the productive capacity of the home economy in international markets while achieving the objective of economic growth (Saglam and Egeli, 2017). In this regard, economists discuss number of international trade theories namely Hecksher-Ohlin theory of trade, theory of openness; and theory of openness for growth (Krueger, 1978; Salvatore, 1983; Bhagwati, 1988). The combined declaration of these perspectives considers trade as a source of technological diffusion and spillover to foster the overall productivity of the economy (Palley, 2011). Moreover, the insight of ELG hypothesis is the main part of this approach which had been instigated in 1970s in order to bear the fruit of border openness. During this
era, the most of the economies had switched from inward-looking policies of import substitution policies towards
out-ward looking policy of the ELG while targeting foreign demand for domestic products. For instance; the key of
success for Asian Tigers and Japan was that these economies has contributed a lot towards more economic
integration through trade as the strategy ELG had been widely acknowledged during 1970-1999.

Correspondingly, the ELG claims that development and extension of export activities not only generate
employing opportunities but also provide benefits to industrial sector which cater the growth of the economy.
There are many evidences from developing and emerging economies that were appeared to provide the empirical
supports for this hypothesis. In this regard, a significant segment of literature has been devoted to test the ELG
hypothesis using divergent data sets. The literature also revolves around determining the causality from growth to
exports; however, this is not the concern of this study.

Against the traditional background, over the last years, the literature on ELG has raised apprehensions on the
significance of ELG strategy as an appropriate tactic for the development (Ee, 2016). Even, impact of exports on
growth cannot relates with level of development of the country which is being under consideration such as
developed, emerging or developing because every economy have adopted the policies of export promotion as per
their contemporaneous condition (Palley, 2011). Furthermore; it was believed that ELG depended more on Foreign
Direct Investment (FDI) thus ELG must be replaced with Demand-Led Growth (DLG) hypothesis. In addition, it
was assumed that ELG is only applicable for industrialized and developed countries due to higher share in exports
and it was completely deployed by international organizations and the process of globalization (Palley, 2011).
However; it is argued by Blecker (2003) that the cause of failure of ELG in many developed economies could be
attributed to expansion effect on growth which was crowded-out. Furthermore, due to reduction in international
demands for exports from developed countries, ELG strategy became the reason of over-productivity and over-
investment in these countries.

Additionally, unpredictability, impulsiveness and instability of exchange rate in international markets also can
also be questioned for the dependence of less-developed economies on ELG policies (Singer, 1975). Thus, the ELG
hypothesis undergoes myth of Beggar-Thy Neighbor policy which harms trading partners in terms of devaluation
of currency to gain comparative advantage (Felipe, 2003). These arguments provides an insights views which
clears this misconstruction regarding ELG that there is no mutual consensus on the success or failure of ELG
policies as it may differs from one region or country to another region or country.

South Asia is one of the progressive continents as this region has gained its leads as fastest growing region in
the world that are experiencing sustained and robust growth patterns form the last few years (Munir and Javed,
2018). This could be attributed to the sturdy performance of the various Asian economies like India and Sri-Lanka
which has been driven by foreign investments, infrastructure progress, energy efficiencies and determination of
governments (Chow, 2010). However, this is always not the case for some countries of South Asia. Considering this
region of Asia, the Pakistan and Bangladesh are still striving hard to achieve the goals of sustainable development
and economic growth. Although, imports grew faster than exports in South Asia, however; growth relays on
exports in terms of job creation, foreign reserves, development of small industries etc. Therefore; it can be stated
that ELG stratagem in South Asian economies heavily depend on the access to international trade, market
diversification, and foreign demand. Meanwhile; due to limited production capacity and products diversification,
South Asian countries are not able to avail full benefits of export promotion polices that can stimulate their growth
(Din, 2004). As, it is already well defined that these economies are far behind in turning the benefits of exports in
favor of their growth (Rizavi et al., 2010). This is due to the fact that major exports of these countries profoundly
rely on primary goods and intermediated goods with less focus on manufactured goods that demand surges promptly
(Hausmann et al., 2007; Jarrau and Ponceet, 2012). These products are price inelastic therefore; exchange
rate depreciation is not supporting to enhance export demands in international markets. This insight accentuated
that high technology based exports will add up more benefits for the sluggish growth in South Asia.
Precisely, this could be the reason that not much devotion had been delivered previously to test the hypothesis of ELG due to its feeble implications. However, recently policy think tanks and researchers have started showing inclination to test and approve the hypothesis for South Asian economies due to the fact that there is still an incessant argument esteeming the probable dominance of South Asian economies in international markets. Therefore, this study endeavors to revisit the ELG hypothesis making an allowance for a new panel for economies South Asian namely Bangladesh, India, Pakistan and Sri Lanka. Moreover, the study clusters around defining the dynamics of the ELG through applying panel Autoregressive Distributed Lag (ARDL) regression. The technique allows generating aggregate results of the economies in the selected panel regressing separate models for both long-run and short-run.

The study has been organized in to five main divisions. The next part of the study discusses the divergences in the literature while the third segment presents methodology with variables descriptions and estimation procedure. The fourth fragment of the paper elucidates the estimation of results and discussion. The last part concludes the study with vital policy suggestions.

2. LITERATURE REVIEW

The ELG hypothesis had been explored by various scholars using divergent econometric applications and data sets. Additionally, there exists huge literature focusing developing nations using abundant pragmatic techniques and data sets (panel, cross-section, time series). The findings of these studies vary with econometric approach, data periods under consideration, variables (real or nominal), causality perspectives (uni or bi-directional); control variables of the models, interactive terms and so on. This is the reason that the export-growth association is yet a subject of extensive deliberation in the literature. In this regard, it is pertinent to mention here an extraordinary attempt by Giles and Williams (2000). The authors reviewed the work of more than hundred studies on ELG during 1963-1999 and concluded an undetermined consensus of ELG literature.

For that reason, we will ponder to a comprehensive perspective of the ELG literature and will consider the relevant and related studies throughout the section. Therefore, in Table 1 we have focused on specific studies related to South Asia in order to extract the gap in the extensive ELG literature.

The Table 1 explains that there exists an extensive literature exploring the ELG for South Asian economies focusing in both balanced and unbalanced studies. These studies differ in terms of data, estimations and country selection of Asia region. Moreover, most of the studies had relied on causality analyses ignoring the dynamic perspective of the ELG hypothesis and thus there is a limited literature directing the dynamics and forecasting of growth through exports and vice versa. Shafiullah et al. (2017) and Thornton (1996) ended up on long-term running from different exportable goods to growth of Australia and Mexico respectively. However, Dhawan and Biswal (1999) estimated Vector-Autoregressive (VAR) model and found causality in short term for Indian economy. Additionally, other set of panel exploration includes study by Ee (2016); Biyase and Zwane (2014); Alimi (2012); Tekin (2012); Razmi and Hernandez (2011); Mehrara and Firoujaee (2011); Pazim (2009); Kónya (2006); Parida and Sahoo (2007) and Reppas and Christopoulos (2005).

Considering the time series perspective of the ELG hypothesis, Aslan and Topcu (2018); Bosupeng (2015); Bilas et al. (2015); Bhatti and Bashir (2015); Shahbaz et al. (2011); Paul (2011) and Yew (2004) are a few distinguished studies. The other set of studies favoring the ELG includes the studies of Seabra and Galimberti (2012) and Foster (2006). It is worth mentioning here that these studies took into account various econometric models and explained results given the time span under consideration for ELG hypothesis.
### Table 1. Compilation of Asian studies.

| Author(s) | Year | Countries (Region) | Data | Methodology | Findings |
|-----------|------|---------------------|------|-------------|----------|
| Ekanayake (1999) | 1999 | 8 Developing Asian Economies | 1960-1997 Balanced Panel | Cointegration & Error Correction Model (ECM) | Validated ELG only for Malaysia |
| Kemal et al. (2002) | 2002 | 5 South Asian Economies | 1960-1998 Unbalanced Panel | Johansen Cointegration & VECM | ELG approved for all economies |
| Din (2004) | 2004 | 5 South Asian Economies | 2002 Unbalanced Panel | Johansen Cointegration & VECM | Bi-directional causality for Bangladesh, India, Sri Lanka while GLE approved for Nepal & no causality was found in case of Pakistan |
| Love and Chandra (2004) | 2004 | Pakistan, India, Sri Lanka | 1950-2000 Unbalanced Panel | Johansen Cointegration & VECM | ELG for Pakistan, Bi-directional causality for India and no causality for Sri Lanka |
| Shirazi and Manap (2005) | 2005 | 5 South Asian Economies | 20002-2005 Unbalanced Panel | Trivariate Model, Johansen Cointegration, Toda-Yamamoto Granger Causality | Bi-directional causality for Bangladesh & Nepal, ELG for Pakistan and no evidence for India & Sri Lanka |
| Easul and Ahmed (2007) | 2007 | South Asian Economies | 1965-2005 Unbalanced Panel | Bivariate Model, Engle Granger Method | ELG for Pakistan, Growth Led Exports (GLE) for Sri Lanka, Bhutan GLE-India, Nepal, Maldives & no causality for Bangladesh |
| Parida and Sahoo (2007) | 2007 | Four South Asian Economies | 1980-2002 Balanced Panel | Multivariate Analysis, Pedroni’s Panel Co-integration, Fully Modified Ordinary Least Square (FMOLS) | Endorsed ELG hypothesis for all economies |
| Safdari et al. (2011) | 2011 | 13 Developing Economies of Asia | 1988-2008 Balanced Panel | Bivariate Model, Panel Co-integration and FMOLS | The uni-directional hypothesis of GLE had been affirmed. |
| Nasreen (2011) | 2011 | 8 Developing Economies of Asia | 1975-2008 Balanced Panel | Bi-variate Model, Panel Cointegration, FMOLS | GLE for Pakistan, Sri Lanka, Indonesia, ELG for Malaysia & Thailand, Bi-directional causality for India & Philippines, no evidence of causality for Bangladesh |
| Hye et al. (2013) | 2013 | Six South Asian Economies | 2009 Unbalanced Panel | Trivariate Analysis, Bound Testing | ELG was significant for all Bangladesh, India, Nepal, Sri Lanka, Bhutan except Pakistan. Whereas; GLE was not effective for Bangladesh & Nepal. |
| Kumari and Malhotra (2015) | 2015 | 5 South Asian Economies | 1980-2012 Balanced Panel | Trivariate Analysis, Johansen Cointegration, VECM | Bi-directional causality for India while no causality for Pakistan, Bangladesh & Sri Lanka |
| Malhotra and Kumari (2016) | 2016 | 4 Largest South Asia Economies | 1980 to 2012 Balanced Panel | Johansen Cointegration, VECM, Impulse Response Function, Variance Decomposition | ELG only for the economy of India |

The literature review provides useful insights and revealed mixed results that specifically count on the either country or region given the objective under consideration. Summing the gist of the section, it is examined these studies have not integrated the acumen of exports-growth dynamics which plugs in the long term perspective in compliance with the short term convergence or divergence.
3. ANALYTICAL FRAMEWORK

Export-orientation policies have significant impact in the stimulation of economic growth directly and indirectly both. It has been found that increase in exports raise directly output growth as a main factor of GDP which is Keynesian perspective. While using advance technology, exports also stimulate economic growth indirectly this may lead to efficient allocation of economic resources, increase in productivity, full capacity utilization and economies of scale (Balassa, 1985; Grossman and Helpman, 1991). Furthermore, it increases economic competency of the country in order to compete with foreign competitors while exploring new markets for their products. Moreover; exports also generates foreign exchange which not only raise the level of imports but also support to imports capital and intermediate inputs for domestic production that further enhance growth through progression of industries (Balassa, 1985; Awokuse, 2003). This study follows new growth framework of Awokuse (2003) and Shan and Sun (1998) to examine the ELG hypothesis in growth model while including other relevant variables which have also significant contribution of GDP growth.

4. METHODOLOGY

4.1. Data Source

This study implies panel dataset exports for the period of 1981 to 2017 of four selected countries such as Pakistan, India, Sri Lanka, and Bangladesh that have significant share of exports in GDP. All dataset have been obtained from World Development Indicators (WDI) and International Financial Statistics (IFS). Description of variables and unit of measurement is presented in Table 2.

Table-2. Description of variables.

| Variables                | Abbreviation | Unit of Measurement | Reference Studies          |
|--------------------------|--------------|---------------------|----------------------------|
| Annual GDP growth        | Dependent    | Log(GDPG)           | Annual Percentage          | Paul (2011); Shahbaz et al. (2011) |
| Exports                  | Independent  | Log(EX)             | Percentage of GDP          | Ahmad et al. (2016); Ronit and Divya (2014) |
| Imports                  |              | Log(IMP)            | Percentage of GDP          | Malhotra and Kumari (2016); Shirazi and Manap (2005) |
| Foreign Direct Investment|              | FDI                 | Percentage of GDP          | Hakizimana (2015) |

4.2. Research Estimation Technique

While considering panel data framework, this research has been performed due to several advantages which improve efficiency of estimated outcomes. Using diverse knowledge and increase comprehensiveness of the analysis panel data incorporates effects of time series data along with cross section (Baltagi, 2013). Due to availability of data, panel data is estimated with large time period (T) and large cross section (N). However; the differences are applied with assumptions of with large or small time span with large number of cross section. Other panel different techniques are available through which panel data set can be estimated with certain restrictions and requirements. For instance; models of Fixed Effect (FE), Random Effect (RE); and Generalized Method of Moment (GMM) are appropriate for small time span. Moreover; the main outcomes have been drawn from large time span which divulges that homogenous slope coefficients (asymptotic) are often not suitable (Pesaran and Smith, 1995; Pesaran et al., 1999;1997). It should be notified that dynamic GMM estimator is applicable only in case of N>T. The FE model pools time series data for each cross section while allowing fluctuation in intercept across cross section. However; if estimated coefficients are not same then fixed effect model generate false and misleading outcomes. It is pertinent to mention here that as for our case, 4 economies are less than the 36 years (N<T). Hence, Dynamic
Mean Group (DMG) projected by Pesaran et al. (1999) is a suitable panel option as this considers a lower degree of heterogeneity (Fazli and Abbasi, 2018).

Equation 1 illustrates model with homogenous slope coefficient while Equation 2 presents panel model with heterogeneous slope coefficient.

\[ Y_{it} = \alpha_{10} + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it} \]  
(1)

\[ Y_{it} = \alpha_{20} + \beta_{1i} X_{1it} + \beta_{2i} X_{2it} + \beta_{3i} X_{3it} + \nu_{it} \]  
(2)

Where;

\( i = \text{cross section} \)

\( t = \text{time span} \)

\( Y = \text{dependent variable} \)

\( X = \text{independent variable} \)

If Equation 1 is accepted then panel model is estimated through conventional panel models (FE, RE, or GMM) whereas; if Equation 2 is accepted then panel model can be estimated through PMG or DMG. However; model estimation with heterogeneous slope coefficient are considered better in empirical research because it is more consistent authentic with economic realities (Coakley et al., 2006; Eberhardt and Teal, 2011; Fazli and Abbasi, 2018).

The mean group estimators follow two basic rules: first; to estimate a particular estimation model for every group which exists in the panel model. Second; to take average of coefficient of each group in order to obtain coefficients of the panel. In this respect; the group heterogeneity is deliberated in the model and coefficients would also be comparable to the original parameters of the economies.

Equation 3 present the DMG estimators with panel ARDL\((p, q_1, q_2, q_3, ..., q_n)\)

\[ y_{it} = \sum_{j=1}^{p} \lambda_{ij} y_{i,t-j} + \sum_{j=0}^{q} \delta_{ij} x_{i,t-j} + \mu_{i} + \epsilon_{it} \]  
(3)

Here;

\( y_{it} = \text{dependent variable for group } l \)

\( x_{ij} = \text{Vector of explanatory variables of group } l \)

\( \delta_{ij} = \text{Vector of coefficients} \)

\( i = 1, 2, 3, ..., N \ (Groups) \)

\( t = 1, 2, 3, ..., T \ (Time) \)

\( \mu_{i} = \text{Fixed effect} \)
\[ \varepsilon_{it} = \text{Vector of error terms} \]

It is more appropriate to estimate model with re-parameterization of Equation 3. It is structured co-integration DMG obtaining both long-run and short-run estimates. The choice between DMG models i.e Average Mean Group (AMG) or Pooled Mean Group (PMG) has been done by Hausman test.

The PMG estimation assumes that error terms are independent yet not serially correlated with explanatory variables (exogenous). The second imperative assumption of PGM is the presences of long-term association between variables (endogenous and exogenous). The third assumption of PGM is that parameters of long run are same across different cross section however it may not be same in short-run. Moreover; the PGM estimator is also flexible which permits homogeneity in long-run coefficient over each subgroup of countries or variables. Hence; through this producer of estimation, the conventional problems of estimation can be resolved.

\[
\Delta y_{it} = (\psi_{it} y_{it-1} \beta_{it} x_{it}) + \sum_{j=1}^{p-1} \lambda_{ij} \Delta y_{it-j} + \sum_{j=0}^{q-1} \delta_{ij} \Delta x_{it-j} + \mu_i + \varepsilon_{it} \tag{4}
\]

Where, \( \Delta y_{it} = y_{it} - y_{it-1} \), \( \beta_i = \sum_{j=0}^{q} \delta_{ij} \lambda_{ij}^* \) and \( \lambda_{im} = \sum_{m=j+1}^{p} \delta_{ij} \).

Equation 4 shows general model of ARDL-PMG where; is speed of adjustment parameters which is expected to be negative. As mentioned above that PGM estimator assumes homogeneity in the coefficient of long-run estimates which must be same across countries and group whereas; coefficients of short run estimates are allowed vary across group or countries.

The error correction from of PMG is estimated as follow:

\[
\Delta y_{it} = \phi_i (y_{it-1} - \delta_i X_{it}) + \sum_{j=1}^{p-1} \lambda_{ij} \Delta y_{it-1} + \sum_{j=0}^{q-1} \delta_{ij} \Delta x_{it-j} + \mu_i + \varepsilon_{it} \tag{5}
\]

Equation 5 shows error correction from of PMG where; parameter is the error term which shows speed of adjustment. If \( \phi_i = 0 \) no long run relationship would be proved. This error term should be negative and significant due to prior assumption which shows that variables will be converged towards equilibrium in long-run whereas; the vector \( \theta_i \) contain the long-run association among variables.

5. FINDINGS OF PANEL ESTIMATES

Table 3 presents summary statistics of the variables in the study. There is significant fluctuation in the maximum and minimum values of exports with the range of minimum value of 1.22 while maximum of 3.66.

Similarly; the range of variation for imports is minimum 1.943 and maximum 3.90. GDP growth rate and foreign direct investment have also recorded variations ranging from 0.014 to 2.26 for GDP growth whereas; from 0.000861 to 3.66 for FDI.
The above table shows various correlation matrixes that proves linear relationship and strength of among variables. We have found weak but positive linear association among variables with respect to GDPG. The results of panel unit root tests have been presented in Table 4. First, we have employed the panel unit root test of Im et al. (2003) which was hereafter termed as IPS test. This test has been widely used in empirical studies due to its simple technique and alternative hypothesis which claims heterogeneity. The IPS test basically assumes independence among cross sections of the panel data without considering time effects (common). Moreover, the test incorporates the heterogeneity through distinct deterministic properties (both constant and non-constant) with serial correlation (heterogeneous) arrangement of the error terms (Afonso and Rault, 2008). Additionally, we have also provided the results of three other panel unit root tests for expedite comparisons. These include Levin, Lin and Chu, Augmented Dickey Fuller and Peseran tests that are hereafter referred as LLC, ADF and PP test respectively.
Table 5 represents outcomes of various unit root tests. It can be verified that the variables of the panel dataset are integrated at level and first difference both. This allows to employ the panel ARDL methodology. The outcomes of panel unit roots also exclude the possibility of integration of variables at second difference and none of underlying variable is of order I(2). The long-term integration between underlying variables is inspected by the Kao (1999).

| H0: No Co-integration | t-Statistic | Prob. |
|-----------------------|------------|-------|
|                       | -2.848414  | 0.0022|

The Table 6 shows result of Kao test. It is clear from the estimates in the table that the null hypothesis is rejected at 1 percent which endorses long-term affiliation between variables. Thus, co-integration among variables is sufficient avoiding likelihood of false regression.

| Test Summary   | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob.  |
|----------------|-------------------|--------------|--------|
| Cross-section random | 17.700574         | 3            | 0.0005 |

The acceptance of alternative hypothesis in Table 7 also allows to employ the PMG-ARDL technique (Fazli and Abbasi, 2018). Thus, result of Hausman test allows to estimate the dynamics of the main model (Fazli and Abbasi, 2018). Figure 1 shows maximum selected lags of estimated model.

Akaike Information Criteria (top 20 models)

Figure 1 shows maximum selected lags of estimated model.

While selecting appropriate maximum lag lengths with automatic selection under Akaike Information Criteria (AIC), we have estimated ARDL Model for long and short run estimates.
Table 8. Long run estimates of panel model.

| Variable   | Coefficient | Std. Error | t-Statistic | Prob.  |
|------------|-------------|------------|-------------|--------|
| LnEX       | 0.629670    | 0.120532   | 5.224100    | 0.0000 |
| LnIMP      | -0.664687   | 0.332884   | -1.884094   | 0.0642 |
| FDI        | 0.371595    | 0.096173   | 3.863808    | 0.0003 |

The results of long run estimates have been presented in Table 8. The result confirms export-led growth hypothesis in case of SAARC countries. The result is in line with number of studies such as Balassa (1985); Parida and Sahoo (2007); Medina-Smith (2000); Seabra and Galimberti (2012) and Kumari and Malhotra (2015). A 1 percent increase in exports may leads to cause economic growth by 0.62 percent which also proves export potential for this region. Therefore; to ensure long-term growth; the region need to integrated with global world to sustain its upward growth, create more jobs and economic development for its people. Policymakers need to implement and ambiguous range of policy to implements an ambitious range of reforms that can turn the regions into the world next export power (World Bank, 2019). Moreover; foreign exchange from export earning can also be used to imports capital and intermediate goods to enhance growth.

Table 9. Short-run estimates of panel model.

| Countries   | Coefficient | Std. Error | t-Statistic | Prob.* |
|-------------|-------------|------------|-------------|--------|
| Bangladesh  | -0.342712   | 0.325736   | -7.192063   | 0.0055 |
| India       | -0.616500   | 0.239957   | -2.569223   | 0.0825 |
| Pakistan    | -2.539204   | 0.112492   | -22.57277   | 0.0002 |
| Sri-Lanka   | -0.226455   | 0.068264   | -3.317322   | 0.0451 |

Finally foreign competition brings economies of scale and accelerates technical progress in production resulting economic growth (Moosa, 1999). We have found significantly positive impact of FDI on economic growth of SAARC countries. The finding is similar with Lan (2006); Mottaleb (2007); Hansen and Rand (2006); Ahmad et
We can conclude that FDI positively enhances economic growth in South Asia, both directly and indirectly. The negative and significant association between import and GDP growth has been found in this study which is logically accepted that increasing imports worsen balance of trade. A 1 percent decrease in import may leads to increase economic growth by 0.66 percent. Increasing imports not only increase debt of region but also increase demand of foreign currency that negatively impacts economic growth. the finding is in line with the study of Mohsen (2015); Kholis (2012) and Kartikasari (2017). Moreover; deficit in trade reflects foreign borrowing which further increase problems in developing countries.

Table 9 elucidates the results of PGM short run estimates of both panel data. Considering the panel estimates of short run, the value of ECM is -1.43(0.0181) which is validating convergence of the model towards long run equilibrium after occurrence of any shocks in the short. Meanwhile, cross-section estimates of short run also indicate movement towards equilibrium as ECM term's signs are negative and statistically significant for Bangladesh, India, Pakistan and Sri Lanka with coefficients values of -2.34, -0.616, -2.53 and -0.22 respectively.

6. CONCLUSION AND RECOMMENDATIONS

This study has contributed in the recent literature incorporating the dynamics of ELG for selected economies of South Asia. We have investigated the traditional concept of ELG by making the panel for the time span of 1981-2017. The dynamic behavior of the variables in the model has been captured through the panel ARDL approach. The positive and significant coefficient between the core indicators of ELG has endorsed the postulate for the selected countries. This implies that expansion in exports would be significantly transmuted in the growth of the South Asian emerging economies.

Besides, the significant declaration of both long-run and short-run estimates affirmed the dynamics of the model under consideration in this study. This provides a plausible explanation of using appropriate variables in remodel. Moreover, the outcomes of the separate short run ECM has revealed no considerable variations implying the short run convergence in all four economies. On the whole, the ELG in the developing economies of South Asia has been declared effective in improving the growth.

In this regard, we have proposed a few doable policy measures in the lieu of two main insights, notably considering the long term perspective and to rectify the distortions in case of disequilibrium in the short run.

- This is high time for the South Asian economies to calibrate the initiative of export expansion which may tend to facilitate their exports and markets to international exposure. This will not only fabricate the capacity of exports in these economies but will also provide an accelerator effect to economic progress.
- Considering the geo-political patterns of the South Asia, it is well persuaded that economies in the region lag behind in terms of regional trend and integration. Therefore, it is essential for these economies to compose worthy regional trade policies and go beyond conflicts in order to converge in a more liberalized region.
- There is also a dire need for the region to develop the research and development (R&D) infrastructure in order to acquire knowledge and technological expertise.
- The harmony of the ELG in South Asia can be conveniently attained through enhancement in productive capacity to fulfill local demand, technological intensiveness, and competitive prices (home and foreign) and last but not the least product and market diversification.
- Turning to the demand of the importing countries, the exports of value added and manufactured products are highly inelastic and thus provide an intuition for the economies to deviate from their traditional exports of primary goods.
- Nevertheless, the economies must reduce their reliance on external sources (imports) and adopt the contemporary models of growth as these models emphasize on local components of aggregate demand.
The extraordinary propensity of imports must be eliminated and should be replaced with the initiatives of raising wages specifically in the services sector in compliance with more focus on financial derivatives alleviating savings of the economies.

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