Impact of Soft Power on Current Account Balance in South Asia

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Abstract

This study empirically investigates the impact of soft power on current account balance in a panel of seven South Asian countries over the period from 2000 to 2018. The study incorporated population growth, dependency ratio, government effectiveness index, political stability index, net foreign assets, domestic credit, trade openness and real GDP growth as soft power measures in single penal model. The study used Least Square Dummy Variable (LSDV) fixed effect model, random effect model and pooled OLS with standard model specification tests of Hausman and Breusch & Pagan Lagrangian Multiplier. The results of the study addressed that soft power measures are significantly affecting current account balance in South Asia. The results of the study are consistent with existing evidence on the subject the signs of the parameters are according to expectations. The study holds significant contribution in the literature as it fulfills the gap in existing literature by first time identifying soft power determinants of current account balance in South Asia. The study with reference to previous evidence suggested that there is need of considering soft power factors such as population growth, dependency ratio, government effectiveness, domestic credit to private sector and net reign assets in targeted policy reforms to control imbalance in current account of South Asian countries.

Key words: Soft Power, CAB, LSDV, South Asia

1. Introduction

The term "soft power" refers to the effectiveness of the country's governance, demography, political situation, financial base, economic development and social sector development which are sometimes called structural measures of the economic and social land scape of the economy (Nye, 1990). The importance of soft power is taking vital place in macroeconomic implications particularly on current account balance. Recent studies have explored the theoretical linkages between soft power and current account balance. Recent literature confirmed that with other traditional determinants of current account balance structural measures are also very significant drivers for current account balance in emerging economies (Cheung et al., 2010).

Current account balance is considered an important determinant of any economies health and indicates the external sector balance of the country. It is defined as the balance between the country's export of goods and services and import of goods and services within a specified period. The surplus in the balance indicates the positive stronger position of the nation and shows that country is net lender to others and a deficit in the current account leads to worsen the overall economy of the country and shows that nation has net borrowing from other countries. Globally the imbalance in the current account has emerged during the recent years, many developing and some developed countries also facing deficit in the current account, however growing and emerging economies have witnessed surplus in their current account balances. Current account balance is one main component of balance of payments along with capital account.

Globally imbalances in the external sector has been consistently observed in recent years and literature has given much importance to the ongoing trends and literature has linked these imbalance with different macrocosmic events like global financial crises is one of the main

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important factor and some studies have linked this with the changes in the global political system and the situations of the domestic governance of the nations. These imbalances have indicated a sound impact on the future global economic situation (Cheung et al., 2010).

Literature has given a considerable attention to the ongoing Global pattern in CAB through theoretical and empirical research and it is concluded that imbalance in current account is now inconsistent with traditional view point that industrial economies will have high surplus in the current account and importing countries face deficit in their current account. Present evidence lead to new discussion that along with traditional view point some other factors are also very important in determining external balances these factors are called structural basis of the countries. The factors effecting current account balance leads from macrocosmic to demographic, institutional, financial situation and level of development. Literature argued that countries facing different stages of development may have different external balances. The internal capacity of any economy is considered very important factor for determining external balance (Gruber & Kamin, 2006).

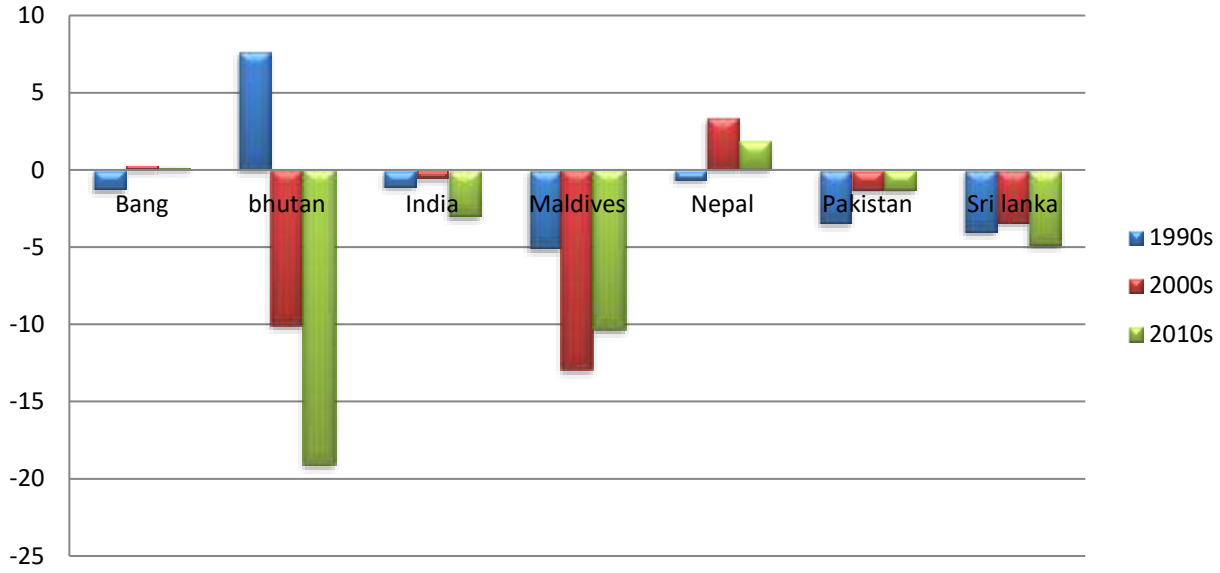
Recent developments in the global economy provides a reasonable discussion on the present position of external imbalances which is now not a traditional phenomenon. With emergence of more power pillars in the world economy the structure of the world is changing which has significant implications on the global external balance. This fundamental is explained in literature on three main basic factors and features of the global land scape (Bracke et al., 2008). Fist and most important the dependence of trade and financial flows, previously the global economy was dependent only three main areas of the world, USA, Europe and Japan. But now it is more diversified and wide ranging in almost all parts of the world.

Second is the shift in global finical flow system, previously the world was mainly based on trade flows, but with emergence of new area of globalization the capital flows are increased and the trade alone is not considered having long lasting implications on external balances. In recent decades a strong rise in the international portfolios is observed and a considerable decline is seen in domestic investors within the country they prefer to invest abroad. This gave rise to the great financial flows and innovation in the global economy.

The third emerging factor is the improvements and developments in the macroeconomic and domestic financial institutions condition of the economy. The countries experiencing high economic growth are tending to face high financial market volatility. Decade ago there was high instability and uncertainty in the global financial situation and the global economy was divided into big pockets and those pockets were the major drivers of the global economy and the unrest in the financial system were creating high risks to the international flows of capital and there was slow down in the growth rates.

Current account in south Asian countries is remained in deficit. Accept Nepal and Bangladesh all other countries are facing current account deficit in 2000s and 2010s. Highest deficit in current account is observed in Bhutan at -19.13% of GDP and highest surplus average is observed in Nepal in 2000s with value of 2.293% of GDP. Overall the situation in Nepal is better than other south Asian countries. The highest average surplus in current account is observed in Bhutan in the 1990s**.** Figure 1 indicates that accept Bhutan and Sri Lanka all other countries are facing some betterment in their current account balance. According to World Economic Outlook (2015) the South Asian region has made tremendous achievement in trade with other part of the world. From 1990s to 2000s the export growth of South Asian countries is increased at rapid values which bring their current account deficit down to lower values.

Figure 1 Curent account balance in South Asia 1996 to 2018



Source: World Economic Outlook

The main objective of this study is to empirically investigate the soft power factors behind the current account balance in South Asia. Using a balanced panel comprising 7 south Asian countries Pakistan, India, Bhutan, Bangladesh, Sri Lanka, Maldives and Nepal from 1996 to 2018, we will investigate the importance of "soft power" variables that encapsulate a country's demographic, institutional, political and social underpinnings that are generally ignored in the literature.[3] In addition, the study includes control variables, drawn from the literature on Current Account Balance, and which are expected to capture the conventional macro-financial drivers of Current Account Balance. With regards to the "soft power" characteristics of individual countries, rather than relying on an arbitrary choice of a small set of variables, the study takes an 'agnostic' view of demographic, institutional, political and social indicators.

The Significance of this study is therefore to investigate the nature and scale of relationship between Current Account Balance and Institutional infrastructure and social features across South Asian countries. This will be the significant study of the dynamic nature in case of South Asia in which Soft power will be addressed as the determinant of current account balance. We expect to see "soft power" factors to have a prominent role in determining current account balance directly and indirectly by fostering better policy choices and shaping the pattern and evolution of macroeconomic fundamentals and risk premia. Significance basically lead to the literature point of view, there are many recent studies conducted on the view of different macroeconomic determinants of current account balance (Menzie et al., 2008 and Chinn & Prasad, 2000) and some studies have elaborated the implications of current account balance on macro economy (Mozy, 2009 and Obstfeld & Rogoff, 1995). Recently some studies have determined that soft power measures are also important determinants for current account balance in developed and in emerging economics (Cheung et al., 2010) however, in case of South Asian economies there it is hard to find and previously conducted empirical study on the subject thus the contribution of the current study magnifies the significance in the literature.

[3] The concept of soft power popularized by Nye (1990) in studying international relations captures intangible resources beyond material considerations.

2: Materials and Methods

Theoretical relationship between Current Account Balance (CAB) and soft is however ambiguous. But there are some studies which have incorporated the soft power measures to determinate the Current Account Balance in following way.

Demographics and current account balance

The relationship between demographic factors and current account balance is very rich in recent empirical literature. The most frequently used theories are Life Cycle Hypothesis (LCH), Overlapping Generation Model, New-Keynesian DSGE model and others. The countries experiencing demographic transition are considered vital for the analysis of current account balance. LCH suggested that the people in different age groups have different patterns of consumption and saving. It also suggested that young cohorts initially own no assets and they depends on their working wages and considered as net consumers same as retirees. This changing behaviors of the people in different ages leads to change in the saving behaviors this implies that people in mature working age save more and they spend out of their saving at the time of retirement. So the higher the portion of none-productive population (young and old) can leads to create negative impact on savings and thus leads to create negative imbalance in current account balance. The main variables used in the analysis are youth and old-age dependency ratios and population growth rate to capture the changes in size of the population.

Stage of Economic Development Current Account Balance

The theoretical link between stage of development and current account balance is very rich in the empirical literature. Traditionally Standard neo-classical theory suggested countries with low capital/labor ratios will tend import capital from advanced economies and the may experience to run under current account deficits, such that capital flows "downhill". In recent years, the opposite pattern has been observed in cross-border capital flows, giving rise to the "Lucas paradox". Lucas (1990) explained that capital flows to emerging economies have been lower than expected because of domestic distortions that lower the risk-adjusted returns to capital. These distortions may include underdeveloped financial markets or weak institutions, and may explain why financial capital tends to flow "uphill". Nonetheless, it has been observed that foreign direct investment continues to flow "downhill" (Prasad et al., 2006) towards poor countries, resulting in small net flows (Ju & Wei, 2006). The most frequently used indicator for level of development is per capita income. Some other studies also used the size of the economy through the gross national product. Since there may be nonlinear effects, such that the marginal impact on current-account balances increases for larger relative income gaps, the squared relative income per capita is also included.

Quality of Institutions and Current Account Balance

Literature has also indicated the theoretical relationship between quality of institutions and CAB. One explanation for the Lucas paradox of capital flowing "uphill" is that weak institutions lower the risk-adjusted return to capital in developing countries (Alfaro et al., 2005). The quality of legal and regulatory systems may also affect a country's level of financial development (Levine et al., 2000). The governance is determined through several indicators some the most important determined by World Bank are; Democracy score, corruption, , political risks, political stability, voice and accountability, regulatory quality, control of corruption, rule of law, financial freedom, government effectiveness and investment freedom.

The Model

The "soft power" variables are more likely to have an impact on current account balance in the cross-section rather than the time series and we developed a model by following Cevik (2015) and Cheung et al. (2010) accordingly our starting equation will be as:

$$CAB_{i,t} = \alpha_{i,t} + \beta SOFT_{i,t} + \gamma Z_{i,t} + \varepsilon_{i,t}$$

Where CAB is the current account balance for country i in year t and $SOFT_{i,t}$ is the structural measure for soft power in country i and time t. $Z_{i,t}$ is the control variables notion for country i and in time t and $\varepsilon_{i,t}$ is the random error term.

Further this model will be developed as following with incorporation of control variables and soft power measures:

$$CAB_{it} = \beta_1 + \beta_2 POP_{it} + \beta_3 DR_{it} + \beta_4 GEF_{it} + \beta_5 PS_{it} + \beta_6 GDP_{it} + \beta_7 INF_{it} + \beta_8 NFA_{it} + \beta_9 CR_{it} + \beta_{10} TO_{it} + \varepsilon_{it}$$

Technically the study found some evidence from the literature there is bulk of structural measures to evaluate soft power, and there were some conflicts among the previous studies to choose appropriate proxies for soft power, so after having a detailed look on the previous literature the study incorporated five structural variables for soft power, accordingly population growth (POP), Dependency ratio (DR), government effectiveness (GEF), political stability (PS), net foreign assets (NFA) and GDP are measures of soft power. Control variables are also selected among the best suited significant variables of Current Account Balance which are inflation, trade openness and domestic credit to GDP ratio.

Table 1: Variable description

Variable	Description	Variable	Description
CAB	Current Account Balance	INF	Annual CPI inflation rate
POP	Population Growth rate	TO	Trade openness
PS	Political Stability Index	GDP	Real Gross domestic product
GEF	Government effectiveness index	CR	Domestic Credit to private sector GDP ratio
NFA	Net foreign assets	DR	Dependency ratio

In this study panel data of concerned variables which has been described before. Panel data, time series and cross section are three types of data which are mostly used for empirical analysis. Time series observes the values of two or more variables over a period of time and in cross section the values of one or more variables are collected for several subjects at the same point in time. While the panel data set have the components of both, as its measures the cross sections over time so the panel data sets have time as well as space dimensions. It's mostly used to analyze the change over time e.g. social change, development or growth, to check trends in any social phenomenon, policy evaluation, and casual models and in estimation of treatment effects.

we have used the panel data set for 7 south Asian countries with the focus on to measure the soft power in these countries and their impact on current account balance. Data is taken from World Development Indicators (2018), IMF data set of world economic outlook (2018) and World Governance Indicators (2018) which provide a long time comparable data for all economic, demographic, financial and governance variables for South Asian countries, i.e. Pakistan, Bangladesh, India, Sri-Lanka, Bhutan, Nepal, Maldives. Secondary data for each country on the above-mentioned variables is taken for the period 2000-2018.

Estimation Methodology

There are a number of econometric techniques to test the hypothesis given in the study by using panel data set. This includes a variety of estimation layouts but for the context and requirement of the study the study only elaborated the Pooled OLS, the fixed effects model, the random effects model and least squares dummy variable (LSDV) model. All intercepts and coefficients are assumed to be same in constant coefficient model (i.e. there is neither significant temporal effects nor significant country). In this way time dimensions and space of pooled data are ignored. Thus data is pooled and ordinary least square (OLS) regression model is run. So such models have very highly restricted assumption about the model. Though the OLS model is simple but it depicts the true picture of the relationship between the independents and dependent across the cross-sections.

Here with the situation to cross-section or time are applied to the fixed effects model with different variations. The fixed effects model has slops constant but intercept differ to the cross-sectional (group) unit. For i classes' i-1 dummy variables are being used to assign the particular country, sometimes this model is called the LSDV model. There is another fixed effect panel model where slope coefficients are constant, but intercept varies over individual/country as well as time. On the data fixed effect model (FEM) with differential intercept and slope can be applied, but by the inclusion of many variables and dummies may give such result for which interpretation is not manageable, because of inclusion of many dummies may cause the problem of multicollinarity. There is no reason to pool if; all of these are statistically significant (Gujarati, 2003). While in the random effect model it is assumed that the intercept to be random outcome variable, whereas the random outcome is a function of random error plus mean value, For estimation purpose two way random effects model is being used. Random effects model was suggested by Swamy (1971) and Swamy and Arora (1971) and Swamy et al., (1988a, 1989) suggested and extended the random effects model as;

$y_{it} = \beta_i' x_{it}\ , \qquad t = 1, \ldots . T(i), i = i, \ldots, N$

$\beta_i = \beta + v_i$

Where

$E[V] = 0\ and\ Var[v_i] = \Omega$

This model is generalized group-wise hetroscedastic model.

For best model selection among these three types of models, significance test with Breusch-Pagan Lagrange Multiplier test, and efficiency test of F-test and Hausman Specification Test are conducted.

Pooled OLS

While assuming the first condition that all coefficients are fixed the study could pool all of the data and run can simply run an OLS regression model as follows,

$$CAB_{it} = \beta_{1i} + \beta_2 POP_{it} + \beta_3 DR_{it} + \beta_4 GEF_{it} + \beta_5 PS_{it} + \beta_6 GDP_{it} + \beta_7 NFA_{it} + \beta_8 INF_{it} + \beta_9 TO_{it} + \beta_{10} CR_{it} + \varepsilon_{it}$$

Where i stand for the *i*th cross-sectional unit and *t* for the *t*th time period, here in our study there are seven countries or cross sectional units, so i is 1 to 7. While time period is from 1996 to 2014, which are 24, so t is from 1 to 24.

Panel data approach

A panel data, also known as longitudinal data, it is a data set following an arranged sample of individuals over time, and hence offer multiple explanations on each individual in the sample (Hsiao 2003). Consequently, explanations in panel data involve at least two dimensions; a cross sectional dimension, designated by the subscript i, and a time series dimension, designated by the subscript t.

A general panel data regression model is written as:

$$Y_{it} = \alpha + \beta x_{it} + u_{it}$$

The use of panel data is valued due to the multiple advantages it offers and these are listed as follows:

1. It controls individual heterogeneity.
2. It contains more degrees of freedom and sample variability compared time series data or cross sectional data.
3. It has greater ability for seizing the complexity of human behavioral than a single cross section or time series data.
4. Unobserved or mis-measured variables are controlled in panel data.
5. Panel data has the ability to observe effects that cannot be recognized through the use of cross sectional or time series data.
6. Complex behavioral models are easier to construct and test on panel data than on purely cross sectional or time series data.

Fixed Effects Model (FEM)

In the second step to vary the country and cross sectional intercepts the study can use LSDV fixed effects. To specify the comparison dummy for Pakistan is not used in the following model.

$$CAB_{it} = \alpha_1 + \alpha_2 D_{2i} + \alpha_3 D_{3i} + \alpha_4 D_{4i} + \alpha_5 D_{5i} + \alpha_6 D_{6i} + \alpha_7 D_{7i} + \beta_2 POP_{it} + \beta_3 DR_{it} + \beta_4 GEF_{it} + \beta_5 PS_{it} + \beta_6 NFA_{it} + \beta_7 GDP_{it} + \beta_8 INF_{it} + \beta_9 TO_{it} + \beta_{10} CR_{it} + e_{it}$$

Where D_{2i} =1 if the observation belongs to cross-section 2 (Bangladesh), 0 otherwise; D_{3i} =1 if the observation belongs to cross-section 3 (Bhutan), 0 otherwise and so on.

Random Effects Model (REM)

Two ways random effects model is used for estimation purpose as follows.

$$CAB_{it} = \beta_{1i} + \beta_2 POP_{it} + \beta_3 DR_{it} + \beta_4 GEF_{it} + \beta_5 PS_{it} + \beta_6 NFA_{it} + \beta_7 GDP_{it} + \beta_8 INF_{it} + \beta_9 TO_{it} + \beta_{10} CR_{it} + \varepsilon_{it}$$

Instead of treating β_{i1} as fixed, it is assumed to be a random variable with a mean value of β_1 and the intercept for an individual company can be expressed as;

$$\beta 1i = \beta 1 + \varepsilon i \text{ where } i = 1,2,3 \ldots\ldots, N$$

Where ε_i is a random error with a mean value of zero and variance of σ^2_ε

Therefore

$$CAB_{it} = \beta_{1i} + \beta_2 POP_{it} + \beta_3 DR_{it} + \beta_4 GEF_{it} + \beta_5 PS_{it} + \beta_6 NFA_{it} + \beta_7 GDP_{it} + \beta_8 INF_{it} + \beta_9 TO_{it} + \beta_{10} CR_{it} + \varepsilon_{it} + \mu_{it}$$

$$CAB_{it} = \beta_{1i} + \beta_2 POP_{it} + \beta_3 DR_{it} + \beta_4 GEF_{it} + \beta_5 PS_{it} + \beta_6 NFA_{it} + \beta_7 GDP_{it} + \beta_8 INF_{it} + \beta_9 TO_{it} + \beta_{10} CR_{it} + \omega_{it}$$

Where $\omega_{it} = \varepsilon_{it} + \mu_{it}$

Under these circumstances, the random error v_i is heterogeneity specific to a cross-sectional unit. This random error v_i is constant over time. Therefore $E[V_i^2 | x] = \sigma_i^2$

The random error ε_{it} is specific to a particular observation. For v_i to be properly specified, it must be orthogonal to the individual effects.

Model Specification Test

The study incorporated three test; Hausman test, Breusch-Pagan test and F-test, test to select appropriate model.

Fixed Effects hypothesis testing

To check which model is better, we use a formal test for two models. Pooled regression model is used as the baseline for our comparison. We can perform this significance test with an F test resembling the structure of the F test for R^2 change (Akbar et al. 2011).

$$F_{Groups\ effect} = \frac{(R^2_{LSDV} - R^2_{pooled})/(N-1)}{(1-R^2_{LSDV})/(NT-N-K)}$$

Here T is the total number of temporal observations, N is the number of groups or cross-sections, and k is the number of repressors in the model. If we find significant improvements in the R^2, then there is a statistically significant group effects.

Random or Fixed Effect Models

To select the model between random effect and fixed effect the most commonly used test id Hausman Wu test. The Hausman test is a kind of Wald χ^2 test with k-1 degrees of freedom (where k = number of regressors) on the difference matrix between the variance-covariance of the LSDV with that of the random effects model. The Wald statistic is

$$W = (\beta_{FE} - \beta_{RE})'(V_{FE-}V_{RE})^{-1}(\beta_{FE} - \beta_{RE})$$

Breusch-Pagan Lagrange Multiplier Test (LM Test)

The Breusch–Pagan LM statistics test the selection among the random effect model and pooled OLS.

$H_O: \sigma_T = 0$

$H_a: \sigma_T \neq 0$

The LM Statistics is

$$LM = \frac{nT}{2(T-1)}\left[\frac{\sum_i(\sum_t \hat{e}_{it})^2}{\sum i \sum t \hat{e}^2_{it}} - 1\right]^2 \sim \chi^2 \text{ Under } H_0$$

3. Results and Discussions

In order to determine which model is more appropriate for our study (FEM or REM), the HST is carried out. To back up our result, i.e. REM is to be used, the BP-LM test is also performed and the results are shown in tables given below. After having the thorough discussion regarding the methods used in the current study we have reached on the following results. This chapter is about the results with incorporating methodology discuss in the 4th chapter which are Ordinary Least Square Model (OLS), Least Square Dummy Variable Model (LSDV), Random and Fixed Effect Models, we followed Akbar et al. (2011) and Rajasekar & Deo (2014) to estimate the comprehensive results of the current panel study. We started with the simple Descriptive Analysis.

Table 1: Descriptive analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
CAB	133	-3.460	7.493	-31.354	14.599
POP	133	1.650	.593	-1.609	2.992
DR	133	70.330	17.130	47.727	103.254
GEF	133	-0.249	.459	-.986	.910
PS	133	-0.788	1.060	-2.812	1.308
NFA/GDP	133	17.376	18.703	-6.389	76.399
GDP	133	5.767	3.313	-7.812	19.919
TO	133	68.382	45.262	21.552	219.255
INF	133	7.032	3.750	-2.803	22.394
DC/GDP	133	31.058	12.764	6.675	63.053

Descriptive analysis of the study shows that there are 133 observations included in the analysis of eleven variables, included one dependent and ten independent variables. Main (target) variables of the study are current account balance (CAB), population (POP),

dependency ratio (DR) Government effectiveness (GEF political stability (PS), and GDP other control variables are also selected among the best suited significant variables of Current Account Balance, which are inflation (INF), domestic credit to GDP ratio (DCGDP) and trade openness (TO).

The mean value of the CAB in last 19 years of South Asia is -3.460; Standard Deviation is 7.493, and over the period minimum value of CAB is -31.354 while Maximum value is 14.599. The mean value of POP is one 1.65 its Standard Deviation is 0.593 while its minimum value is -1.609 and maximum value is 2.99. Mean value of GDP is 5.765, S.D is 3.313, minimum value is -7.812 & its maximum value over the period is 19.919. If we talk about the INF its mean value in the selected time frame is 7.032 its S.D is 3.75, minimum value is -2.803 & maximum value is 22.394. Trade openness (TO) is also one of the targeted variable its mean value is 68.38, its S.D is 45.262, maximum value is 219.255 while minimum value of TO is 21.552. NFAGDP has 76.399 maximum values, while its minimum value is -6.389, its S.D IS 18.703 and its mean value over the selected period is 17.376. A large deviation in the values is because of the diversified sample in which different characterized countries included. We can elaborate the other variables as well.

To check which model is appropriate for our study, we use F-test (efficiency test) for models between OLS and Fixed Effect Model (FEM) / Random Effect Model (REM).

$$F_{Groups\ effect} = \frac{(R^2_{fix} - R^2_{pooled})/(N-1)}{(1-R^2_{LSDV})/(NT-N-K)}$$

$$F = \frac{(0.6241 - 0.4812)/(7-1)}{(1-0.6241)/(133-7-6)}$$

$$F = \frac{0.1429/6}{0.4035/120}$$

$$F = 0.02381/0.00313$$

$$F = 7.6070$$

F-test value is more than 5, which shows that it is highly significant. So we can say that OLS results are not appropriate so we incorporate REM or FEM for appropriate results. However OLS Model is not appropriate for our study.

Table 2: Model selection tests

Specification Test	P-Value	Tested	Selected Model
F-test	0.000	OLS/FEM	Fixed
Breusch and Pagan	0. 834	OLS/REM	Pooled
Huasman test	0.0442	REM/FEM	Fixed

The important thing of these pooled OLS results is that co-efficient shows superiors values as the F-statistics has p-value 0.000 which is highly significant and rejects OLS estimations. These results are robust in nature because we have used a diversified panel data set. So for further discussion on the analysis the study regressed Least Square Dummy Variable (LSDV) Model for CAB, by incorporating 6 Dummy Variables for each country excluded Pakistan.

Table 3: Fixed Effects Model (LSDV) for CAB data

Variable	Co. efficient	Std. Error	t-Statistics	P-Value
Constant	-19.115***	6.9445	-2.75	0.006
POP	-5.230***	1.184	-4.42	0.000
DR	0.347***	0.091	3.84	0.000
GEF	-5.876**	2.917	-2.01	0.044
PS	-1.069	1.157	-0.92	0.356
NFAGDP	0.233***	0.072	3.23	0.001

GDP	0.286*	0.149	1.93	0.0543
TO	0.049	0.031	1.57	0.115
INF	-0.238	0.154	-1.55	0.21
DCGDP	-0.126*	0.064	-1.96	0.050
Bang (D1)	-11.979**	5.533	-2.16	0.030
Bhut (D2)	-13.367***	4.763	-2.81	0.005
Indi (D3)	2.709	2.607	1.04	0.299
Mald (D4)	-10.953***	4.097	-2.67	0.008
Nep (D5)	-5.979	4.26	-1.40	0.160
S.Lanka (D6)	-1.7565	3.444	-0.51	0.610
R^2 = 0.5965				
F- Test = 181.07				
Prob > F^2 = 0.000				
*** Significant at 1% level, ** Significant at 5% level , *Significant at 10% level				

Table 3 shows the results of LSDV model for CAB, in the above table it is clear that POP negatively significant for CAB. It means with the increase in the POP growth rate decrease the CAB by 5.230, due to one unit change in POP growth rate. DR is the dependency of less than 15 years and above than 64 year people on the people between 15-64 (working age people) year old, it has positively significant effect on the CAB. One unit increase in the DR brings 0.347 unit increase in the CAB deficit. GDP has positive and significant impact on CAB in south Asian countries.

Table 4: Corresponding cross-section/ country intercept (Fixed Effect)

Intercept	Country	Value
1	**Pakistan**	-19.115
2	**Bangladesh**	-7.136
3	**Bhutan**	-5.748
4	**India**	-21.824
5	**Maldives**	-8.162
6	**Nepal**	-13.136
7	**Sri Lanka**	-17.359

Intercepts for different countries used in the panel data are shown in the table 4 it is clear from them that Pakistan intercept value is -19.115, which is less than the intercept values of Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka. However India's intercept values are less than Pakistan. So we can say that CAB is higher India and Pakistan than the other countries of the region.

Table 5: Breusch & Pagan Lagrangian Multiplier test for Random Effect

	Var	Sd = sqrt (var)
CAB	56.153	7.494
E	29.279	5.41
μ	1.418	1.191
Chi^2 (1) = 0.04		
Prob > Chi^2 = 0.834		

To test the hypothesis for RE in the model, the value of chi^2 is 0.04 and probability is 0.834 which reject H_0. It means RE is not perfect in our analysis so we follow the FE Model which is good for our analysis. And the results of FEM already discussed in table 5.5 which clear define that there mix effects of target variables on the CAB.

Table 6: Hausman test

Variable	Coefficients		Difference
	Fixed Effect(b)	Random Effect(B)	(b-B)
POP	-4.852	-4.621	-0.231
PS	-4.607	-4.093	-0.514
DR	0.115	0.147	-0.033
GEF	-0.921	0.238	-1.158
NFAGDP	0.142	0.144	0.028
GDP	0.348	0.235	0.112
TO	-0.0076	-0.011	0.004
INF	-0.489	-0.344	-1.463
DCGDP	-0.065	-0.101	0.036
Chi^2 (9) = 17.30			
Prob>chi^2 = 0.0442			

The study applied the Random and Fixed effect Model calculated and given in appendix. There is a test which can help to choose REM or FEM developed by Hausman in 1978. The Hausman test clearly rejects the null hypothesis for estimated chi^2 value. The probability of chi^2 is 0.0442 which is < 0.05 as a result we can reject REM (ECM) in favor of FEM. This table also shows the difference between RE and FE.

The study's findings about the hypothesis which is empirically examined in penal of 7 South Asian countries shown very similar results with the previously conducted studies. We cannot neglect the importance of Soft Power in affecting the CAB in South Asian countries. The current found relationship between soft power measures are supported with some previous studies, like Jaffri et al. (2012) also found the same relationship between demographic factors and current account balance, Cheung et al. (2010) found the similar relationship with structural indicators with current account balance. However, some of the soft power factors are not tested frequently in previous literature so the relationships found with some factors like government effectiveness index, political stability and dependency ratio are based on the current findings of the study with reference to theories. Overall results of the present study are very much satisfactory as this is the unique study with the subject of implications of soft power factors on current account balance so it is comprehensive set of evidence for the further researchers to find the exact relationship by incorporating more factors and more country specific analysis.

4. Conclusion

This study examines the relationship between soft power and current account balance in a penal of seven South Asian economies over the period from 2000 to 2018. The study incorporated population growth, dependency ratio, political stability, government effectiveness, GDP, net foreign assets, domestic credit, trade openness and inflation as soft power measures in a single penal model. The used Least Square Dummy Variable (LSDV) Fixed Effect model, Pooled OLS and Random Effect model with standard diagnostics of Hausman test, Langragian Multiplier test and F-test for model efficiency. The econometric analysis is also supported by standard diagnostic test for serial autocorrelation, heteroskdasticity and multicolinearity.

The econometric analysis includes pooled OLS, Fixed Effect LSDV, Fixed Effect Model and Random Effect Model. The models are selected on the basis of F-test of model efficiency, Breusch & Pagan Lagrangian Multiplier Test, Hausman Wu test. These tests suggested that the fixed Effect with country specific is the best model. The value of Hausman test is 0.044 which is less than 0.05 which rejects the null hypothesis indicates existence of fixed effect in

the model. Diagnostics tests indicated that there is no Heteroskedasticity, serial correlation and there is no multicollinearity among the variables used in the model. The results of the study are similar to the existing literature on the subject where political stability index significant in decreasing the current account deficit, increase in dependency ratio leads to increase the current account deficits, population growth is negatively associated with current account balance, NFA is positively associated with current account balance and increase in domestic credit leads to decrease the current account deficit in South Asia. Other soft power measures government effectiveness, domestic credit to private sector and political stability are negatively associated with current account balance. Trade openness and GDP have positive and significant relationship with current account balance, while with inflation there is negative relationship.

The results of the study are consistent with previous literature and for similar results Cheung et al. (2010) suggested that targeted policy reforms could help to reduce the current account imbalances over the medium term. So accordingly this includes policies to improve regulatory frameworks and financial markets in South Asian economies. A shift away from export-led growth strategies in India, Pakistan and other South Asian economies could also reduce the incentives for reserve accumulation. The significant role of dysfunctional financial regulation behind the surge in private borrowing levels in the South Asia suggest that policies to reform financial regulation would encourage deleveraging and reduce the external deficits over the medium term to long term.

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