AIUB Journal of Business and Economics
Volume 11, Number 1
ISSN 1683-8742
August 2014 pp. 01-27

The Development Discourse in the Context of Bangladesh: A Critical and Analytical View

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Abstract

Economic development is believed to be contributed by several different factors including human capital, physical capital, savings, investment, infrastructure development etc. As such, different schools of thought have evolved to explain economic growth and backwardness in countries. This paper critically analyses leading development theories in the context of Bangladesh and argues that the literature concentrates heavily on the economic subsystem (factors of production) while neglecting interrelated and complementary counterpart, institutional subsystem (ownership over the means of production). However, in order to find a suitable solution for underdeveloped economies, institutional aspects are to be properly emphasized.

Key Words: *Economic development, development theory, institutions, Bangladesh*

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1.0 Introduction

The debate on 'why some countries are rich and others poor' is not a new rather as old as the human history. Even though the debate has generated an extensive curiosity among scholars since the time of Adam Smith due to inventing new ways and methods of exploring economic problem, the mystery is yet unresolved. Interestingly enough, while the unending and counterfactual arguments are still in progress, the gap between the rich and poor countries continues to grow even at a faster rate. Maddison (2001) reports the historical growth account of regions that shows that in the 1500, per capita GDP of Asia was $572, Africa $414, and $400 for Western offshoots. In 1950, the respective figures rose to $634, $894, and $9,268. While Africa was richer than Asia in 1950, GDP per capita of Asia ($3,256) surpassed Africa ($1,489) but far less that of Western Offshoots ($26,943) in 2001. This proves that income gap between regions is widening at an increasing rate, rich getting richer and poor getting poorer.

It is however, inconclusive to argue that the fortune of development has touched any specific regions or areas but income disparity within regions is also widespread. For instance, in Asia some newly industrialized economies (NIEs) such as Hong Kong, Singapore, Taiwan, and South Korea have clearly accelerated the pace of their economic prosperity. Per capita incomes of these NIEs have increased nearly sixteen-fold in the past forty years (Quibria and Dowling, 1996). Coming closer, difference in economic performance between two neighboring countries can be so huge that sometimes the gap appears to be the polar extreme. Current level of economic development between South and North Koreas is its glaring example. South Koreans have 17 times the income of North Koreans. Moreover, real per-capita GDP in the United States is about four to eight times that of Mexico. Not so long ago, as late as 1930s, the Finns and Estonians enjoyed a similar standard of living (O'Driscoll and Hoskins, 2003). Despite the two countries are virtually neighbors, in 2000 the average Finn earned two and a half times to seven times more than average Estonian. In the past, substantial differences in standard of living existed between the East and West Germany before unification. Hong Kong and Singapore border much larger and poorer neighbors. The real per-capita GDP of Hong Kong, a former colony of Great Britain, now exceeds that of the mother country. Despite its own recent economic miracle, China's real per-capita is about one-fourth of Taiwan's. Richard Easterlin (1981) thus, asks "Why Isn't the Whole World Developed?" Or in other words, why some countries have progressed while others have retrogressed?

Economic theory has evolved to account for the successes and failures. However, there is no one-size-fit-all formula because some strategies seem to work for a while and then stall; some strategies seem to work in some countries and not in others. As a result, a diverse and intellectual body of discourse has evolved at both national and international levels to explain economic malaise of developing countries.

Like many developing countries, Bangladesh was a test case for international development agencies including World Bank and IMF. For example, Faaland and Parkinson (1976) observing the socio-economic and political conditions in the 1970s entitled the economy as "the test case of economic development". Four decades have passed; since then no one can reach to a conclusion whether Bangladesh has succeeded or failed in this test. Obviously, Bangladesh has developed its place from where it was three decades ago. Jeffrey Sachs is, thus, keen to credit Bangladesh for its achievement and argues "Bangladesh shows us that even in circumstances that seem the most hopeless there are ways forward if the right strategies are applied, and of the right combination of investment is made" (2005:10). Despite this positive view, Sachs, however, recognizes that Bangladesh is in the first rung of development ladder and has a long way to go. The fact that the country has managed to place itself only in the first rung of development ladder spending four decades since its independence in 1971 bears the testimony of what A. Hossain concludes "in the test for economic development, Bangladesh has failed" (1996:15). Various economic models are developed to explain economic underdevelopment of Bangladesh. The paper attempts to critically analyze these models in the context of Bangladesh. In so doing, relevant data and facts are drawn from different countries.

The paper has been structured as follows: section two illustrates the economic condition of Bangladesh showing various historical data in order to assess the level of economic development of the country. In section three we explain to what extent Bangladesh can achieve economic change through agrarian development because most underdeveloped countries rely much on agriculture as a base for economic take-off. Section four focuses on infrastructural development as a means for big-push. The very influential model, neoclassical growth model, is separately discussed in section five whereas section six enumerates what is still missing from the development discourse which is followed by a brief conclusion.

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1 Amount represents dollars in 1990 prices. Asia constitutes excluding Japan, Western Offshoots comprises of Canada, USA, New Zealand, and Australia.

2.0 Economic Reality of Bangladesh

Bangladesh is a poverty stricken country, no doubt. The country is characterized as dual economy having urban elites and the miserable poor in the rural where more than 75 % of the total population lives. The crucial means of livelihood for the rural people is agriculture which is even vulnerable to natural calamity such as flood, drought, thunderstorm etc. Grossly, half of the total population lives with abject poverty. An official estimation of Asian Development Bank (ADB, 2011) shows that 41.13 % of the total population is living with income less than $1.25 a day. Although attempts have been made to increase the living standard, human development index changed positively only a tiny fraction from 0.42 in 1990 to 0.47 in 2010 based on which the country is ranked 132.

Gross domestic product (GDP) of the country is traditionally agriculture dominant. However, its share is in decline in the recent times while the vacuum has been filed by tertiary or service sector meaning that industrial contribution to the GDP is low. In 2010, more than half (52.6 %) of the total GDP was contributed by the service sector whereas industrial contribution was 28.5 % and the remaining 18.8 % contributed by agriculture. Labour force participation rate is little more than half of the total population with majority employed in the agriculture. A total of 52 % of the total employed labour force is absorbed by agriculture, 10 and 38 % are employed in the industry and service sector respectively. An estimation of ADB shows that annual value addition per worker in the agriculture is only $389 whereas the respective figures for industry and services are $1772 and $1389. Growth rate of gross value added by agriculture from 1980-1990 was 2.32 % which stood at 2.98 for the period of 1991-2005 whereas in the industry the respective figure was 4.79 % during 1980-1990 which increased to 7.11 % in 1991-2005 period (ADB, 2007). Not much change has taken place in the service sector as well. The sector grew at an average rate of 3.47 % from 1980 to 1990 and 4.88 % for the period of 1991-2005.

One concern thus arises that without structural breakthrough economic take-off in Bangladesh might not be possible. There is no doubt that industrialization should precede economic take-off as it is evident by the development experience of major developed countries. This proposition is more relevant for Bangladesh because while tertiary sector is expanding to a

[2] Constant at 2000 prices in US $

certain extent industrial expansion is still not taking place. If the economy heavily tilts in this fashion without a solid foundation of industrialization, any sudden downturn in physical production may end up with economic stagnation. Moreover, such a structural imbalance can be explained by the fact that lack of opportunities in other sectors has paved the way for flourishing tertiary sector in Bangladesh. Growth history of the East Asian countries and the recent unprecedented growth of Chinese economy shows that a buoyant and healthy industrial sector is utmost important to accelerate economic growth.

Table 1 shows basic macroeconomic indicators from 1960 to 2010. Before 1971 the economy of Bangladesh was virtually dependent on the policy and decisions made by the West Pakistan (now Pakistan). GDP growth rate fluctuated tremendously depending on the policy bias. In the period of 1972-1974 GDP growth rate was extremely negative because of the liberation war and was recovering gradually in the following periods. If the figures for the first two years after independence are disregarded as they are outliers, average GDP growth rate hovers around 5 % annually. However, this growth rate appears to be negative if we take into account high rate of inflation. From 1990 to 2010 the value of Bangladeshi currency has declined by almost 100 % against US dollar. In 1975, per capita GDP was $228 in which increased to $625 in 2010 (current price). Adjusting with GDP deflator, real GDP per capita growth appears to be negative. This scenario leads economists to conclude that a paltry GDP growth rate of around 5 % can hardly change the overall living standard of the people in Bangladesh taking population growth and inflation into account. Since GDP base is very small, US $97.86 billion (at 2010 price), 5 % growth is not sufficient enough to accelerate the country from Rostow's pre-take-off to take-off stage.

Table 1: Macroeconomic Indicators

	1960-'70	1971-'80	1981-'90	1991-'00	2001-'10
GDP Growth Rate (in %)	4.06	1.04	3.73	4.8	5.8
Population Growth Rate (in %)	2.35	2.36	2.36	2.14	1.37
Inflation (in %)	3.83	22.88	9.52	4.01	6.56
Gross domestic savings (% of GDP)	8.3	1.39	8.5	14.12	17.72
Gross capital formation (% of GDP)	10.7	9.38	16.75	19.72	24.08

Source: World Bank (WDI)

Agriculture contribution has declined over the years. However, the gap has been filed by tertiary sector meaning that industry has failed to play a dominant role to accelerate the growth. History is rare to show economies that have graduated to upper level of economic development without a strong industrial base. It is indeed, true that the country has earned self-sufficiency in food grain production because of its arable land and natural ambient, but it is increasingly relying on import for fixed capital goods including machinery, medicines, prepared foods, minerals, chemicals, and other high-tech products. In 1990, total export accounted for 5.1 % of total GDP which rose to 18.27 % in 2010 whereas total import increased from 11.6 % in 1990 to 28 % in 2010. Since its independence till now Bangladesh has been experiencing negative current account balance in almost every year. On the other hand, government fiscal budget can hardly meet up its fiscal and developmental budget. Resultantly, government reliance on both domestic and international debt has increased significantly. External debt alone accounted for 24 % of the GNI in 2009 which implies that a huge amount of money are flowing abroad to service the debt (813.9 million US dollars in 2007). However, in 2011 the net government debt is estimated to be 36 % of the GDP.

It does not matter which yardstick we apply, the country is poor indeed. It is still staggering with very low level of living standard and has failed to elevate the status from agrarian to industrial nation. How can explain such economic malaise in Bangladesh? In the following sections we evaluate various development theories that attempt to answer the question.

3.0 Structural Shift through Agrarian Development

Although its influence has declined considerably in the developed countries, the structuralist school of development economics has had a lasting impact on debates of development in underdeveloped economies. The school argues that a dynamic transformation from traditional agriculture dominated economy to modern industrial based society would take place if agriculture sector is modernized through improved technology and thereby increasing productivity. Because the critical issue for those countries which are predominantly agriculture base is to increase agricultural income which is further linked to raising the productivity of agricultural labour. Such a structural change will bring revolutionary demand for industrial output by which an economy will be ready for transition from agrarian to industrialization. We entitle such a theorem 'demand-driven' strategy of development. Modernization of agriculture is expected to increase productivity as well as purchasing power of

agrarian population which will ultimately lead to the rise of the demand for non-farm product. This increased demand will pave the way for industrialization.

This supposition is influenced by the work of Adelman (1984) who stresses that the role of increased agricultural productivity via technological innovation and increased investment in raising rural incomes for 'agricultural-demand-led-industrialization' (ADLI) is critical strategy for agro-based economies. Because of agriculture's institutional link with the rest of the economy, stimulating agriculture activities induces strong demand and thereby foster industrial expansion. Extending Adelman's thesis of ADLI, Vogel (1994) applies Social Accounting Matrix (SAM) – aggregate structural interrelationships among the various agents in an economy – to identify the importance of agriculture on industrialization and finds that at the low level of development, agriculture possesses strong backward links to non-agriculture production activities possibly as high as that a $1 expenditure in agriculture generates $2.75 in induced demand in non-agriculture demand and the link continues to increase during the course of development.

In the case of India, Chakravarty (1979) strongly favors agriculture-first strategy for industrialization. He argues that the desirability as well as the feasibility of an export-led industrialization strategy in a slow-growing economy will not be realized. Chakravarty further states that the long-term growth must primarily be based on the expansion of internal rather than external demand. Storm (1995) supports policies which advocate that raising agricultural production and income is likely to improve industrial performance because they expand the size of the domestic market and thereby Indian industrialization can be only sustained by agriculture.

This debate is critically important for the development issue of Bangladesh given the fact that more than half of the total employed labour force is currently engaged in this sector contributing more than one-fifth to the GDP. This phenomenon leads many economists to argue that development strategy in Bangladesh depends mostly on the development of agriculture. For example, Faruquee (1998), Plamer-Jones (1999) advocate policy objective for government to promote agricultural growth which will lead to reduce rural poverty. In the same token, Shajaat Ali (2007) contends that social change will not occur until food security is achieved and farm income increases to raise people's aspiration level. Such a mechanism for boosting agro-productivity is

coined 'green revolution' in the existing literature (M. Hossain 1988, Alauddin and Tisdell 1995).

Green revolution in agriculture gives a strong stimulus to non-farm employment through consumption linkage (M. Hosain, 1988). Not only that intensive agriculture requires industrial products to be employed in the sector and thus boost the demand for industrial goods but also higher agriculture income generated by green revolution stimulates demand for service and non-farm products which in turn creates job opportunity in the non-farm sector (Alauddin and Tisdell, 1995). Wage rate in the non-farm sector increase responding to higher demand leading to surplus labours who can be shifted from agriculture to non-farm sector. Increased income in both farm and non-farm sector brought by green revolution will be followed by an accumulation of capital through which capitalist development will take place. Khan (2004: 96).describes the mechanism of transformation

A necessary condition for a productivity transformation in agriculture would be the consolidation of landholdings into farms that were of higher productivity, and which could drive further productivity growth through the re-investment of firm surpluses. This type of transformation to higher productivity in agriculture has typically involved a capitalist transition that has created firms of a size adequate for generating and re-investment an agrarian surplus.

Needless to say that emergence of capitalist class is critical for industrialization in a country like Bangladesh. However, capital formation from surplus producing in agriculture does not seem to be a suitable option for development. We can resort to Lewis two sector model of economic development for possible explanation.

Lewis (1954) characterizes economies in the developing countries as having a dominant agriculture sector and a small capitalist sector. The dominant traditional sector is featured by huge presence of labour force working with subsistence wage i.e., wage rate equal to subsistence earnings. The overall population is so large relative to capital and natural resources that marginal productivity of labour is insignificant or equal to zero. This induces rural employers to employ more labour at subsistence wage as well as expand the sector as long as subsistence labour is available. As a result, rural traditional sector is unlikely to generate any reproducible capital and thereby capital accumulation. On the other hand subsistence wage hinders workers possibility

to save for non-farm consumption and improve their situation from subsistence level. This situation is termed as 'vicious-circle' or low level equilibrium trap.

In contrast, urban capitalist sector is very small where employers use capital for reproduction. Consequently, they recruit labour until marginal wage equals to marginal productivity. At this stage, capitalists enjoy huge surplus as profit which as new capital can be expanded for further investment. Since labour is still abundant in the traditional sector, expansion in the industrial sector is easier as long as investible capital is available and can be done so without hampering agriculture productivity. The process not only accelerates industrialization but also increases labour productivity in the traditional sector and continues until the labour surplus disappears. Thus, capitalist development is crucial for countries with large base of agriculture which will absorb surplus labour from traditional sector. From this view, Lewis argues that the central for economic development is the rapid accumulation which can be facilitated by altering income distribution to saving class.

In the context of Bangladesh, a close examination shows that labour force participation rate is almost constant in the agriculture sector. In 1983 employed labour in the sector comprised of almost 59 % of the total labour force which declined to 52 % in 2003. If we assume that the labour market in 1983 was in equilibrium, a declining share of agriculture to GDP in the subsequent period would be associated with an equivalent level of labour force shifted from the sector. However, agriculture share to GDP has declined from 31 % in 1983 to 22 % in 2003. This shows that over the year labour force engagement has reduced by 7 % while the share of agriculture to GDP has declined by 9 %. Assume that (I) technology is constant (II) share of agriculture to GDP growth rate and labour absorption rate from increased population are equal. In this case, even if we assume there was no excess labour in agriculture in 1983, it has accumulated 2 % excess labour over the period.

Now let us relax the assumptions. The second assumption holds in reality. Over the period of 1981-2005, GDP grew a little more than 4 % having agriculture share almost a quarter of it (4% × 0.25=1%). Meanwhile, population increased by more than 2 % and agriculture sector absorbed almost half of it (2% × 0.5=1%). But, the first assumption that technology is constant is not true. Over the year technology has increased in the agriculture significantly though not overwhelmingly. Use of both shallow and deep-tube

wells has increased by manifolds over the year (Adnan, 1999). Moreover, chemical fertilizers and pesticides consumption also increased substantially. Chowdhury and Shahabuddin (1992) report that the use of chemical fertilizers increased by 20 times from the period of 1965-66 to 1989-90 and more so in the subsequent period due to the privatization of fertilizer market. This implies that even though share of agriculture to GDP has declined over the period of 1983-2003, the labour force participation rate has not declined equally. This postulates that there is already excess labour in the sector. The adoption of technology to agriculture should bring at least two effects: swelling of output or release of labour force from the sector. But we see neither of these effects. It implies what Lewis (1954) has predicted for developing countries that the primary sector is overburdened by subsistence labour. If this is the case, attempt to increase the income of rural livelihood is unlikely to induce demand for industrial output and thereby, successful industrialization.

The validity of this proposition further can be derived from the fact that daily wage of human labour has increased by 104 % from the period of 1985 to 2000 whereas consumer price index has increased by 133 % over the same period. If we assume that subsistence earning was maintained in 1985, agriculture labours were forced to sink below this subsistence level at the later period because of the reduction of their purchasing power. From this vintage point, it can be concluded that it is rarely the case that economies including Bangladesh dominated by large traditional sector with relative small capitalist sector materializes its ambition of industrialization by adopting demand-driven strategy. Hirschman (1958: 109-110) argues "…agriculture certainly stands convicted on the count of its lack of direct stimulus to the setting up of new activities through linkage effects: the superiority of manufacturing... is crushing'. For Hirschman, the weak backward linkages of agriculture have failed to induce capital formation; hence, agriculture could not become the leading sector in the big push.

A study by Alauddin (1986) also extends support to the aforementioned proposition. He finds that in Bangladesh none of the key sectors on backward linkage is agriculture while only three agriculture sectors – cotton, other crops and livestock, are key sectors on gross forward linkage. However they are ranked quite low. He further notes that non-agriculture sectors rank high on output terms whereas agriculture and other non-industrial sectors rank high on employment. Since agriculture is mainly composed of

3 An estimate suggests that the share of the private sector in the fertilizer market increased from less than 5 per cent to more than 90 per cent over the period of 1987-92 (Shahabuddin, 1999).

primary industry, they usually requires small amount of inputs from other linkage industries. In the heyday of jute, Bangladesh was the highest producer and exporter of jute and jute-products. Just after few years, the market for jute plummeted with the invention of synthetic fiber. Despite the fact that theindigenous value addition to jute products was almost 100 %, it failed to stimulate demand for industrial output so that backward and forward linage industry could build up. In contrast, the ready-made garment industry is now passing its golden time with its continuous support to the economy. This success however cannot be attributed to the demand-driven pathway of industrialization because neither raw-cotton nor yarn is produced in Bangladesh. In this sense, primary industry provides very limited logic as a dominant development strategy at least for Bangladesh.

4.0 The 'Big Push' for Infrastructure Development

For explaining low productivity in agriculture as well as overall economic backwardness in underdeveloped countries, economists oftentimes resort to argue that inadequate public spending in the form of infrastructure is a critical constraint for such a demise economic performance. One of the major disadvantages of underdeveloped infrastructure is that it keeps agrarian society in a low equilibrium trap because of lack of easy transferability of primary products. As such, Rosenstein-Rodan (1943) proposes a 'big-push' in infrastructure investment needed for industrialization. He argues

> National and international investment should concentrate at the start on building of 'basic industries' and public utilities which give rise to new investment opportunities. 'Let us build railways, roads, canals, hydro-electric power-stations, the rest will follow automatically.' Where the lack of transport facilities is a flagrant obstacle to economic progress, which may indeed be the best start of development investment (1943: 8).

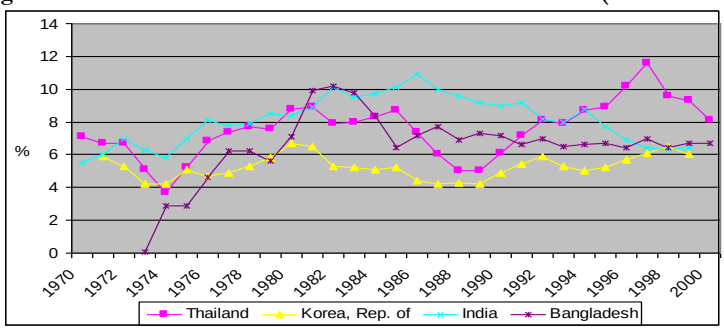
Since private investment is inadequate to undertake such massive investment because of externality involved, government has to play a crucial role in this regard. Nurkse (1958 has bestowed the precision and priority of the states' role to undertake such massive public investment. For Nurkse, the major impediment for underdeveloped economies is the economic size of local market. Bangladesh is represented by a large population but the purchasing power of the majority population is too pitiable to justify massive investment in the manufacturing sector. Low purchasing power not only undermines local private investment but also foreign investments are reluctant to flow despite the return on invested capital is attractive. Nurkse argues that abolishing

restriction on international flow of goods and investments, increasing export of primary products with inelastic and stationary demand would not work properly unless basic infrastructure is built to reduce transaction cost. As a result, initially "the marginal productivity of capital in the poor countries, as compared with the rich, may be high indeed, but not necessarily in private business terms" (1958:26).

In the context of Bangladesh, Rahman and Bakht (1997) contend that the poor performance of the economy can be attributed to a large part to inadequate public investment. Even though Khan and Hossain (1989) suggest that the lack of infrastructure in Bangladesh is a serious obstacle towards industrialization, they however, recognize that it is a formidable obstacle. Muhith (1999) however, believes that public spending is necessary for creating job opportunity for unemployed people so that poverty alleviation is possible.

Despite powerful proposition, validity and applicability of Nurkse's hypothesis depend on other aspects that are frequent happenstance in most developing countries. Public investment plays a vital role no doubt, but it is not sufficient condition for industrialization. If transaction cost increases because of lack of infrastructure, the same cost may increase because of political version of the 'tragedy of the common'. Special interest groups that recognize the prospect of gains from such public investment can spoil it by unproductive rent-seeking. In the absence of that constraint marginal productivity of capital in the poor countries would have been higher even in private business terms.

Figure 1: Public investment of some selected Asian countries (in % of GDP)



Source: Constructed from Everhart and Sumlinski (2001)

Figure 1 shows that public investment in Bangladesh is commensurate with many other developing and developed countries including South Korea, Thailand, and India. Public investment for South Korea was even lower than that of Bangladesh over the whole study period. Korea has succeeded

accelerating its economic growth whereas Bangladesh has apparently failed to change its fate. This dispels away the 'golden rule' advocated by influential economists that government can incur deficit budget and borrow so long as it relates to the development projects such as infrastructure development.
There is no scope to deny that if we build more roads the size of economy will shrink in terms of transportation and transferability of goods and products from one part of the country to other parts. As a consequence, local urban disparity would tend to disappear. If we ensure availability of energy and power for industries, obviously we can expect increased level of production. If we build more schools it is likely that more people will come to school for learning. These propositions are valid more for underdeveloped than developed countries because the elasticity of infrastructure to GDP in the latter case is not as pronounced as it is in the case of former countries. Nonetheless, one can easily argue that since underdeveloped countries are poor they do not have the capability to spend for infrastructure. Once the country achieve a certain level of economic development, infrastructure building would be easier. This implies that there might at least be two way causalities between infrastructure and economic development.

Inspired by this idea, Filmer (2007) questions: "if you build it (school), will they come?" to examine whether building more schools in the poor countries would bring more educated people. He finds that among the 21 sample countries the mean distance to nearest primary school is the minimum in Bangladesh and India (0.2 km) whereas Philippines ranks second with average nearest distance of 0.5 km. On the other, the nearest distance to the secondary school in Bangladesh is 2 km while in India it is 4.5 km, second among the sample countries. However, data shows that the primary completion rate in Bangladesh is less than it is in the Philippines. Similarly, secondary enrolment rate in Bangladesh in 2002 was 44 % whereas in Philippines it was 56 %. Based on this, Filmer concludes "…although increasing school availability can be a tool for increasing enrolments, it cannot typically be expected to have a large overall effects" (2007: 902). Despite the weakness of the study that it assumes quality of school does not differ across and within counties, it shows that building infrastructure does not ensure progress of the society.

Similarly, Mozumder and Marathe (2007) examine the relationship between per capita electricity consumption and GDP for Bangladesh and find that there is a unidirectional causality from per capita GDP to per capita electricity consumption. However, the per capita electricity consumption does not cause per capita GDP increase in case of Bangladesh. They argue that the

finding is not an exception rather for many countries both developed and underdeveloped GDP has a greater impact on power consumption rather than the other way around. This implies that 'big-push' strategy of infrastructure development through public spending is necessary at best but may not be a cheaper alternative in the development agenda. The reason is that public spending in most developing countries at the initial stage of their development may be considered `white elephant`.

5.0 The Neo-classical Growth Paradigm

Contrary to the notion of interventionist or development strategy through public spending neo-classical economists recognize certain factors such as capital, labour, and technology as the growth driver. They find that most of the poor countries are poor because they are also poor in accumulating these factors. If we put more capital, labour and upgrade technology, the growth of the country will follow. Realizing the importance of neo-classical prescription Hossain and Rashid (1996) argue that development means removing certain constraints. They further contend that "[a] country's development progress can be interpreted in terms of relaxation of various constraints and bottlenecks. Prominent of them are savings constraint, the foreign exchange constraint, and the agriculture supply constraint. With the relaxation of these constraints, an economy begins to grow and with it, undergoes a structural transformation" (1996:57). From this context, economic underdevelopment of South Asian in general and Bangladesh in particular can be attributed to be the result of the presence of such constraints. Similarly, Rahman and Bakht (1997) point out certain constraints which they term "structural and exogenous constraints" that are acting as hindrance to the industrial development in Bangladesh. As viewed by traditional growth model, critical constraints among them are savings and investment, infrastructure, human and physical capital etc.

Gross domestic savings and gross capital formation in Bangladesh have been increasing over time. However, both savings and capital formation are miniscule. Low saving means lower level of investment. Lower investment leads to low level of capital available for labour and the resulting lower productivity.

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[4] For example, in Japan it is seemingly the fact that building new paved roads yields very minimal social utility because necessary infrastructures are already there. In contrast, it is for sure that if you build more roads in Bangladesh it would forward social advancement

[5] Average primary completion rate in Bangladesh for the period of 1998-2002 is 77 % whereas in Philippines it is 95 %.

If productivity cannot be increased nothing would be left for savings after consumption. This is a sort of vicious circle to which underdeveloped countries are trapped and is the logic behind those who advocate for increasing these factors by removing constraints.

For instance, Huq and Love (2001) propagate that the slow growth of manufacturing results from low level of investment in the sector. They attribute the reason of low investment in manufacturing to `wrong types of investment` or inefficient use of capital funds. This postulates that unless the country accumulate for capital and technology, economic progress is highly unlikely.

Even though it is infeasible to rank among factors responsible for growth according to their relative importance for economic development in Bangladesh, A. Hossain (1996) however, is more pronounced to explain the pre-eminence of technology than other factors. He argues that without technological underpinnings economic prosperity in Bangladesh is hard to come by. In the same token, Ashraf Ali (1996) argues that in order for Bangladesh to reach the same level of economic development like East Asian economies by the next few decades, it is invariably necessary to update its technological frontiers. For Ashraf Ali "… the futures of all Bangladeshis are closely related to the policy of mechanization of production in all sectors of the economy in Bangladesh" (1996: 146-7).

The effect of capital and technology on productivity is examined by Robert Solow (1956, 1957). His pioneering work shows that capital intensity (capital/labour) is the growth driver which is further governed by rate of savings and population growth. If rate of saving is greater than replacement requirement (population growth plus depreciation of capital stock), a country grows but at a diminishing rate. This means that under this condition a country that functions at low capital intensity grows faster than a country with high capital intensity. In the long run they should reach to a steady state where savings equal to replacement requirement and thus, convergence between them should take place. This implies that capital stock has no effect for the long-run economic growth. The only force that continually leads to sustained increase in productivity, is technology. A country must have continuous technology advancement in order to grow over time.

[6] Steady state may be different for two countries depending on the magnitude of savings over capital requirement. Thus, the convergence here is called the conditional convergence.

If we accept Solow's explanation, Bangladesh which works at low capital intensity grows faster initially than a country like South Korea which has high capital intensity. Contrary to the model, their growth experience rather shows the reverse scenario. Barro (1991) finds no significant negative correlation between initial level of GDP (capital) and the subsequent growth for 98 countries in the period of 1960-1985. Moreover, if productivity or output per capita is driven by capital accumulation and a constant rate of technological progress alone, growth rate between the poor and the rich would have converged. This is because, capital is more productive in the capital scarce country and thus, the return on capital should be higher compared to capital-abundant countries. Resultantly, capital flows from the latter to the former until the return on capital is equalized.

Lucas (1990) examines this hypothesis and finds that in order to explain capital per worker gap between US and India which is 15 times , US workers should have 900 times more machine than Indians. If machine is so scarce in India, rate yielded by Indian machines should be 58 times larger. However, the real world is far from the situation the model has predicted. Similarly, King and Rebelo (1993) analyze US data for hundred years by which time the income per capita increased sevenfold. They conclude that transitional dynamic driven by capital accumulation cannot even explain half of this rise. Calibrating of the model to the data yields unreasonably high marginal productivity of capital in the early phase (real interest rate in excess of 100 %) which is a clear contrast with the model. Resultantly, the expectation of the model does not meet reality. Capital scarce poor countries grow slower than capital abundant rich countries and thus, instead of converging, countries are diverging. Moreover, capital is not flowing from the rich to the poor rather the other way around. Easterly (2002) report that in 1990, the richest 20 % of the population received 88 % of private capital gross inflows whereas the poorest 20 % received merely 1 %. If this is so, we cannot explain economic underdevelopment in Bangladesh relying merely on capital and technology.

Solow focuses on physical capital without segregating human capital which might contribute to the relative weakness of the model. This is exactly what Mankiw, Romer and Weil (1992) find after incorporating human capital in the Solow model which they call 'augmented Solow model'. They not only confirm the predictable accuracy of Solow model but also show that the magnitude of explanatory power of Solow model has increased after accounting for human capital.

[8] in the 1988 measure

The modified model can explain almost 80 % of the cross country variation of per capita income in 1985. Similarly Barro (1991) finds that poor country tends to grow faster than a rich country or convergence between them takes place only for a given quantity of human capital. This may explain economic underdevelopment in Bangladesh where a large %age of the total population is illiterate.

Average primary completion rate of Thailand for 1998-2002 accounted for 87 % whereas in Bangladesh it was 77 %. However, GDP per capita in Thailand in 2007 accounted for more than 6 times than that of Bangladesh. Similarly, the primary completion rate of Tajikistan is 99 % with per capita GDP less than half that of Bangladesh. In contrast, Ukraine achieves a lower primary completion rate (59 %) than Bangladesh but the GDP per capita of the former is more than double than the latter. Because of lack of significant co-relation between education and growth Easterly (2002:73) asks, "Where has all the education gone?" He argues that African countries despite their rapid growth in human capital over the period of 1960-1987, merely experienced growth disaster. Zambia has slightly faster expansion of human capital than Korea, but the former growth rate was seven %age point lower than the latter. Similarly, Eastern Europe and former Soviet Union parallel to Western Europe and North American countries in terms of years of schooling. However, former countries GDP are merely a small fraction of the latter. This implies that traditional growth drivers such as human capital, physical capital, and technology might be necessary at best but not sufficient conditions to explain economic underdevelopment in many countries including Bangladesh.

The importance of capital and technology for economic prosperity can hardly be denied. Moreover, the question is not whether capital and technology drive economic growth or not. Rather it is natural to ask: even though the capital is scarce in poor countries why do not people save capital or why capital does not flow from the rich to the poor? Why capitalists do not like higher return on capital? The pioneer work of Gerschenkron (1962) can provide a possible answer even Gerschenkron himself is an advocate of technology for economic development.

Gerschenkron argues that the history of industrialization in Europe is replete with the fact that country that adopted advanced technology was always in the frontline towards industrialization. For Gerschenkron, it is the 'tension' between the existing states of economic activities and the expected benefits reaped from industrialization that accelerates the process of industrialization.

He argues "… the contingency of a large imports of foreign machinery and of foreign know-how, and the concomitant opportunities for rapid industrialization with the passage of time, increasingly widened the gulf between economic potentialities and economic actualities in backward countries" (1962: 8). As such, it might be wise for backward countries at the threshold of industrialization to accommodate advance technologies because only when industrial development could commence in a large scale the "tension" between pre-industrialization condition and the expected gains from industrialization is strong enough to overcome the existing obstacles towards progress. The bigger the challenge or 'tension' the more is the volume of response to remove those obstacles.

The 'tension' between the current state of economic activities and the expected gain from industrialization for Bangladesh should be high taking into consideration the level of economic development. Thus, according to Gerschenkronian thesis industrialization in Bangladesh should take place in a great spurt. Unfortunately, we do not see such a trait even after waiting for a long time. If we accept Gerschenkronin thesis, this anomaly can be explained by the fact that that the expected gain is discounted so much so that 'tension' reduces to almost zero. Unless it is ensured that each is entitled to receive what he earns and also earning is linearly related to efforts, the gap cannot be transformed into a real tension to accelerate the pace of industrialization. This is where the real meaning of institutions is poised, which most development theories have failed to take into account.

6.0 Institutions Matter

Karl Marx shows the process for gradual development of a society. For Marx, development takes place by a complex interaction between different elements in a certain mode of production (Elster, 1986). The mode of production is used in the Marxian historical materialism to mean a specific organization of economic production in a given society. A mode of production includes the means of production or productive forces and also relations of production or property form. Productive forces include the means of production used by a given society, such as factories and other facilities, machines, and raw materials. It also includes labour and the organization of the labour force. On the other hand, the term relation of production refers to the relationship between those who own the means of production i.e., the rights on property.

Figure 2: Marx's analysis of the mode of production

<table>
<tr><td>Superstructure (political and ideological)</td><td rowspan="2">Cultural-institutional subsystem</td></tr>
<tr><td>Relations of Production (form of property rights)</td></tr>
<tr><td>Productive forces (technology, science, and human skill)</td><td>Economic subsystem</td></tr>
</table>

The development of society from one mode of production to another can be segregated by the differences on the relations of production. For example, in the Asiatic mode of production, the first of the historical mode of production, land was owned by the state. In contrast, in the capitalist mode of production, the latest evolution of the social system, land is owned by individuals. Because of this difference in the relations of production, the economic outcome is also different. According to Marx, politics and ideas are explained by the fact that they stabilize property rights whereas property rights are explained by the fact that they give an impetus to technical changes. This implies that it is not merely factors of production that play a crucial role for economic outcome but also the system of property rights that is also crucial.

Based on Marx, Hayami (2001: 10) categorizes the first two sets of components as cultural-institutional subsystem and the factors of production as economic subsystem. The evolution of social system is thus, a process of dialectic interaction between economic and cultural-institutional variables. If economic progress is measured by an increase in average per capita income then it is realized through the increase of per capita resource endowments or progress in technology that in turn increases the per capita value addition. In this sense, increase in economic resources and progress in economic technology is inseparably interrelated. However, the productivity of economic subsystem is constrained and influenced greatly by cultural and institutional subsystem of the society. For example, the rate of savings that can be transformed into investment is determined by the people's future preference over current consumption. This is greatly influenced by the value system and the institutional settings on which they interact. In this respect, Max Weber's (2002) proposition that protestant ethic is a source of capitalist development bears its testimony that value system of the society cannot be simply assumed constant but rather it is also an important determinant of social progress. In

this sense, the economic subsystem and cultural-institutional subsystem are interrelated and together influence the social outcomes.

Unfortunately the prescription prescribed to address the development backlash in developing countries in general and Bangladesh in particular is not well poised given the fact that economists concentrate heavily on the economic subsystem while neglecting its interrelated or complementary counterpart, institutional subsystem. Neoclassical prescriptions have not heeded at all on the proposition that society's economic system has too many complex parts and any fault on a critical part can disrupt the whole system and thus halt the growth caravan. Bethell contends

Economic analysis is like a suspension bridge. It can have all the fancy engineering you want, but at some point it must reach to the solid rock of law and secure political institutions. … Economic outcomes are thought to be satisfactorily explained by economic data. Growth is a function of "capital formation," for example. But capital is highly derivative abstract, a mere cable on the suspension bridge. Is the whole structure embedded in the solid foundation of secure property rights, enforceable contracts, an independent judicial system? (1998:2).

North and Thomas define institution as 'rule of the game' or "[a]n arrangement between economic units that defines and specifies the ways by which these units can co-operate or compete" (1970: 5). Institution comprises both formal constraints such as rules and regulations, and informal constraints, for example conventions, codes of conduct, and norms of behavior. Such institutions affect performance fundamentally by fostering better policy choices such as favorable tax regimes that encourage production, independence of the central bank, government commitments to protect the private property as well as to deter extortion, ensuring participation of citizens to voice against or in favor of government policy and the like. Differences in institutions may create different incentives and behavior among the people.

Organizations including political, social, economic, and educational bodies can be perceived as the players of the 'game'. They process or produce information and make decisions that reflect the capacity of the players within the institutional framework (North, 1990). The inherent tendency of the players is to maximize their utility within the existing constraints. Therefore, these constraints would ultimately decide whether welfare maximizing activities are taking place. The Soeharto government in Indonesia could allocate more than one trillion rupiah for off-budget expenditures (McIntyre, 2000), simply

because the customary institutions either allowed it to conceal the colossal pecuniary benefits legitimized by the cabinet, or the institutions were unable to create a framework that could check this expenditure effectively. In contrast, the parliament in seventeenth century England curtailed the crown's power – a power which allowed the crown suddenly to disband parliament by dint of the 'divine rights of king' in his own interests, undermining social and individual liberty – and subordinated this power to common law (North and Weingast, 1989). In the same token, de Soto (2000) contends that capitalism has triumphed only in the west and failed everywhere else because the legal structures of property rights give west the tools to save and invest surplus in a productive way.

In answering the question: why a worker in the United States produces as much output in ten days as one worker produces in a year in Niger (1988 account), Hall and Jones (1999) conclude that the differences in physical and human capital attainment can only partially explain this huge difference in per capita output, and that it is driven by differences in institutions and government policies which they call 'social capital'. They conclude that the 35-fold difference in output per capita between the two countries can be attributed by a factor of 1.5 to differences in capital intensity, 3.1 to differences in educational attainment, and the remaining 7.7 to productivity residuals or institutional variables. This concept of social capital is supported by Knack and Keefer (1997). Their definition of social capital such as trust and civic norms conforms mostly to the informal institutions, and they find that those elements of informal institutions are stronger in countries where formal institutions are well placed. In the case of USA, Olson's (1996) example is also worth to cite. He argues that according to the 1980 US census, salaried migrants to the US from Haiti, one of the world's least successful economies, earned half as much as their German counterparts did. Therefore, if Haitians, with their working habits and other personal traits, were to work in German institutional settings, their income per capita would have been half than that of Germans. But the actual level of earnings, which was one tenth, cannot be justified simply by attributing the gap to sheer productivity. Rather, it is a clear indication that the institutional arrangements of the country fail to direct resources towards maximum utility. From this vintage point, Olsen concludes that the poorer countries do not have a structure of incentives that brings forth productive cooperation.

7.0 Conclusion

Economic performance of any country depends on various economic and political factors. As a result, development theories are diverse in nature and therefore their goodness-to-fit varies across countries. This research aims at contributing to the existing debate on developing strategies for underdeveloped countries in general and Bangladesh in particular. As such, the research has critically analyzed leading development theories responsible for explaining disdain economic performance of underdeveloped countries. Dividing the elements that affect economic activity of any society into two sets- economic subsystem and institutional subsystem- the paper shows that neoclassical theories focus highly on economic subsystem to explain economic growth and backwardness across countries while neglecting institutional variables.

There is no scope to deny that savings, investment, capital formation, and infrastructure building contribute to the development of a country. However, the point to note is that what are elements that encourage people to save and invest? These are obviously the institutional settings of a country. Unless we focus on these institutional settings, the development discourse is incomplete. This is what we have tried to accomplish in this thesis by analyzing facts and issues of different countries. In this regard, we have focused on neoclassical growth model from various perspectives. Specially, a growing body of literature has emerged in the recent times to link agrarian constraint and economic performance particularly for developing countries. While we do not neglect the importance of agriculture, we have some reservations to rank the primary sector as the most promising way for a structural shift. Resorting to Lewis's dual sector model of developing economies we have argued that a huge labour force employed in the primary sector is basically subsistence labour. Unless they can be pulled and employed in a more productive sector, economic take-off is unlikely. This requires a vibrant and sustained industrial sector and a capitalist class. We then refute various theories of industrial development in the context of Bangladesh. Gershenkronian approach seems to be a promising one. For Gerschenkron, industrialization requires a 'tension' between the existing states of economic activities and the expected benefits reaped from industrialization. The higher the tension the greater is the force of industrialization. Considering the level of economic development in Bangladesh, one can conclude that the tension should be large. However, a notable pace of industrialization is still unseen. In this respect we have argued that unless it is ensured that each is entitled to receive what he earns and also earning is linearly related to efforts, the gap cannot be transformed into a real tension. Unless productive oriented institutions are installed, expected level of

economic progress is unlikely.

At the outset, institutional reform requires the practice of parliamentary democracy along with separation of judiciary from the executive. Like most third world countries, Bangladesh has achieved democracy not so long ago. As a result, the democracy is at its infancy which means that legitimacy crisis is still present. State's power to act according to the spirit of constitution is wanted by its quest for legitimacy. Political control is weaker and less centralized which is associated with pervasive rent seeking because political leadership cannot exert effective power to prevent rent seeking. As a result, strong patron client relation has been transformed into a social norm which means that patron provides client with various rights on property in exchange of client's support. This sort of institutions retard country's progress rather than accelerate it. Unfortunately, development debate focusing on institutional issues is much less prevalent especially in underdeveloped countries including Bangladesh. Unless we emphasize more on different institutional settings of a country, a suitable formula for growth is hard to come by.

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