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Unemployment Alleviation: Does Social Overhead Capital Matter? An Empirical Evidence From SAARC Countries

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ABSTRACT

The main objective of the present study is to reduce unemployment considering the role of social overhead capital in the SAARC countries. The study is based on the panel data covering the time period 2000 to 2018. Different forms of social over head capital like Transportation infrastructure, Telecommunication sector infrastructure, social sector infrastructure, Financial penetration and renewable energy sources are used in the research. Panel cointegration techniques and Fully Modified OLS method are employed for estimation. The research concludes that the all forms of infrastructure are compatible with theory and highly significant for unemployment mitigation. It is suggested that the SAARC economies should develop social overhead capital and formulate the joint policies to investment more in telecommunication sector energy sector and social sector infrastructure like health and education.

Introduction

Macroeconomic problems like high unemployment, low GDP growth rate and rising general price level are not only destabilizing the underdeveloped economies but developed nations are also being affected up to some extent. The severity of unemployment is observed in regional economies. South Asian association for regional corporation (SAARC) is a big regional association. It was structured on 8thDecember 1985. The countries that are included in SAARC are namely Afghanistan, Bhutan, Bangladesh, India, Nepal, Maldives, Pakistan, and Siri Lanka. SAARC country's area is the three percent of the total world area. Almost 21 percent of the total world's population is living in SAARC region. During the year 2018, the GDP growth rate of India is 6.8 percent and Pakistan's growth is 3.3 percent

(UNDP Report 2019). The literacy rate of India and Pakistan is 83.4 percent and 58 percent, respectively. However, the highest literacy rate is noted in Maldives i.e., 98.6 percent followed by Bangladesh i.e., 93.2 percent. The life expectancy of Maldives and Bangladesh is 77.34 percent and 72.49 percent, respectively. As far concerned the unemployment rate, the highest rate of unemployment is in Afghanistan i.e., 11.73, followed by Maldives i.e.,7.18 and India has unemployment rate 7.11 percent while the unemployment rate in Pakistan is 4.65 percent.

The main purpose of the SAARC is to promote the economic relations among all the nations of region. Its fundamental goal is to enhance the social and economic development process. It can be possible only by optimal utilization of the material and human resources. In this way, the people may enjoy the improved quality of life. Therefore, this study has discussed the role of social overhead capital to face the challenges posed by the unemployment and underemployment in the region.

Many economists have carried out the research on the social overhead capital. Natural capital includes rivers, forests, oceans, water, and everything above the earth's atmosphere. Transportation infrastructure includes railway lines, roads and air transport passengers, harbors, and ports. Telecommunication infrastructure includes fixed telephone subscription and, fixed broadband subscription etc. Financial sector includes banks branches and ATM cards holders. Energy generation facilities are also a part of the study.

C.P Kindle Berger (1978) states that investment in all the sectors of the economy can bring balanced growth in the economy. This balance may be between the agriculture sector and industrial sector, consumer goods industries and capital goods industries. Rosenstein Rodan(1943) was the first economist to present the Balanced Growth Theory. According to this theory, social marginal product of an investment is always different from the private marginal investment. Therefore, the economy would grow at the greater pace as individuals always prefer private marginal product over social benefits. As a result, many industries would help to reduce the unemployment to attain the economic growth.

Unemployment is a serious problem which affects the economy directly and indirectly. Loss of the jobs causes the psychological distress and a reduced standard of living. People who are willing to work but are unable to find the suitable employment are known as the unemployed. A situation where workers and the firms are searching for each other, but they are not identical is said to be the frictional unemployment. The energy workers are willing to devote, skills, experience, working hours, job locations that are not always the same. Sometimes, workers decide to move from one job to another. The considerable amount of time which they spend in finding another suitable job is called the frictional unemployment.

Sometimes, people remain unemployed or out of work for a long run period of time. It means when people are not in work force and remain intact for a long

period of time, known as the structural unemployment. It occurs due to two reasons. First, when people do not possess the enough skills to get the long-term desirable jobs. Second, when people are reallocated from industries that are shrinking to those regions that are progressing. Seasonal unemployment and the technological unemployment are also the part of structural unemployment.

The main purpose of the study is to examine the role of social over head capital in unemployment reduction. The rest of the research is arranged on the following grounds. After a brief introduction, the second section provides the review of the past studies. Data sources and methodological issues are explained in the third section. The fourth section discusses the findings of the study. The last section offers the concluding remarks.

Literature Review

A large number of studies are conducted on the issue of unemployment. A very few important and relevant studies are reviewed just in order to support the current research. Amin et. el. (2020) developed the association among the variables like employment, education, and poverty. The study was based on Panel data covering the time period 1995 to 2017. The existence of the long-run relationship among the variables was observed through the findings of padroni and Johanson Fisher techniques. Bashir et. al. (2013) analyzed the effect of social overhead capital on economic growth. They had based their study on unbalanced growth theory by focusing on the factors of social overhead capital i.e. education, transportation and telecommunication. The study concluded that educational expenditures and railway infrastructure moved the economy on the growing path.

Siyal et. al. (2013) traced out the link between economic growth and unemployment in the SAARC countries. The study suggested that the government should make such political and financial policies that reduce intra-reginal restrictions on investment.

Pradhan et al (2015) attempted to find the impact of information communication technologies, financial development on economic growth in the Asian countries. Panel data were collected from various sources such as World Development Indicators for the period from 2001 to 2012. Composite index of communication technology with five variables and Financial sector infrastructure including seven variables were constructed. The study incorporated Panel Padroni co-integration test and Granger Causality tests for the analysis. The study concluded that countries like Iran, Iraq, Japan, Kuwait, Malaysia and Philippines heavily rely on the oil revenues. Moreover, the study focused on to initiate the new programs for the technological improvements in communication sector.

Kumari and Sharma (2017) established the link between socio-economic infrastructure and economic growth in India. Time series data were used to check causal relationship among the variables using vector Autoregressive model and

Granger Causality tests. The findings showed that the socio-economic infrastructure was directly related with economic growth. It was concluded that agricultural development, improvement in living standard of different communities, poverty reduction, social and regional development, employment generation and manufacturing sector development were subject to the infrastructure development.

Zia and Waqar (2017) examined the employment generation projects by the CPEC. The paper incorporated the concept of globalization through the comparative advantage theory. The results of the study showed that transformation in all aspects of life is necessary by adopting the policies of interaction among nations in the present globalized world. The study evaluated the performance of CPEC. The primary data were gathered from the six roads projects. The study concluded that this project was not only providing the employment opportunities, but also enhancing their working capacities. The results reported that only 5% employment was attributed to the people ofChina and 95% employment were being provided to the Pakistanis.

Pradhan (2019) showed the link between transportation, financial influence and economic growth. Panel data from 1961 to 2016 were taken from the World Development Indicators. The study included emerging economies like Argentina, China, India, Indonesia and Turkey and developed countries such as Australia, Canada, France, Germany, Italy, UK and USA. Financial penetration included seven different indicators. Transportation index was constructed on the basis of five variables. VECM was used to check the direction of causality. The Fully Modified Ordinary Least Square test was employed in the analysis. The findings confirmed that the suitable policy measures might raise progress by appropriate financial and transportation infrastructure.

Saidi and Mongi (2018) investigated the impact of education, information and communication technologies, research and development on the economic growth. The analysis utilized the panel data for the years from 1990 to 2015 from WDI. It includes the twenty-eight high income countries. The results of the unit roots confirmed that all the variables were stationary at first difference. The Vector Error Correction Model showed that there existed short run causality from education to economic growth. The results of the Granger causality showed that there was a two-way causality between GDP and internet users and between research and development and GDP.

Shah and Khan (2019) examined the effect of available infrastructure on the foreign direct investment in developing economies. Panel data for the period from 1990 to 2009 were collected. Sources of the data were UNCTAD, Penn World Tables 7.0 and World Development Indicators. The results revealed that telecommunication infrastructure was having a favorable impact in drawing the inward FDI. However, high inflation caused to decline the inward FDI. The present analysis also helped in providing the understanding of the mobile phone infrastructure that is helpful for the policy makers for making their investment decisions in the Asian region.

Material and Methods

This section provides the information about data set, methodological issues, and model specifications.

Data Sources

The present study is based on the panel data. the selected region is SAARC economies and covered time period for analysis is 2000-2018. Different sources of data are considered. But the main source of data collection is World Development Indicators. Other sources are international Road Federation (IRF), world Bank (WB) and international Monetary fund (IMF)

Methodological Issues

Considering the nature of data in our study, the panel data analysis techniques such as panel unit Root test, panel padroni co-integration and fully modified ordinary least squares method are to be used appropriately. The general form of the Panel data regression model is given as follows.

$$Y_{it} = {}_1 + {}_2 X_{it} + «_{it} \qquad (1) \longrightarrow$$

Where, "Y" and "X" variables are attached the subscripts "*i*" and "t", *i* = 1,2,3,…,N group and t = 1,2,3,…,T time periods.

Panel Unit Root Test

Panel unit root tests are an extension of DF and ADF tests. We provide some tests that are used to examin or resolve the issues of stationarity and non-stationarity.

The Levin, Lin and Chu test

This test is developed by Levin, lie and Chu in 2002. It is an extension of DF test. It is given in the following equation

$$\Delta Y_{it} = \sim_i + \circ Y_{i,t-1} + \sum_{k=1}^{n} \varnothing_k \Delta Y_{i,t-k} + ¢_{it} + {}_t + u_{it} \qquad (2) \longrightarrow$$

The IM, Pesranand Shin (IPS) test

IM, Pesaranand Shin (1997) constructed the extended form of LL test and allowed heterogeneity on the coefficient of $Y_{i,t-1}$ variable. IPS had proposed the following model.

$$\Delta Y_{i,t} = \sim_i + \circ Y_{i,t-1} + \sum_{k=1}^{n} \varnothing_k \Delta Y_{i,t-k} + \mathbb{C}_{it} + u_{it} \longrightarrow \quad (3)$$

The Maddala and WU (MW) test.

Maddala and WU(1999) tried to reduce the problem of all other tests up to some extent and developed the following test.

$$\prod = -2\sum_{i=t}^{N} \ln \prod_i \longrightarrow \quad (4)$$

Panel Padroni Cointegration

Padroni (1997, 1999 and 2001) suggested many tests for cointegration in panel data models that permit heterogeneity. Padroni has suggested the following panel regression model.

$$Y_{i,t} = \sim_i + \mathbb{C}_t + \sum_{m=1}^{M} {}_{mi} Xm_{i,t} + u_{i,t} \longrightarrow \quad (5)$$

Further, Padroni has proposed the following cointegration statistic in order to examine the existence of long-run relationship.

(i) The panel V statistic.
(ii) The panel $\circ$ statistic.
(iii) The panel t-static (non-parametric)
(iv) The panel t-static (parametric).
(v) The group $\circ$ (statistic)

Full Modified ordinary Least Squares method

After examining the existence of long-run relationship using padroni co-integration test we have to estimate our proposed model based on the panel data. fully Modified ordinary least squares Method is considered the most suitable technique for estimating the coefficients of the model. FMOLS provides better estimates than OLS method when the heterogeneous panel is integrated of order on i.e. I(1). FMOLS provides consistent standard errors and t-statistics.

Model Specification and Description of the variables

In the present study, the specified form of unemployment function for the SAARC countries is given in the following

$$UN = f(TRSI, TESI, SOSI, FNSI, TLFR, REME) \longrightarrow \quad (6)$$

This model includes almost all the explanatory variables related to social overhead capital in order to see their impact on unemployment reduction. The econometric form of the above model in case of panel data is specified as follows

$$UN_{it} = {}_{o} + {}_{1}TRSI_{it} + {}_{2}TESI_{it} + {}_{3}SOSI_{it} + {}_{4}FNSI_{it} + {}_{5}TLFR_{it} + {}_{6}REME_{it} + \varepsilon_{it} \quad (7)$$

Where "i" subscript indicates countries and "t" subscript shows time period.

Variables Description

The variables used in the specified model are explained with their measurement and hypothetical sign.

Transportation Sector Infrastructure (TRSI)

We have taken different measures of social overhead capital. Transportation sector infrastructure is one of them. It is an index that includes the variables such as logistic performance index, air transport freight, railways goods transported, railway lines and air transport passengers. It is expected that transportation sector infrastructure index is negatively related to unemployment.

Telecommunication Sector Infrastructure (TESI)

The second most important proxy of the social overhead capital is telecommunication sector. This index is based on two variables such as fixed telephone subscription and fixed broad band subscription. Theoretically telecommunication sector is the major source of employment generation and has negative impact on unemployment.

Social Sector Infrastructure (SOSI)

Social sector infrastructure is another important source of unemployment reduction. This index is based on health care expenditure, education expenditure and primary school enrollment. It is hypothesized that SOSI is negatively related to unemployment.

Financial Penetration Index (FNSI)

Financial sector development plays an important role in employment generation. This financial index includes the commercial banks branches and commercial bank borrowers.

Renewable Energy Sources (RENE)

Energy becomes a vital factor for economic revival. New sources of the energy and development in energy sector are very important for employment generation. Theoretically, it reduces the unemployment.

Total Labour Force (TLFR)

The present study has used the total labour force as an explanatory variable. Theoretically increasing labour force is an indicator of rising unemployment because of low employment opportunities.

Results and Discussion

In this section, we discuss the findings of the study. First of all, we provide the interpretation of the descriptive analysis by statistical description of data and Correlation analysis. Secondly, we explain the findings of the econometric analysis.

Descriptive Analysis

In Table 1, descriptive statistics shows that the average value of the unemployment is -4.65 and the median value is -0.1844. The maximum and the minimum values are 2.846 and -1.966. The average value of the Social sector infrastructure (SOSI) is -2.09.Its median is 0.05645. The maximum value is 2.31876. Its minimum value is -2.4967. The composite index of the variables related to the telecommunication infrastructure (TESI) shows that the mean value is 6.14. Its median is 0.3568. The maximum and the minimum values are 3.8040 and -1.151947 respectively. The variables of composite index related to the transportation infrastructure (TRSF) reveal that the average value is -1.8. The median value is -0.6312. The maximum value of transportation infrastructure is 8.5818. Moreover, the minimum value of this variable is -1.4800. The mean value of the energy infrastructure (RENE) is 50.24. The maximum and minimum values have also been shown. The maximum value of the Renewable Energy Resources (RENE) is 93.45288. The minimum value of Renewable infrastructure is 0.9030. The median value of RENE is 48.7388. TLFR is revealing the total labor force. The average score of total labor force is 0.4642. The median is shown by the value of 0.4227. The maximum value of labor force TLFR is 0.81320. The minimum value about 0.27640.

Table 1
Descriptive Statistics of Selected Variables

	Mean	Median	Maximum	Minimum
UN	-4.65E-16	-0.18448	2.846092	-1.966601
TRSI	-1.87E-16	-0.63114	8.581811	-1.480038
TESI	6.14E-17	-0.35689	3.804055	-1.151947

SOSI	-2.09E-15	-0.05645	2.318762	-2.496661
FNSI	1.17E-16	-0.08429	2.912842	-2.728876
RENE	50.24212	48.73885	93.45288	0.903032
TLRF	0.464299	0.422750	0.813200	0.276400

Correlation Analysis

Table 2
Pairwise Correlation Matrix

	UN	**TRSI**	**TESI**	**SOSI**	**FNSI**	**RENE**	**TLRF**
UN	1.000						
TRSI	0.098	1.000					
TESI	-0.012	-0.090	1.000				
SOSI	0.009	-0.113	-0.001	1.000			
FNSI	-0.289	0.173	0.722	-0.157	1.000		
RENE	-0.516	-0.159	-0.237	-0.010	0.124	1.000	
TLRF	-0.397	-0.331	-0.125	0.504	-0.291	0.380	1.000

The results for the correlation analysis for the panel data show that there is not any sign of multicollinearity among the variables. All the correlation coefficients are less than 80%. The problem of multicollinearity does not exist. There exist a positive relationship between Transportation Infrastructure (TRSI) and Unemployment (UN) by a 0.098 percent. The degree of association between Telecommunication (TESI) and Transportation Infrastructure (TRSI) is 0.090 percent and it is showing the negative relationship. Moreover, Telecommunication Infrastructure and Unemployment are also negatively related with each other. There is a negative association between transportation sector infrastructure and social sector infrastructure and between telecommunication infrastructure and social sector infrastructure by the degree of 0.113 and 0.001 percent respectively. However, the relationship between unemployment and Social sector infrastructure SOSI is positive. The degree of association between them is of 0.173 and 0.722 respectively. On the other hand, there exists a negative relationship between Financial Penetration and Unemployment (UN) and Social sector infrastructure (SOSI) and Financial sector infrastructure (FNSI). They are related by the degree of 0.289 and 0.157 respectively. There exists a negative relationship between Renewable energy resources (RENE) and Unemployment (UN) by the degree of 0.516, between renewable energy and Transportation sector infrastructure (TRSI) by the degree of 0.159 percent, between RENE and Telecommunication sector infrastructure (TESI) by the degree of 0.237, and between the renewable energy resources and the Social sector infrastructure (SOSI) by the degree of 0.010 percent. Lastly, there exists a positive relationship between Labor Force (TLFR) and Renewable energy resources(RENE), and between Labor Force (TLFR) and Social sector infrastructure (SOSI) by the degree of 0.380 and 0.504 respectively. The remaining variables show the negative relationship between

each other. The relationship between labor force and unemployment is negative by the degree of association of 0.397 percent. The relationship between Labor Force (TLFR)and Transportation infrastructure (TRSI) is negative by the degree of 0.331 percent. The degree of association between the Telecommunication (TESI) and Labor Force (TLFR) is of 0.125 percent. It shows the negative relationship between each other. Moreover, the Financial Penetrationand Labor force are negatively related and showing the 0.291 percent association between each other.

Econometric Analysis

Table 3
Findings of Panel Unit Root Test

Variable	Levin, Lin and Chu		Pesaran and Shin W-stat		ADF - Fisher Chi-square		PP - Fisher Chi-square	
	Level	1st D	Level	1st D	Level	1st D	Level	1st D
UN	1.132	-6.884	1.418	-5.979	12.477	63.582	7.382	78.075
	0.871	0.000	0.922	0.000	0.710	0.000	0.965	0.000
TRSI	-0.855	-15.092	-0.873	-11.664	24.937	173.44	28.873	139.432
	0.196	0.000	0.191	0.000	0.070	0.000	0.024	0.000
TESI	0.778	-6.798	1.925	-5.312	9.033	56.563	8.957	57.223
	0.781	0.000	0.972	0.000	0.912	0.000	0.915	0.000
SOSI	-1.120	-9.0196	-0.789	-7.335	19.499	77.449	19.617	99.471
	0.131	0.000	0.215	0.000	0.243	0.000	0.237	0.000
FNSI	2.530	-2.706	3.148	-4.490	14.201	50.972	12.427	63.089
	0.994	0.003	0.999	0.000	0.583	0.000	0.714	0.000
RENE	-3.063	-6.126	-0.732	-6.407	18.436	67.960	12.476	80.817
	0.001	0.000	0.231	0.000	0.299	0.000	0.710	0.000
TLRF	-2.256	-2.260	0.574	-2.724	15.484	34.774	10.606	34.642
	0.012	0.011	0.717	0.003	0.489	0.004	0.833	0.004

Table 3 reveals the results of the panel unit root test. The first column shows the results of the Lvin, Lin and Chu for all the variables. The variables included in the test are Unemployment (UN), Transportation related Infrastructure (TRSI), Telecommunication sector infrastructure (TESI), Social infrastructure (SOSI), Financial penetration (FNSI), Renewable Energy resources (RENE), and Total Labor Force (TLFR).The results of the Levin, Lin and Chu tests show that all of these variables are non-stationary at level. But after taking the first difference, all the variables become stationary. The second column is of Pesaran and Shin W-Stat. It also shows that all the variables are first checked with intercept and then with trend and intercept. At level, all the variables are not stationary and the null hypothesis cannot be rejected. All of these variables are again checked at first difference once with the intercept and then with the intercept and the trend. The results show that null hypothesis is rejected at the first difference. All the variables become stationary at I(1). The third column is of ADF – Fisher Chi-Square. It reveals that all the variables are not stationary at level. Null hypothesis is accepted of non-stationarity. On the contrary, the alternative hypothesis is rejected that all the variables are stationary. Therefore, the variables are again checked once with the intercept and

with intercept and trend. At this step, all the variables are stationary. Null hypothesis of non-stationarity is rejected and alternative hypothesis is accepted. Lastly, in the fourth column, PP – Fisher Chi- Square test has been applied on all of these variables of the unemployment model. All the variables of this model are not stationary when unit root is checked at level by the PP – Fisher Chi- Square test. But alternative hypothesis of stationarity is accepted and null hypothesis of non-stationarity is rejected when this test is applied at the first difference. At this first difference, all the variables become stationary.

Results of Panel Padroni Cointegration

Table 4
Cointegration Test

	Panel Statistic				Group Statistic	
	Statistic	**Prob.**	**Weighted Statistic**	**Prob.**	**Statistic**	**Prob.**
v-Stat	-0.788	0.784	-0.742	0.771	_	_
rho-Stat	2.763	0.997	2.932	0.998	4.192	1.000
PP-Stat	-2.286	0.011	-0.698	0.002	-5.308	0.000
ADF-Stat	-2.731	0.003	-1.693	0.045	-3.209	0.000

After checking the stationarity of the selected variables, co-integration test is applied. The results of the various unit root tests show that all the variables are non-stationary at level but they become stationary at first difference. This is the condition that is fulfilled because all the variables are I(1). The next step is to perform the panel co-integration tests to examine the long run relationship among the selected variables. Pedroni panel co integration results are reported in the table 4. The null hypothesis is that all the variables are not co-integrated. On the contrary, the alternative hypothesis is that all the variables are co-integrated. The values of the PP-statistic, ADF-statistic, group PP-statistic and group ADF-statistic suggest that null hypothesis should be rejected. Alternative hypothesis is accepted that shows that all the variables are co-integrated and there exists a long run relationship among all the selected variables.

Table 5
Estimates of FMOLS Method

Variable	**Coefficient**	**t-Stat**	**Prob.**
TRSI	-0.0185	-0.65387	0.5145
TESI	-0.07537	-3.43639	0.0008
SOSI	-0.05216	-3.59282	0.0005
FNSI	-0.06158	-2.54735	0.0122
RENE	-0.00771	-3.04733	0.0029
TLRF	1.894813	4.643141	0.0000

Table 5 provides the findings of unemployment model for SAARC countries. These estimates are obtained by using fully modified ordinary least squares method. It is noted that social overhead capital has negative impact on unemployment. Theoretically, the findings are sound and supports the theory. The Coefficient of transportation social infrastructure index (TRSI) is negative and statistically insignificant. An increase of one unit of TRSI, reduces unemployment in SAARC region about 0.019 units. We have observed that the Coefficient of TESI is not only negative, but it is highly significant at one percent level of significance. The better and improved telecommunication sector raises the employment opportunities in the region. The unemployment decreases about 0.0754 units, due to one unit increase in TESI.

The findings disclose that the social sector infrastructure turns out to be a vital factor for employment generation. The value of the coefficient of SOSI is negative and statistically highly significant at one percent level. The unemployment reduces about 0.0522 units because of an increase of one unit in social sector infrastructure in all the SAARC countries. Moreover, we have found that the financial penetration plays a very important role in providing employment opportunities and discouraging unemployment. The Coefficient of FNSI is negative and highly significant. An increase in one unit in Financial Penetration the unemployment falls about 0.0616 units. The reasons may be that the development of all indices of social overhead Capital in the form of improved transportation sector like railways, roads, schools, colleges hospitals and financial sector development like commercial banks etc generate more employment. It is further diagnosed that the Coefficient of renewable energy sources is negative and statistically significant. The coefficient of total labour force is positive and statistically highly significant at one percent level of significance. The Coefficient of TLRF is 1.895. It means that unemployment rate increases about 1.895units due to one unit increase in total labour force. The reason may be that the existing employment opportunities are not matched with rising total labour force in region.

Conclusions

The present study has explored the role of social overhead capital in reducing the issue of unemployment in the SAARC region. The panel data for the period 2000 to 2018 has been used to detect the problem of unemployment. Different forms of social overhead capital indices like transportation infrastructure, telecommunication sector infrastructure, social sector infrastructure, Financial penetration and renewable energy resources are used to check their influence on unemployment. Panel data analysis techniques like panel unit root test that cofirms the stationarity of the variable at first difference and Panel Pedroni Cointegration technique is used to examine the long-run relationship among the variables. Fully Modified ordinary Least-Squares method is used to estimate the model. All the variables confirm the theoretical justification and empirically soundness. The study reveals that the social overhead capital formation is necessary for reducing unemployment in SAARC region. It is evident from the present research that SAARC countries need the more

diversified forms of capital for curbing the issue of unemployment. The following policies are recommended for resolving the issue of unemployment through the development of social overhead capital.

1- The government should develop and expand the transportation facilities by constructing new roads, spreading the new railway lines, and improving the air travel services. Moreover, the SAARC's Government should solve the transportation problems in the region.

2- It is suggested that the telecommunication facilities should be improved and provided at large scale among the SAARC's nations.

3- The present study suggests that the social sector infrastructure like health and education should be promoted and modernized. There should be arranged the education exchange programs among the researchers,educationists, and students especially in science and technology among the SAARC regions. Such new educational and health institution should be established that meet requirements of modern era.

4- As we have observed based on the findings, that financial sector infrastructure plays a very important role in the region. So, it is suggested that banking sector should be developed at the modern level.

5- The governments of the SAARC countries should explore the Renewables energy sources and control the population growth in order to reduce total labour force.

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