



## **Economic Freedom Indicators and Higher Education Reforms: Evaluation and Planning Internationalization Process**

**Khalid Zaman<sup>1\*</sup>, Muhammad Qaiser Saleem<sup>2</sup>, Mehboob Ahmad<sup>3</sup>, Aamir Khan<sup>4</sup>**

<sup>1</sup>Department of Economics, University of Wah, Quaid Avenue, Wah Cantt, Pakistan, <sup>2</sup>College of Computer Science and Information Technology, Al Baha University, Al Baha, Saudi Arabia, <sup>3</sup>Department of Management Sciences, Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Islamabad Campus, Pakistan, <sup>4</sup>Department of Management Sciences, University of Wah, Quaid Avenue, Wah Cantt, Pakistan. \*Email: [khalid\\_zaman786@yahoo.com](mailto:khalid_zaman786@yahoo.com)

### **ABSTRACT**

This study contributes to the body of knowledge by measuring the effects of economic freedom indicators on higher education reforms in selected SAARC countries over a period of 1995-2012. The results show a strong linkage between economic freedom indicators and higher education, which support the internationalization policies of higher education institutions in the region. The results indicate that “freedom from corruption” increases higher education expenditures and literacy rate in Bangladesh, while trade freedom, financial development, property rights, and government spending have a positive impact on higher education expenditures and per capita gross domestic product in India, Nepal, Pakistan, and Sri Lanka. Property rights increases the higher education enrollment, higher education spending per student, and research and development (R and D) expenditures in Pakistan, while government spending in Sri Lanka has a positive relationship with the literacy rate and R and D expenditures. The results of panel fixed effect regression model confirm the importance of economic freedom indicators in higher education reforms in selected SAARC countries. The study concludes that economic freedom indicators enforce the need of higher education reforms, which is prerequisite for internationalization process across the globe.

**Keywords:** Higher Education, Economic Freedom Indicators, Internationalization of Universities, SAARC Countries, Panel Fixed Effect Regression

**JEL Classifications:** C23, I23

### **1. INTRODUCTION**

There is a strong relationship between globalization and internationalization of higher education, as Knight (2014) rightly mentioned that globalization promotes economic values, culture, knowledge transformation, and technological up gradation, while internationalization is the process to integrate the global dimension of educational learning, research culture, and service functions of higher education system. Globalization, however, has an impact on higher education through internationalization of education, which is the manifest to develop academic curriculum at international level (Stukalova et al., 2015). The most important part of the debate is related to student mobility which has somehow referred to internationalization process, while the other outer part of the discussion is linked to the transnational education, which is delivered through virtual campuses, far reaching campuses, etc.

Both the approaches linked with the global knowledge economy to diffuse knowledge with diversified educational infrastructure (OECD, 2014).

Economic freedom is given individual autonomy to pursue an economic livelihood and greater prosperity. The economic freedom discussion reflects heavily on the critical link between individuals and the government (Hayek, 1944). It is the fundamental right of every human to control his or her own labor and property. Societies with economic freedom extend liberty to individuals to work, produce, consume, and invest at their will. Such societies allow freedom of movement for labor, capital, and protect against coercion and illegal confinement (Miller and Kim, 2013). Heritage Foundation (2012) measures ten components of economic freedom on a scale of 0 to 100, where 100 representing maximum freedom. These freedoms are broadly grouped into four categories.

- Rule of law encompassing freedom from corruption and property rights
- Limited government including government spending and fiscal freedom
- Regulator efficiency enshrouding business, labor, and monetary freedoms
- Open markets covering financial, investment, and trade freedoms.

A country's over economic freedom score is the average of its scores on the 10 individual freedoms. Literature does not reflect on the implications of these indicators for academic freedom in teaching and research on the structure of internationalization of universities. Bartell (2004) concluded that universities across the globe are bound to adapt to the fast changing economic, political, technological, and social forces in the post-industrial scenario. The extraordinary development, the intricacy and aggressiveness of the worldwide economy with its orderly socio-political and innovative strengths have been making persevering and strong pressures on higher education to react to the changing environment needing extensive institutional adjustments including research training and administration in higher education. Ayoubi and Massoud (2007) used a content analysis technique on mission statements of 117 universities in the UK to find out whether international achievements match their strategic intent. The study revealed that international dimension was part of the mission statement in 74% universities and 48% of these universities are active on the international front. They formed four groups of matrixes including international actors' group, international losers group, international speakers group, and international winners' group. Dachs and Pyka (2009) studied the current internationalization of innovation activities for a period of 2000-2005 and identified the main drivers for the European Union. They found that primarily intense cooperation within the European Union and with USA caused internationalization of innovation and its equal distribution across the globe. Multivariate analysis showed that the absolute market size and stronger protection of intellectual property rights in the host country increases cross border patents between two countries, with the increased research and development (R and D) in the host and home countries. Compton et al. (2011) studied 50 US states for a period of 1981-2004 and found a significant positive link between economic freedom and economic growth.

Braga et al. (2013) while studying the role of educational reforms in explaining changes in educational attainment found that policy variable influence outcome where some policies that are labeled as "inclusive" and typically associated with left-wing governments and other policies that are labeled "selective" and typically associated with right-wing governments leading an increase in mean education and decrease in inequality, both, within and across cohorts. Pilkington and Nair (2013) found an unexpected convergence of academic, economic, and international factors indicating a possible Indo-French knowledge based triangle. Jalil and Idrees (2013) found positive effect of different levels of education on the economic growth of Pakistan from 1960 to 2010 indicating support for investment in education sector resulting in economic growth. Qureshi et al. (2014) identified the basic dimension including collaboration, global course, global

expansion, knowledge, MoUs, multiculturalism, strategic plan, and vision/mission in their framework for higher education in Pakistan. Yonezawa and Shimmi (2015) examine the interlinkages between the internationalization process and good governance in the Japan's top universities and concluded that financial investment required updating the internationalization of universities, while R and D maintained universities presence worldwide.

The literature based discussion supports strong correlation between economic freedom indicators and higher education. The objective of the study is to investigate the impact of economic freedom on higher education indicators in order to assess the internationalization process of universities across SAARC countries. The following research questions are designed to simplify the relationship between economic freedom indicators and higher education reforms in a region i.e.,

- Does greater economic freedom lead to an increase in higher education reforms?
- Does gross domestic product (GDP) per capita improve higher education?
- Does R and D expenditure expedite the process of internationalization of universities in a SAARC region?

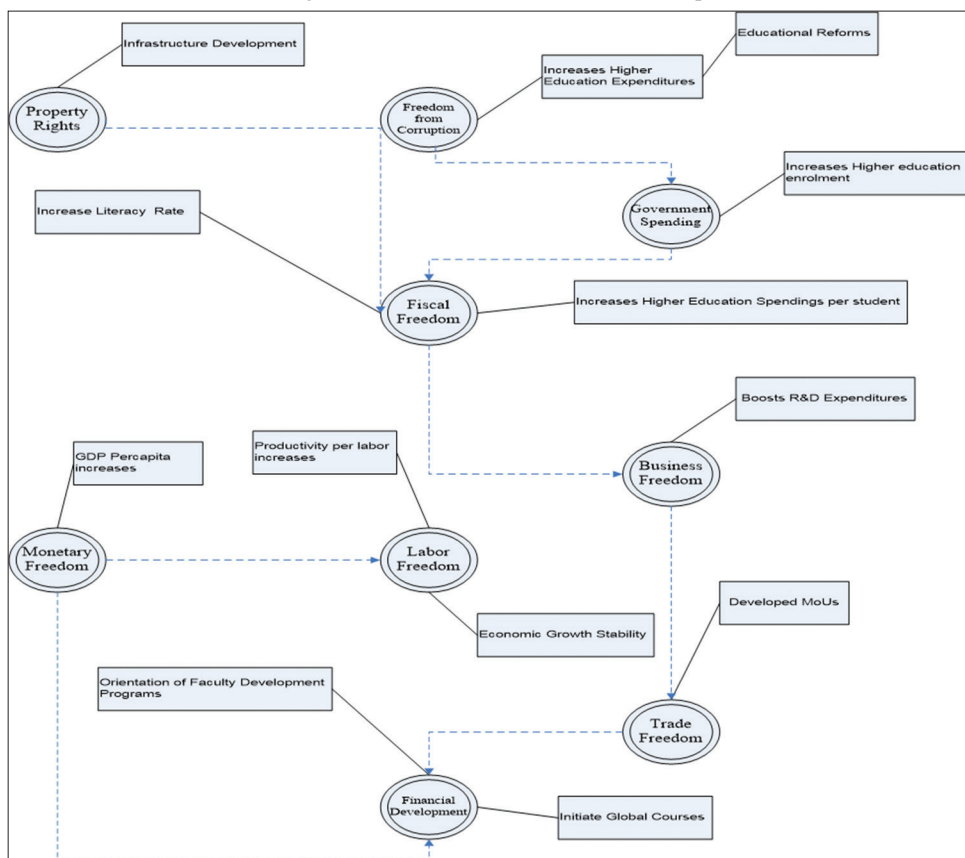
These research questions empirically tested for individual countries and for a panel of SAARC countries by using robust econometric techniques.

## 2. DATA SOURCE AND METHODOLOGICAL FRAMEWORK

The data set for economic freedom indicators taken from Heritage Foundation (2012) which comprises nine freedom indicators i.e., property rights, freedom from corruption, fiscal freedom, government spending, business freedom, labor freedom, monetary freedom, trade freedom and financial development. The data set for educational factors taken from World Development Indicators which is published by World Bank (2012) comprises four promising variables i.e., higher education expenditures as percentage of GDP, higher education enrolment in numbers, higher education spending per student as percentage of GDP, and literacy rate in percentage. Some other economic factors also explore the relationship in between freedom indicators and growth i.e., GDP per capita in current US \$ and R and D expenditures as percentage of GDP. These variables are selected due to the vital importance in the context of South Asia's internationalization process of universities, which need educational reforms via the collaboration of economic freedom indicators in this region. Figure 1 shows the research framework of the study, which depicts the strength of freedom indicators affect the internationalization practices of universities.

Figure 1 shows the transformation of economic freedom indicators in to educational outcomes that leads to the internationalization of universities. Freedom indicators acts as a promising relationship with the educational factors that facilitate towards infrastructure development, increases higher education expenditures, enhance labor productivity in terms of

**Figure 1:** Economic freedom indicators and higher education reforms contribute to the process of internationalization of universities



Source: Self extract

increasing literacy rate, boost R and D expenditures, orientation of faculty development programs, initiate global courses and developed MoUs. These educational outcomes may support the internationalization process of universities in the world. The most advance economic models reflect simply a straight mathematical relationship between inputs i.e., land, labor, and capital and economic output. Thus increased inputs help rapid growth of economies. Additionally, efficient economies produce more output from the same quantity of inputs. Economists take efficiency as agents of technological advances, whereas the developed economies depend on advance R and D to develop better technologies, the less developed countries can grow by simply adopting the technologies developed in other countries (Holcombe, 1998).

This study proposed the internationalization outlook for the universities by having a case study of selected South Asian countries namely, Bangladesh, India, Nepal, Pakistan and Sri Lanka over a period of 1995-2012. The endogenous variables are the educational indicators, which are separately regressed with each freedom indicators, by using ordinary least square (OLS) regression technique. As the data set is not adequate, therefore, this study uses OLS technique to justify the one-to-one relationship between the economic freedom indicators with higher education factors in selected SAARC countries. In addition, the study used panel fixed effects regression model that would absorb the country-specific-time invariant shocks from the given model. The panel fixed effects regression equation are as follows i.e.,

$$\ln(HEI)_{i,t} = \alpha_0 + \alpha_1 \ln(prgts)_{i,t} + \alpha_2 \ln(fecpt)_{i,t} + \alpha_3 \ln(ffdm)_{i,t} + \alpha_4 \ln(gspd)_{i,t} + \alpha_5 \ln(bfdm)_{i,t} + \alpha_6 \ln(lfdm)_{i,t} + \alpha_7 \ln(mfdm)_{i,t} + \alpha_8 \ln(tfdm)_{i,t} + \alpha_9 \ln(findev)_{i,t} + \gamma_{i,t} + \epsilon_{i,t} \quad (1)$$

Where, HEI represents higher education indicators, which includes higher education expenditures, higher education enrolment, higher education expenditures per student, literacy rate, R and D expenditures, and GDP per capita; while prgts indicates property rights, fecpt indicates freedom from corruption, ffdm indicates fiscal freedom, gspd indicates government spending, bfdm indicates business freedom, lfdm indicates labor freedom, mfdm indicates monetary freedom, tfdm indicates trade freedom, findev indicates financial development; ln represents natural logarithm, “i” indicates cross-section identifiers i.e., 5 countries, “t” indicates time period from 1995 to 2012,  $\gamma$  indicates fixed effect, and  $\epsilon$  is random errors.

### 3. RESULTS

Economic freedom creates wealth for an economy and circulates within it. Such growth helps least well off individuals see their income growth faster than other groups resulting in social mobility. Economic freedom also helps to mitigate inequalities through crony capitalism and rewarding hard work rather than the government favors (Knoepfle, 2010). Table 1 shows the linkage between freedom indicators and educational factors in the context of Bangladesh.

**Table 1: Linkages between economic freedom indicators and educational outcomes in Bangladesh**

Indicators of economic freedom	Standardized coefficient value of higher education expenditures (R <sup>2</sup> )	Standardized coefficient value of higher education enrolment (R <sup>2</sup> )	Standardized coefficient value of higher education expenditures per student (R <sup>2</sup> )	Standardized coefficient value of literacy rate (R <sup>2</sup> )	Standardized coefficient value of R and D expenditures (R <sup>2</sup> )	Standardized coefficient value of GDP per capita (R <sup>2</sup> )
Property rights	-0.035 (0.080)	0.121 (0.201)	0.415** (0.612)	0.052 (0.012)	0.712* (0.781)	0.525** (0.665)
Freedom from corruption	1.124* (0.912)	0.528** (0.698)	-0.042 (0.082)	1.158* (0.888)	0.055 (0.100)	1.285* (0.998)
Fiscal freedom	0.889* (0.899)	0.712* (0.818)	0.771* (0.518)	0.202*** (0.317)	0.552** (0.601)	0.740* (0.889)
Government spending	0.512** (0.799)	1.185* (0.889)	1.227** (0.899)	0.289*** (0.388)	1.010* (0.902)	0.666* (0.650)
Business freedom	0.484** (0.616)	0.085 (0.142)	0.042 (0.105)	-0.042 (0.102)	1.001* (0.788)	0.616** (0.598)
Labor freedom	0.885* (0.825)	0.088 (0.032)	-0.032 (0.028)	-0.045 (0.019)	0.101 (0.300)	0.334*** (0.388)
Monetary freedom	-0.052 (0.102)	0.111 (0.085)	-0.108 (0.133)	0.032 (0.052)	0.666* (0.852)	-0.014 (0.201)
Trade freedom	1.412* (0.985)	0.625* (0.559)	0.401** (0.499)	0.144 (0.224)	0.184*** (0.208)	0.443** (0.589)
Financial development	0.616* (0.883)	1.174* (0.998)	0.201*** (0.301)	0.501** (0.601)	1.140* (0.928)	0.558** (0.689)

Source: Authors' estimation. \*\*\* and \*\* shows 1%, 5%, and 10% level of significance. Small bracket shows R<sup>2</sup> value. R and D: Research and development, GDP: Gross domestic product

The results reveal that freedom from corruption indicator has a significant and positive contribution to increase higher education expenditures, literacy rate and GDP per capita, as coefficient value indicates that there has been more elastic (i.e., >1) relationship with the corruption indicator in Bangladesh. In addition, business freedom indicator increases higher education expenditures, R and D expenditures and GDP per capita; while R and D expenditures have a one-to-one corresponding relationship with the business freedom indicator in a country. The study shows the influence of business education on economic development for a prosperous and stable society. A skilled labor force is instrumental in creativity, innovation, and increasing business opportunities resulting in prosperous environment providing jobs enhanced quality of life among citizens (Bahhouth et al., 2012). Trade liberalization policies and financial development act as a strong contributor to increase higher education reforms in Bangladesh, however, the magnitude of increasing higher education varies with the economic freedom indicators in the respective countries. Table 2 shows the economic freedom indicators and higher education nexus in the context of India.

The results indicate that economic freedom indicators advance the higher education system, as property rights contribute to increase by 0.556% of higher education expenditures, by 0.787% to enrolment in higher education, and by 0.989% of India's GDP. Similarly, if there is one percent increase in freedom from corruption indicator, it increases higher education expenditures by 1.102%, spending per spending higher education by 0.558%; one-to-one relationship with literacy rate and increases GDP per capita by 0.885% points. Monetary indicator acts as a strong contributor to increase GDP per capita relative with the fiscal policy. In addition, there is one-to-one corresponding relationship

between monetary freedom and R and D expenditures in the country. Trade liberalization policies in India have more prone towards higher education expenditures i.e., 1.158%, and GDP per capita by 1.032% points. Financial development indicator has a one-to-one corresponding relationship with the literacy rate in the country. The study concludes that increased centralization of educational agencies, bureaucratization, and unionization find support in education policies resulting in drastically increased government spending on education with very little progress to show. These policies correlate with stagnant scores on standardized tests and other failures, whereas conventional thoughts oppose economic freedom policies of decentralization, competition, and educational choice, progressive mind sets on the other criticize parental freedom to determine schooling for their children (Roberts and Olson, 2013). Table 3 shows the corresponding relationship between freedom indicators and educational outcomes in Nepal.

The results show that there has a more elastic relationship between, (i) Freedom from corruption and higher education expenditures (i.e., 1.102%); (ii) between corruption indicator and literacy rate (i.e., 1.108%), (iii) between trade freedom and higher education expenditures (i.e., 1.102%); (iv) between trade freedom and R and D expenditures (i.e., 1.104%); (v) between trade freedom and GDP per capita (i.e. 1.102%); (vi) one-to-one corresponding relationship between financial development and higher education expenditures, and (vii) between trade freedom and higher education enrolment in Nepal. Monetary freedom is more prone to the fiscal freedom in the country. The study concludes that though higher education in Nepal has great importance for its developments but not yet full materialized. Nepal has been endeavoring for the last two decades to uplift educational standard through quality higher education,



**Table 2: Linkages between economic freedom indicators and educational outcomes in India**

Indicators of economic freedom	Standardized coefficient value of higher education expenditures (R <sup>2</sup> )	Standardized coefficient value of higher education enrolment (R <sup>2</sup> )	Standardized coefficient value of higher education expenditures per student (R <sup>2</sup> )	Standardized coefficient value of literacy rate (R <sup>2</sup> )	Standardized coefficient value of R and D expenditures (R <sup>2</sup> )	Standardized coefficient value of GDP per capita (R <sup>2</sup> )
Property rights	0.556** (0.725)	0.787* (0.912)	-0.181*** (0.412)	-0.058 (0.102)	0.301** (0.501)	0.989* (0.981)
Freedom from corruption	1.102* (0.989)	-0.068 (0.100)	0.558** (0.612)	1.010* (0.889)	0.071 (0.205)	0.885* (0.912)
Fiscal freedom	0.445** (0.668)	0.558** (0.665)	0.555** (0.669)	0.998* (0.989)	0.025 (0.120)	0.665* (0.725)
Government spending	0.557** (0.778)	1.158* (0.935)	1.101* (0.989)	1.100* (0.986)	0.998* (0.986)	0.425** (0.558)
Business freedom	0.696* (0.855)	-0.058 (0.105)	-0.005 (0.068)	0.045 (0.024)	0.201*** (0.402)	0.235*** (0.399)
Labor freedom	0.010 (0.201)	0.099 (0.221)	0.085 (0.198)	-0.045 (0.030)	0.036 (0.112)	0.299*** (0.386)
Monetary freedom	0.338*** (0.585)	-0.058 (0.226)	0.022 (0.109)	0.625* (0.858)	1.001* (0.998)	0.787* (0.869)
Trade freedom	1.158* (0.912)	0.669* (0.812)	0.201*** (0.401)	0.585** (0.828)	0.885* (0.968)	1.032* (0.928)
Financial development	0.004 (0.101)	0.444** (0.728)	0.085 (0.121)	1.010* (0.987)	0.301*** (0.425)	0.335*** (0.401)

Source: Authors' estimation. \*\*\* and \*\* shows 1%, 5%, and 10% level of significance. Small bracket shows R<sup>2</sup> value. R and D: Research and development, GDP: Gross domestic product

**Table 3: Linkages between economic freedom indicators and educational outcomes in Nepal**

Indicators of economic freedom	Standardized coefficient value of higher education expenditures (R <sup>2</sup> )	Standardized coefficient value of higher education enrolment (R <sup>2</sup> )	Standardized coefficient value of higher education expenditures per student (R <sup>2</sup> )	Standardized coefficient value of literacy rate (R <sup>2</sup> )	Standardized coefficient value of R and D expenditures (R <sup>2</sup> )	Standardized coefficient value of GDP per capita (R <sup>2</sup> )
Property rights	-0.035 (0.080)	0.201*** (0.302)	0.696* (0.812)	0.299*** (0.389)	0.445** (0.516)	0.625* (0.825)
Freedom from corruption	1.102* (0.986)	-0.625* (0.825)	0.258*** (0.301)	1.108* (0.988)	0.666* (0.858)	0.558** (0.775)
Fiscal freedom	0.668* (0.812)	0.524** (0.685)	-0.054 (0.014)	0.035 (0.201)	0.555** (0.812)	0.454* (0.585)
Government spending	0.558** (0.698)	-0.015 (0.301)	0.285** (0.402)	0.998* (0.963)	0.565** (0.857)	0.665* (0.798)
Business freedom	-0.212*** (0.402)	0.025 (0.328)	-0.035 (0.025)	0.885* (0.958)	0.025 (0.201)	-0.525** (0.742)
Labor freedom	-0.025 (0.201)	-0.291*** (0.501)	0.665* (0.847)	-0.525** (0.828)	-0.525** (0.599)	-0.656* (0.898)
Monetary freedom	0.212*** (0.301)	0.625* (0.725)	0.033 (0.121)	0.778* (0.958)	0.747* (0.888)	0.696* (0.898)
Trade freedom	1.102* (0.989)	1.010* (0.987)	0.055 (0.201)	0.665* (0.812)	1.104* (0.989)	1.102* (0.999)
Financial development	1.001* (0.998)	0.444** (0.562)	-0.024 (0.044)	-0.021 (0.201)	0.332** (0.656)	1.214* (0.996)

Source: Authors' estimation. \*\*\* and \*\* shows 1%, 5%, and 10% level of significance. Small bracket shows R<sup>2</sup> value. R and D: Research and development, GDP: Gross domestic product

however, it still has to overcome many obstacles. Nepal needs robust procedures to overcome obstacles of quantity, equity, and quality in future (Dahal, 2010). Table 4 shows the nexus between economic freedom indicators and educational outcomes in Pakistan.

The results reveal that economic freedom indicators act as a strong contributor to increase higher education in Pakistan, however, the magnitude of influencing the variables varying according to the nature of the economic freedom indicators in the context of the particular country. The results are in the form of elasticity,

**Table 4: Linkages between economic freedom indicators and educational outcomes in Pakistan**

Indicators of economic freedom	Standardized coefficient value of higher education expenditures (and R <sup>2</sup> )	Standardized coefficient value of higher education enrolment (and R <sup>2</sup> )	Standardized coefficient value of higher education expenditures per student (and R <sup>2</sup> )	Standardized coefficient value of literacy rate (and R <sup>2</sup> )	Standardized coefficient value of R and D expenditures (and R <sup>2</sup> )	Standardized coefficient value of GDP per capita (and R <sup>2</sup> )
Property rights	1.012* (0.998)	0.665* (0.858)	0.222*** (0.302)	-0.055 (0.201)	0.558** (0.625)	1.102* (0.989)
Freedom from corruption	0.665* (0.878)	0.696* (0.858)	0.025 (0.025)	1.025* (0.989)	0.445** (0.658)	0.556** (0.625)
Fiscal freedom	0.201*** (0.399)	1.108* (0.969)	0.088 (0.201)	0.668* (0.585)	0.659* (0.858)	0.757* (0.989)
Government spending	0.454** (0.656)	0.885* (0.939)	1.102* (0.998)	0.445** (0.528)	1.252* (0.998)	0.596** (0.669)
Business freedom	1.102* (0.925)	-0.025 (0.058)	0.565** (0.669)	0.025 (0.320)	0.669* (0.858)	-0.258*** (0.425)
Labor freedom	-0.552** (0.698)	-0.565** (0.696)	0.858* (0.958)	0.717 (0.665)	-0.252*** (0.302)	-0.235*** (0.399)
Monetary freedom	0.335*** (0.401)	0.336*** (0.425)	0.045 (0.058)	0.258*** (0.269)	0.625* (0.698)	0.525** (0.668)
Trade freedom	1.102* (0.989)	1.111* (0.989)	0.228*** (0.236)	1.253* (0.998)	1.205* (0.869)	0.585** (0.858)
Financial development	0.025 (0.200)	0.220*** (0.348)	1.021* (0.999)	0.363*** (0.452)	0.998* (0.969)	1.121* (0.998)

Source: Authors' estimation. \*\*\* and \*\* shows 1%, 5%, and 10% level of significance. Small bracket shows R<sup>2</sup> value. R and D: Research and development, GDP: Gross domestic product

which clearly reflects the extent of increasing and decreasing the variables i.e., in this study, there are few variables which shows elastic relationship (i.e., >1); less elastic (i.e., <1) and unitary elastic (i.e., =1) relationship with the depended variable. There is one-to-one corresponding relationship between, (i) property rights and higher education expenditures; (ii) freedom from corruption and literacy rate; and (iii) financial development and higher education expenditures per student in Pakistan. There are more elastic (i.e., >1) relationship, (i) between property rights and GDP per capita; (ii) between fiscal freedom and higher education enrolment; (iii) between government spending and R and D expenditures; (iv) between business freedom and higher education expenditures; (v) between trade and multiple education indicators (i.e., higher education expenditures, higher education enrolment, literacy rate, and R and D expenditures); and (vi) between financial development and GDP per capita in Pakistan. The rest of the variables possess either less elastic relationship or no relationship (i.e., insignificant) with the higher education indicators in a country. The study concludes that there is relatively larger proportion (32%) of uneducated youth primarily with no vocational and life skill resultantly they end up either being unemployed or inactive, or at best being in elementary occupations. There is a need to accommodate their wellbeing, education, and work, and captivate them in exercises which change over their dormant vitality into positive results for family, group, state and the globe. This may require provision of quality education, skill development, introduction of policy reforms in National Youth Service, redesigning and regrouping cities to afford opportunities to youth, promising youth entrepreneurship programs in major cities, encouraging civic engagement, giving priority to youth

sports, and activities supporting development of youth (PC, 2011). Table 5 shows the statistics of freedom indicators and higher education in the context of Sri Lanka.

The results confirm the strong connection between economic freedom indicators and higher education output in Sri Lanka, as property rights increases literacy rate, R and D expenditures and GDP per capita of the country, whereas, freedom from corruption indicator significantly increases GDP per capita. Government spending contributes to the higher education expenditures in a country. Monetary freedom increases higher education expenditures, higher education spending per students, and GDP per capita of the country. Financial development played a vital role to increase higher education enrolment, higher education expenditures per student, and literacy rate. The study concludes that the relationship between business environment stakeholders and the firm plays pivotal role in corporate success. There are many other factors that may play even a greater role in many Asian businesses. The businesses face a key challenge to avoid power abusive by authorities. Sri Lanka is also prone to wide spread corruption in South Asian economies. Enabling supportive community for the effective application of policy and regulation requires a robust mechanism of information dissemination and feedback about such polices with special focus to small and medium enterprises (Abayasekara, 2011). Table 6 shows the panel fixed effect regression model that addresses the country-specific-time-invariant shocks on the prescribed data sets.

The results show that property right has a significant and positive relationship with the higher education expenditures per student

**Table 5: Linkages between economic freedom indicators and educational outcomes in Sri Lanka**

Indicators of economic freedom	Standardized coefficient value of higher education expenditures (and R <sup>2</sup> )	Standardized coefficient value of higher education enrolment (and R <sup>2</sup> )	Standardized coefficient value of higher education expenditures per student (and R <sup>2</sup> )	Standardized coefficient value of literacy rate (and R <sup>2</sup> )	Standardized coefficient value of R and D expenditure (and R <sup>2</sup> )	Standardized coefficient value of GDP per capita (and R <sup>2</sup> )
Property rights	0.525** (0.625)	0.665* (0.858)	0.025 (0.201)	1.253* (0.957)	1.252* (0.902)	0.552** (0.685)
Freedom from corruption	0.332*** (0.424)	0.454** (0.585)	0.656* (0.858)	0.656* (0.858)	0.659* (0.890)	1.258* (0.999)
Fiscal freedom	0.757* (0.858)	0.025 (0.032)	0.023 (0.201)	-0.565** (0.832)	0.585** (0.758)	0.528** (0.669)
Government spending	1.252* (0.989)	-0.125 (0.214)	-0.0125 (0.320)	0.369*** (0.425)	0.858* (0.946)	0.775* (0.858)
Business freedom	-0.235*** (0.625)	0.565** (0.686)	0.556** (0.625)	1.689* (0.859)	1.256* (0.923)	1.233* (0.975)
Labor freedom	0.225*** (0.425)	0.775* (0.989)	-0.252*** (0.352)	-0.524*** (0.354)	0.669* (0.832)	-0.525** (0.656)
Monetary freedom	1.105* (0.898)	0.458** (0.686)	1.252* (0.968)	0.035 (0.124)	1.258* (0.967)	0.299*** (0.389)
Trade freedom	0.035 (0.212)	1.102* (0.989)	0.556** (0.625)	0.621* (0.808)	-0.254*** (0.524)	1.525* (0.943)
Financial development	0.225*** (0.324)	1.258* (0.999)	1.256* (0.919)	1.529* (0.990)	0.025 (0.321)	0.858* (0.938)

Source: Authors' estimation. \*\*\* and \*\* shows 1%, 5%, and 10% level of significance. Small bracket shows R<sup>2</sup> value. R and D: Research and development, GDP: Gross domestic product

**Table 6: Linkages between economic freedom indicators and educational outcomes in a panel of Asian countries**

Indicators of economic freedom	Higher education expenditures	Higher education enrolment	Higher education expenditures per student	Literacy rate	R and D expenditure	GDP per capita
Constant	-0.097	-0.270	4.070*	-1.054	6.953*	3.522
Property rights	0.106	0.080	0.038*	0.297	0.100*	0.943*
Freedom from corruption	0.804***	-0.051	-0.002	0.370*	-0.017	0.430*
Fiscal freedom	0.164**	0.147*	0.004	-0.085	0.022	0.418*
Government spending	-0.236	-0.114	0.385*	0.346	0.007	-0.084***
Business freedom	-0.042	0.110*	-0.003	0.251*	0.028*	0.238*
Labor freedom	0.088**	0.064*	0.003	-0.094***	0.011	0.487
Monetary freedom	-0.151*	0.049*	0.005	1.007	1.400*	0.505
Trade freedom	0.184*	-0.052**	0.004	0.877*	0.020**	0.030
Financial development	0.187**	0.060**	0.010***	0.368*	-0.011	0.190**
Cross-section fixed (dummy variables)						
R <sup>2</sup>	0.878	0.916	0.972	0.951	0.972	0.912
Adjusted R <sup>2</sup>	0.870	0.911	0.970	0.948	0.971	0.906
F-statistics	56.786*	74.009*	112.190*	98.879*	135.876*	88.675*

Source: Authors' estimation. \*\*\* and \*\* shows 1%, 5%, and 10% level of significance. Small bracket shows R<sup>2</sup> value. R and D: Research and development, GDP: Gross domestic product

(i.e., 0.030,  $P < 0.000$ ), R and D expenditures (i.e., 0.100,  $P < 0.000$ ), and GDP per capita (i.e., 0.943,  $P < 0.000$ ), while freedom from corruption extended the higher education expenditures by 0.804%, literacy rate by 0.370%, and GDP per capita by 0.430% respectively. Fiscal freedom has a positive and significant relationship with the higher education expenditures, higher education enrolment, and per capita GDP, however, share to increase fiscal freedom is far greater than in the per capita GDP as compared to other two factors. Government spending increases the higher education expenditures per student, while its significantly

decreases the per capita income. Business freedom increases higher education enrollments, literacy rate, R and D expenditures, and per capita income, while labor freedom enhances the base of higher education expenditures, higher education enrolment, and literacy rate respectively. There is an indirect relationship between monetary freedom and higher education expenditures, while it exerts the direct relationship with the higher education enrolment and R and D expenditures. Trade freedom, on one hand, increases the higher education expenditures, literacy rate, and R and D expenditures, while on the other hand, it decreases

the higher education enrolment. Finally, financial development acts as a catalyst to increase the higher education expenditures, higher education enrolment, higher education expenditures per student, literacy rate and per capita income. These results indicate the importance of economic freedom indicators in a panel of SAARC countries.

#### 4. CONCLUSIONS

Crises enable retrospective preparation for the future (Katsomitros, 2012). SAARC countries bear witness to it by debating economic freedom model and reforms in higher education since last decade. Though “investment in knowledge” has become a buzz word in political communities, it requires long-awaited but painstaking reforms. The study explored the relationship between economic freedom indicators and higher education in five SAARC countries for a period of 1995-2012 to realize the fruits of internationalization of universities. The results indicate that economic freedom indicators increases the higher education reforms in a region. In Bangladesh, (i) freedom from corruption increases higher education expenditures, literacy rate, and GDP per capita; (ii) trade freedom and financial development improves higher education in India; (iii) monetary freedom adds higher education in Nepal; (iv) property rights increases higher education in Pakistan; and (v) government spending increases per capita income, and R and D expenditures in Sri Lanka.

The following concluding points emerged in this exercise, which are supported with the previous studies i.e.,

- Globalization and the emergence of knowledge based economy are instrumental in bringing about drastic changes in higher education across the globe. Asian universities are following Anglo-Saxon paradigm in the pursuit of being globally more competitive (Mok, 2007).
- Education encourages people to put greater efforts to succeed in drawing themselves out of poverty through hard work and entrepreneurship. Against the popular perception, free-market principles of economic freedom empirically indicate more effective means of achieving these desirable educational outcomes for most people (Roberts and Olson, 2013).
- With the advent of globalization, intangible assets have become increasingly important in supporting the sustainable social and economic development of nations. Contextually, universities being the main tool for disseminating knowledge through formal learning institutions that have become more important for societies (Horta, 2010).
- Decisive action by leaders to boost their countries’ competitiveness and future outlook is primarily important to encourage, sustain, and enhance growth. Higher education reforms and sensible investment to enhance competitiveness will be critical for any economic transformation leading to sustained long-term higher growth. This makes it necessary to give competitiveness priority on economic reform agenda of advanced, emerging, and developing economies (World Economic Forum, 2013).
- Countries with limited political freedom can also witness economic growth by encouraging economic freedom. However, political freedom alone without economic freedom

may not bring the desired results. This scenario highlights that new democracies should attempt to free markets, property rights adherence, stabilizing currency, and mitigating government’s role in the economy. Evidence also advocates that richer nations are more democratic and protective of civil liberties and political freedoms. Thus, economic freedom also benefits political freedom indirectly (Holcombe, 1998).

- Some actions by the government are of national importance for their defense and promotion of peaceful evolution of civil society, and to enjoy the fruits of their labor (Miller and Kim, 2013).

There is a subsequent need to adopt the economic freedom policies in higher education reforms in order to device a long-term sustained policy for internationalization of universities across the globe.

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