

Full Length Research Paper

Return from education system in Bangladesh: An investigation on comparative flashback scenario

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This article examines the contribution made by the school system in Bangladesh using primary data gained from a small scale of research. Secondary data also supplements. Both formal and informal education gained from society and other sources are considered. Findings show that primary education contributes mainly for social development. Secondary provision also contributes for social development; a small contribution for economical development is also noted. Higher Education (HE) consumes a large portion of public and private fund to ensure economic development. Unfortunately, because of existing job pattern in Bangladesh and requirements placed for recruitments, contribution from HE is not satisfactory. Overall conclusion suggests that there is a scope for development at each provision. This study also advocates an urgent need to conduct a broader study on this issue to make the education system more effective towards the development.

Key words: Rate of Return (RoR), investment in education, informal education, employment market, manpower planning, economic return, social return.

INTRODUCTION

It is predominantly assumed that investment in education provides a significant return; therefore, countries are paying especial priority in allocating budget. A number of researches have been carried out in the field of return to investment in education (Psacharopoulos and Patrions, 2002; Harmon and Walker, 1999; Hartog et al., 1999; Appleton, 2000). Most of those find that return to investment in education is reversed (Hartog et al., 1999; Appleton, 2000). Most of the works emphasized to understand the return to investment in education in terms of financial benefit (Psacharopoulos and Patrions, 2002; Murphy and Welch, 1992; Card, 2001; Rouse, 1999). Scholars argue that even though the Rate of Return (RoR) for economic perspective is small, it may be higher in social development which is, somehow, nearly impossible to determine (Murphy and Welch, 1992; Card, 2001; Rouse, 1999). Factually, economic development and social development are interrelated, thus, it is worth-

to note that if education broadly contributed in social development, it would have an impact on economic development.

What is not education? - A question is merely impossible to answer. Education is subsequently provided by a number of providers (that is, religious institutions, paternal participation, media, development made by the globalization of 21st century, technological behavior changes and institutions of education, partners for development etc.). In order to calculate the RoR, a comparison between the contribution of education provided by school system and other providers is never made. The contribution made by other providers, while working on RoR, is not often recognized. The adherents of other fields often argue that not only official provision for education but also other providers of education (that is, media, participation and governance etc.) are playing a role in the development by educating the community. A study is yet to be conducted in Bangladesh to explore the contribution made from each of the fields (formal, non-formal and informal) individually. Once, we have the specific contribution from respective field, making comparison will just be a matter for calculation.

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Countries should have predetermined goal, aims and objectives which are supposed to be gained through education. Legislators often feel that achieving officially determined goal of education is a primary responsibility of formal school system (Alam, 2008a). Many instances have been found that other providers such as media, religious institutions, social clubs and globalization help to achieve the objectives of formal schooling. On the contrary, it is also noted that such providers hinder in achieving the objectives of formal schools as they may have other goals, purposes or vision which contradict with their school counterpart (Alam, 2008b).

Different levels and types of schools (that is, primary, secondary and tertiary) work contributing in a specific focus. For instance, primary education mainly works for the development of social freedom while higher education focuses mainly on economic attainment. If a particular kind of education is provided to do a special job, employment of this graduate in other job does not make any sense, nevertheless, it provides reverse return. Moreover, if graduates, employed with a higher or specified/differentiated diploma, do not fundamentally use their education in performing the tasks, also provide reverse return.

Given the discourse outlined, few research questions are generated:

1. What is the contribution made by different levels of education?
2. What is the contribution made by school system and other providers of education?
3. What is the disparity in selecting the aims of education provided by other providers?
4. What is the gap in the school system in contributing desired level of contribution?
5. How can school system contribute more significantly?

Finding section of this article intends to answer of these questions. We aim to provide a further model and food of thought in investigating the RoR of education in Bangladesh before drawing the conclusion. Prior to do this, we provide a review of literature and data collection and analysis coherently.

Literature review

Key findings from existing literature

A comprehensive study with a comparative analysis is yet to be conducted to calculate the contribution made by different levels and types of education (that is, primary, secondary and tertiary). Adherents of primary school provision argue that the overall RoR of primary provision is higher than secondary and higher education provisions. On the other hand, some scholars argue that RoR is always higher for the provision of higher education. Data from virtually every society show that post-secondary education ensures a higher income and grea-

ter opportunities for graduates (Altbach, 1999). Comparison between those who have attended college or university and those who have not attended shows consistent benefit to the degree holder. Even those who attended college or university but without earning a degree are better placed. There are variations between countries, but the pattern holds globally. Alam (2008b) also finds that RoR of higher education is not significant always because of low quality education offered and the nature of the course. Moreover, he also says that currently students are procuring education is for obtaining certificates rather than to know how to do the job. This attitude confirms a lower RoR from higher education provision.

Alam (2008b), using the data of industrialised country context, advocates that investing in child education provides more RoR. However, even though Bangladesh has increased a significant proportion of budgets for early childhood development with an especial focus on pre-primary provision, the RoR is a declining feature (Shahjamal and Nath, 2008; Alam, 2008b). Colin (1999) and World Bank (2002) explore that RoR of Vocational Education and Training (VET) is significant and which is higher than other types of education. Lewin (1993) finds the investment towards VET education is higher than others, but the RoR is comparatively lower.

The above argument generates some interesting questions to consider: does education really provide a significant RoR to the investment made, if not what is the problem(s) within the education. Even in case if it is proved that primary and secondary education contribute less than higher education, there is no way, we can stop operating primary and secondary education as these levels are the basis for higher education. Nevertheless, even if it is found that education in general does not provide a substantial RoR, stopping operation is not a solution, rather we need to discover how, the country can widely be benefited from the education. This research will inform some present status and scenario using following methods. It is intended that this will help us in formulating education policy in Bangladesh and its implementation.

Currently used methods of calculating RoR

According to Colin (1999), the calculation of RoR to education is not possible with the indicators currently used. Many researchers (Harmon and Walker, 1999; Murphy and Welch, 1992; Card, 2001; Rouse, 1999; Hartog et al., 1999; Appleton, 2000), working on 'Return to Investment in Education' aim to discover the ratio and equation of total earnings of graduates and the total investment required to produce¹ graduates. This way of

¹ It is interesting to note that, in order to produce a graduate, investment in the school is not the total investment required, as students enjoy subsidized national and international facilities (that is, subsidized transports and cafeterias).

calculating the RoR has been criticized by Psacharopoulos and Patrinos (2002) and Pritchett (1996). Alam (2008a) argues that high salary, received by the graduates does not mean that these graduates are comprehensively using their knowledge gained through school in performing the tasks or their works fundamentally contribute towards the development. The system of calculation of RoR by deducting the investment for preparing the graduates from the earnings of the graduates may work better in the developed countries because of the relevance of education system with existing work pattern and future action plan and proper taxation provision from earning of the graduates. Alam (2008a) also argues that sometime contrasts of the philosophical aspects of knowledge and different ways of interpreting knowledge between different providers or institutions (schools, different types of schools, media and informal institution) also restrict the proper calculation of RoR. An alternative calculation model is yet to be provided by them; however, some researchers argue that calculation of RoR must be based on the productivity of workers/graduates once they are in employment. Colin (1999) says that, even though in many cases in-service training does not increase worker income, Bennell (1996) finds that it (in-service training) makes them more productive and therefore it has a significant effect on development. Fagerlind and Saha (1989) argues that in the case of education and training programme, there is a need for a new policy to ensure that employees use gained knowledge in their daily practice. Failure to call on knowledge gained means they lose it and later investment in training will provide a reverse RoR.

Issues related to education pattern of many developing countries and employment patterns give grave concern, which need to be addressing. It is evident that profession-based jobs must be occupied by professional staff trained specifically for them. For example, a 'medical cadre' must be occupied exclusively by doctors, but graduates in medicine can work for other cadres² (that is, in administration, policing, foreign affairs, taxation). In addition, obtaining high scores in scientific subjects is easier when compared to the areas of Social Science and the Arts. Thus science graduates, especially doctors and engineers, take advantage of public service examinations. Moreover, every sector, enterprise and organisation (that is the army, banking and industry) needs its medical and engineering professionals, and therefore the Public Service Commission in developing countries creates an artificially larger job market for science graduates, specifically for medical and engineering graduates. In addition, the most profitable opportunity for science graduates, especially for doctors, is to enter private practice, either full or part-time. However, we argue that, if science graduates are employed within the public sectors and also busy in working in the private sector, who are to provide

the essential support for the enormous number of poor people, dependent on the public services?

The public service examination is a place for competition among Science, Social Science and Arts graduates. Graduates in the same subject do not generally compete against each other to acquire the professional job for which they have been trained. A graduate who has studied Arts or Social Science does not essentially compete with other graduates who have studied the same subject in the public service examination. Is the HE of developing countries able to produce an expert capable of doing the specialized job – or is it producing a graduate with a basic education? A further question arises: do jobs in Arts and Social Science of the public service examination require a person to have a basic education, or to be a specialist?

To have doctors and engineers working in different career areas (those of policing, administration and foreign affairs, for instance) proves that investing in the production of these graduates is ill-advised. We further argue that the earning of a graduate employed in an area for which they are not trained and not proficient, does not constitute an actual 'return to investment in education'. It also forces the nation to have a society of unemployed trained graduates (Alam and Khalifa, 2009). It can be seen that investing large amounts of money in the production of science graduates does not make sense if they work in the field of social science or the arts in professional life. Finally, we need to consider whether education creates jobs, or if education should be provided according to the needs of the job market?

METHODS

Before discussing the methods used for this study, we note that this study does not attempt to understand the RoR of Education. The main aim of the study is to understand the perception of the people for the usage of their education in carrying out economic and social activities while they engage with their regular jobs and social lives. We further believe that this study will provide a base for a comprehensive study to be conducted to understand the RoR in education financial. In order to understand the perception, we used the indicators which are used to measure the 'development index'. We also tailored these instruments making suitable to Bangladeshi context given the nature of economy, culture, tradition and political contexts. So, the study does not use and financial model of calculating RoR.

Determining methods in calculating return to education is the hardest job, thus, the discussion is often limited to informal communication although a number of scholars realize that education may not have a significant return. In order to understand a comparative situation, this study covered a number of respondents varying in their education levels and types and job pattern. Respondents who are involved with work (job) are only considered. 176 respondents with no education and 1200 with different level of education have been considered for survey part of this study. Of the 1200 graduates, 247 are primary, 219 are secondary, 231 are higher secondary and others are higher educated. We covered graduates studied different areas (that is, science, commerce, arts, engineering, medicine and other professional course). Quantitative data were used to understand their perception regarding the importance of their gained education in doing the jobs, for which they are involved and their

² But these jobs should be allocated for Arts and Social Science graduates.

change of behavior in respect to the social development. ILO uses a number of indicators for the survey to understand the linkage between productivity and education and training. Moreover, UNDP uses some indicators to understand economic and social development of an individual. Questionnaires of this study are designed following the indicators used by both the ILO and UNDP with necessary revision and modification for making more applicable to Bangladeshi context. Questionnaires also emphasized to understand the level of usage of education gained from school in performing the jobs they are employed. Some indicators also included in the questionnaires that informed the contribution of education gained through school for social development.

Interviews were conducted with 200 respondents who also participated in the survey. Of the 200 respondents, 46 have no education, 37 have primary education, 32 have secondary education, 47 have higher secondary education and the rest 38 have higher education. However, we covered the graduates studied in different fields as the way maintained for the survey. Interview data supplemented the data gained from survey. The group without having formal education is considered to understand the differences of the contribution made by primary graduates and individuals having no formal education. Thereafter, consideration of other levels of education helped to compare with each other. It is important to note that academic and scholars are not considered within the sample as this study aims to explore the issues with the workforce.

RESULT AND DISCUSSION

Contribution made by different levels of education

According to the perception of every group of respondents, education is very important for both economic and social benefits. Most of the respondents view that education provides diploma which is helpful to be employed which brings economic prosperity. This prosperity provides a social prestige. Most of the respondents with primary and secondary education perceive that this kind of social prestige is social development. The theoretical concept of social development is not clear to them. Data reveal that 100% respondents with no formal education do not face any difficulty in implementing the works for which they are engaged. However, they believe that they could join with a better job if they received formal education. Hence, the question is; if after having education, no one is found to do these kinds of jobs, what will be the prospect of this sector? Surprisingly, 100% respondents with primary education are involved in the same jobs which are generally covered by the group having no formal education. These primary graduates also feel that they do not need most of the contents of primary education in performing the job. Observation also notices no difference of job performance between two types of graduates. It is interesting to know; does any special skills are required in doing such kinds of works or can a family apprenticeship process help to perform the task? In many cases, it has been found that individuals with no education have involved rigorously in family apprenticeship process than their primary graduates counterparts. This also helps them to perform the jobs better in the initial stage. The jobs mainly covered by the uneducated group and primary graduates require a num-

ber of skills which they learn after involving with the jobs so after a certain period of employment, no skill gap between the two groups exists. While child labor and under-age employment is the prevailing reality in Bangladesh, primary education does not usually provide any skills that are required for jobs. Primary education concentrates on providing some competencies that are required to continue secondary education, thus, the group, dropped out from primary level, almost achieve no skills which are necessary for their working life.

Group having no formal education perceives that they are unable to contribute for social development as the ways primary graduates do. In order to contribute for social development, communication skills are important so that they can access to information. If they were educated, they would play a role for democracy, governance, transparency, health and other issues. They also feel that if they were educated, their voice was considered as important and powerful thus chance to contribute in development would be more.

Respondents with primary education feel that they have more communicative skill than the group having no formal education. This helps them in a number of ways. An important fact is marked that within the current climate, they are to contribute significantly for the development of good governance and democracy and they are well aware of the problem. Furthermore, they are playing a diminutive role for the development of health and education sector as they are more aware than the group having no formal education.

It is explored in our study that the dropped-out section of population from primary education are not playing a role for economic development, however, they are contributing for social development. The section of population who completes primary education and receives secondary education will play the same role if secondary education also fails to provide necessary skills for the jobs, they are engaged.

Of the respondents with junior secondary education, almost 33% are involved in the jobs in which both the groups (having no formal education and primary graduates) are involved. This group also feels that their education is not adequately helping for their jobs.

Remaining 67% are involved in different kinds of jobs. Of this, 40% believe that they can use only 5% of education they received, 30% use 10% of education and the rest 30% are using 15% of education. Thus 33% of the graduates dropped out from the junior secondary school provision do not use any education for their jobs; other 67% use only 10% of their knowledge on an average. Junior secondary education helps the students to continue in further education. Data reveal that junior secondary graduates contribute more for social return than primary graduates as they are more communicative.

Of the respondents with secondary education, almost 28% are involved in the jobs that are covered by junior secondary graduates. The job performance between junior secondary graduates and secondary graduates are

almost same. 72% of the junior secondary graduates are involved in different kinds of jobs. Of this, 64% received general education, 16% received Madrasha education and the other 20% received VET. On an average, graduates with general education use 15% of their education in doing the job, while Madrasha and VET graduate use respectively 10 and 25% of their formal education. There is a very slight difference noticed in regards to the contribution of social development between junior secondary and secondary graduates. The group who continues higher education uses their secondary education to enroll into higher education.

Of the graduates with higher education, respectively 20, 30, 20, 20 and 10% studied arts, business studies, science, professional courses (engineering) and medicine. The graduates from arts discipline view that they just use their 50% of higher secondary education in doing the jobs for which they are employed, while no or very little usage of graduate or post-graduate education. Of the science graduates, only 30% have been employed in their respective fields, others are employed in various areas. The graduates who are employed in their respective fields use only 18% of their gained knowledge from their higher education. The science graduates who are working a field other than their disciplines only use 40% of their higher secondary education knowledge, while no or very little usage of graduate or post-graduate education. Of the graduates with professional degree, 60% are involved with respective professions; use 25% of their gained knowledge from higher education. The 40% of the professional graduates employed in different fields use nearly 30% of their higher secondary education in doing the job, while no or very little usage of graduate or post-graduate education. Of the medicine graduates, 70% are involved with their profession who use 40% of knowledge gained from the higher education, the remaining 30% who are involved other field use nearly 30% of their gained knowledge from higher secondary education, while no or very little usage of graduate or post-graduate education. It is striking to note that education up to higher secondary level is in best usage. Many of the graduates are using the job as training ground and a place for apprenticeship which helping them to learn the required skills. Therefore, workplace learning or education having higher linkage with industry should be put in place. No significant difference on the contribution of social development between graduates with higher secondary education and higher education was marked.

Overall, primary, junior secondary, secondary, higher secondary and tertiary graduates respectively use 14, 12, 16 and 11% of education that contribute towards the social development, while education provided by other providers contribute significantly more.

Contribution made by other provisions

The 21st century has shaped the world in different ways.

Not only technological changes but also changes in many aspects of social life have been taken places. Some scholars argue that education has provided us such a wonderful and meaningful 21st century. Indeed, this is true; however 21st century has created an atmosphere which is helping the expansion of education rapidly. Moreover, different types of medias and education providers apart from formal school system are playing the best substitute role of formal education system. Earlier, contribution of media and 21st century only benefited the higher educated group as they had a scope to access in those. These days, mass people are also the beneficiaries of the modernized 21st century. People in a rural village use many types of electronic devices (mobile phone, watch, radio and television etc.). This also helps them to learn many skills that are related to their job (economic development) and to social development. Survey reveals that primary graduates who are related with farming activities learn 26% skills from radio and television. Interview data reveal that media and other modern innovations of 21st century changed the life pattern of primary graduates noteworthy which is connected to the social development.

Data received from secondary graduates reveal that media and other innovations of 21st century are powerful tools in learning new skills that is connected to economic and social development. Data further reveal that education quality provided by the formal schools has deteriorated enormously (Ahmed et al., 2006; Chowdhury et al., 2003). Students are not significantly learning skills from the formal schooling that are required for their employment. Twenty-first century not only teaches them new skills that are required to gain economic benefit but also makes a significant changes on the behavior patterns which is important to cope with the changes recently made in the globe. Thus, this helps the graduates in contributing their economic and social development. With the scope of this research, it was not possible to determine the contribution made by other providers apart from formal school system, however, it should be noted that other providers are one of the best substitutes or even in some cases other providers play vital role where education system just work as substitute.

Overall, it was found that primary, secondary, higher secondary and tertiary graduates respectively use 17, 12, 9 and 7% of the skills gained from other providers (that is, religious institutes, training, workshops, radio, newspapers, 21st century, TV etc.) for economical benefit. On the other hand, they respectively use 18, 22, 28 and 26% of their knowledge gained from other providers that contributes towards social development.

However, interviews reveal that skills and knowledge gained through formal system make a foundation, thus, receiving skills and knowledge provided by other providers is boost up. One respondent observes that "Formal education provides fundamental knowledge such as reading, writing and communication skills and knowledge of

analytical analysis which are products of formal schooling system. This helps to achieve and use education received from other providers, thus, without the education of formal system, other education will be ineffective”.

Disparity in selecting the aims of education provided by the different providers

Both formal and informal educations (that is, newspapers, radio, TV, technology, 21st century etc.) are working towards the development of a nation. Both providers mainly help a country to achieve economic and social development. Education is a serious concern of public policy while media receive attention of public policy when their broadcast is related to government policy. These days, media enjoys a reasonably high freedom in issue of forecasting cultural programmes (that is, drama, cinema, talk-shows and borrowed programmes from Western) and the advertisement and promotional programmes.

Formal education system considers that bondage to our own culture and heritage will make our life more systematic. This will help us in achieving our social development in the light of science. In contrast, because of market approach, media is developed a western model that help to sell their programmes. Thus, a contrast in the context of cultural, traditional and heritage learning has been noticed between school and out-of-school provisions of education. These days influence of media is much stronger than ever before, thus, schools are struggling to put forward their arguments to the students. One respondent observes as follows,

“I don't want to argue which provisions (school, family or TV) are providing right education towards the culture. But I found a huge gap between different providers. This makes students' life problematic as they do not know which one should be considered.”

Not only students but also guardians are quite confused because of commodifications, the ideology and theme from media are widely-circulated. This makes a chaotic situation which makes our children argumentative. A nation having non-constructive and non-cohesive argumentative attitude will never come to a consensus at any issue, thus, not only social but also economic development would be halted.

The advertisement programmes of different medias have been widely criticized. Respondents urge that media survive by the advertisements. Within current climate of state policy, a little rule and regulation is available for advertisement. In order to earn money, media are broadcasting any types of advertisement provided by the 'buyer'. This teaches a number of things which is contrast to local culture and tradition. One respondent views that,

“Currently advertisement and some other programmes broadcasting by the medias teach some unethical issues. You can see a number of advertise-

ments teach the students how to be inattentive and irregular in attending schools and classes. Lying attitude is being also thought by the advertisements. Until and unless, the objectives of school and out-of-school provisions will be the same, it will take a long time to achieve desired level of development”.

Gap in the school system in contributing

Education of almost all the developed countries has been designed according to the need of present job market. Analysis of the trend of future job market is also considered. In order to progress economically, new sectors are developed in the context of globalization and business trend of 21st century. A manpower pattern is calculated. In the light of this calculation, different types and levels of education are provided to create a working force narrowing down the gap between supply and demand sides. After being dropped-out, students join with the work force, thus, we need to determine the drop out rate and who are in the dropped-out group and where are they joining as a workforce. Accordingly, education is needed to be provided designing decent curricula that includes necessary skills which is important for this particular dropped-out group in doing the job. It is also important to understand what kind and level of education is important for our work pattern. After determining it, country needs to emphasize to provide this education by ensuing required enrolment. Stopping drop out should be an agenda from a particular kind of education which is related to work. This is not currently practicing in Bangladeshi education system. Currently education system in Bangladesh mainly concentrates on providing foundation for higher education. Pursuing higher education is considered as a fashion and tradition for privileged group. Higher education in Bangladesh does not necessarily provide public benefit while it provides private benefit, therefore, not only privileged group but also others are more interested to go for higher education. Bangladesh needs to understand what kind of education is required for its present job pattern and the needs for future trends thereafter ensuring this kind of education according to the students' capability is needed to be paid attention. However, the balance of income between different kinds of graduates also needs to be considered otherwise no one will be enthusiastic to procure the specific kind of education advocated by the government.

Investment and return

Five Tables are presented in order to have a brief understanding of the investment made on education and its return. Before noting any remark from the data presented in the Tables, it is worthwhile to understand the relevancy of data, its collection process and the interpretation. Notes in this regards are followed underneath of each table.

Table 1. Unit cost subsidised by exchequer based on development and revenue.

Level	Unit cost from public subsidy	Total public unit cost	Unit cost subsidised publicly
Primary	US\$ 4 700	US\$ 4 700	Not Included
Secondary (General + science vocation)	US\$ 6 700	US\$ 11 400	Not Included
Higher secondary level (Traditional + polytechnic + others)	US\$ 4 800	US\$ 16 200	Not Included
Higher education (Bachelor and masters at different disciplines-general, engineering, medicine, profession-based etc)	US\$ 17 000	US\$ 33 200	Not Included

Source: Compiled from different government documents.

Table 2. Return from school and other provisions.

Graduates	School education			Other provisions of education			Average (Both)
	Economic (%)	Social (%)	Average (School)	Economic (%)	Social (%)	Average (Others)	
Primary	0	17.0	8.5	14.0	18.0	16.0	12.25
Secondary	6.35	12.0	9.18	12.0	22.0	17.0	13.09
Higher secondary	13.38	9.0	11.19	16.0	18.0	17.0	14.09
Tertiary	18.78	7.0	12.89	11.0	26.0	18.5	15.69
Average	9.63	11.25	10.44	13.25	23.5	18.37	14.4

Source: Analysis of data gathered from the respondents

Data presented in Table 1 have been compiled from different government documents which provide information on public revenue and development budget. Caution attempts were made in the process of compilation and calculation. The Table includes both development and revenue budgets invested to education. However, every cycle (that is, primary, secondary, higher secondary and tertiary) is required a specific period to complete, therefore, it is important to calculate the capital interest rate on investment at every cycle which was not done. Parents and other sponsors also invest a substantial amount of fund for the development of education which was not included. If these were included, investment towards formal provision of education would be higher. However, it is now evident that being a very under-developed country, formal provision of education receives the highest priority in allocating the fund in Bangladesh. But we should not compare with other countries, as investment in a sector always depends on the total economy of a country.

Data presented in the Tables 2 and 3 are quite similar. Two Tables are made in order to understand the comparison in different ways using same data. Table 2 focuses on comparison between formal and informal provisions, while Table 3 tries to understand the comparison between economic and social returns. Data used both the Tables are collected through survey. Interview data is also used to testify and nullify the data achieved through survey. Data used in this Table are proven to be valid as they are testified through random interviews.

Questionnaires, used to conduct this survey, exercise a number of indirect indicators to understand the use of education of workers in order to perform their jobs and regular tasks required to undertake the social life and human needs perspective.

Data used in Table 4 are the products of both primary and secondary sources. Census report is used to understand the unemployment rate of different types of graduates. Thereafter, amount of total unused education is determined. This unused education mainly impacts on economic return. However, if the trend remains, it will affect on social return in the long run, since Alam (2008a) explores that educated unemployment group bring social decadence and unrest. Table 4 shows that within the current climate, huge amount of education is totally unused in general. Total unused education is the highest at tertiary level where public subsidy to per unit cost is also the highest. Moreover, tertiary graduates practice a high level of corruption which is lowering the social return. In fact, return from tertiary level is low as a whole; however, the two reasons identified (higher unemployment rate amongst tertiary graduates and practice of huge corruption by tertiary graduates) force to have a negative return from the tertiary level (Table 5).

In the ladder of education, primary education is considered as a starting-edge while higher education is the ending-edge. It is factual that starting-edge of ladder is always required. The use of middle stages and final stage of the ladders always depends on situation/circumstance. While, if ending-stage of the ladder is used, starting and

Table 3. Comparison of Economic and social return.

Graduates	Economic return			Social return		
	School (%)	Other provision (%)	Average (%)	School (%)	Other provision (%)	Average
Primary	0	14.0	7.0	17.0	18.0	17.5
Secondary	6.35	12.0	9.17	12.0	22.0	17.0
Higher secondary	13.38	16.0	14.69	9.0	18.0	13.5
Tertiary	18.78	11.0	14.89	7.0	26.0	16.5
Average	9.63	13.25	11.44	11.25	23.5	17.37

Source: Analysis of data gathered through survey and interview

Table 4. Return after deduction of unemployment.

Graduates	Economic return			Social return	Average
	Total economic Return	Deduction for unemployed group	Return after the deduction		
Primary	7.0	0.3	6.7	17.5	12.1
Secondary	9.18	1.08	8.1	17.0	12.6
Higher Secondary	14.69	2.49	12.2	18.5	15.4
Tertiary	14.89	4.49	10.5	16.5	13.5
Average	11.44	2.04	9.4	13.34	13.37

Source: Analysis of data gathered from the respondents; Provisional census report 2001.

Table 5. Individual use of education of each stage of education ladder.

Grade	Contribution
Use of primary education	12.1
Use of secondary education	$12.6 - 21.1 = 0.5$
Use of higher secondary education	$15.4 - 12.6 = 2.8$
Use of tertiary education	$13.5 - 15.4 = -1.9$

Source: Analysis of data gathered from the respondents.

middle stages will be used automatically. We have identified five stages of education ladder in Bangladesh. Efforts were made to understand the specific use of each provision of education. Primary education is the starting-edge of the ladder, thus, it is used every time if education ladder is used. Considering this, it is realistic that usage of primary education should be the highest. Table 5 shows that the usage of primary education is 12.1% while tertiary provision scored -1.9% . The reasons of such negative score achieved by tertiary level have been discussed earlier.

Suggestions and Conclusions

Results show that there is a gap between education system and employment pattern. It is significant to consider that having been dropped-out from the schools, individuals join with the labor market. Currently, drop out

exists at all levels of education. Our primary and secondary education provisions mainly work to make their graduates competent for higher studies. With the current climate, they do not produce workforce that is important for our existing need. Moreover, a country does not necessarily needs its all individuals to be higher educated. For a country, a certain proportion of population with higher education are required who are extremely qualified to contribute mainly in the field of research and knowledge creation. Countries are essentially in need of more technically and professionally sound graduates who have job-oriented skills and knowledge. Education system in Bangladesh nourishes the pupil to learn some basic theories than to understand the applied use of those theories. Based on the above results, some suggestions are made aiming that implementation of these suggestions will provide more RoR.

i) Legislators need to calculate the number of employed

individuals in different sectors. It is also important to understand the probable job fields for primary and secondary graduates. Keeping these views, skills required for jobs should be taught.

ii) Need to identify how many higher educated and professional graduates are required in respect to different fields. Accordingly, a portion of students will be prepared for higher education based on their merits and interests. No economical and social privilege will be considered in selecting the students aiming to catering for certain purpose.

iii) Country shall not produce huge number of higher educated individuals than its need as it consumes higher unit cost.

iv) Country should explore the potential employment market within national and offshore and manpower will be developed with the view to the projection.

v) Rules should be restricted for the professionals to work in their receptive field explicitly.

vi) It is important to make aware the employers and individuals not to suffer in diploma disease rather they need to understand the concept of job, ready for the graduates.

vii) Increasing budget for in-service training, workplace learning and industry linkage with education is required. Undertaking in-service training should be obligatory for the officials and workers. Saving budget from non-required higher education should be invested on VET programme. Training levy and public-private partnership in training can also be considered.

In conclusion, in the Third World, any research carried out invariably results in a long list of recommendations.

Policy-makers consistently fail to follow any of the suggestions made or, at best, partially implement those. A comprehensive solution continues to be elusive whilst the prevailing culture of corruption and political influence prevents the effective implementation of policies. Suggestions emerging as results of this research follow, however, we wish to emphasize that straightforward and direct implementation of these suggestions may not fully address all the existing problems. However, we firmly advocate that, if a transparent and open policy structure is developed and political interference is minimized, the suggestions could go a long way towards solving at least some of the problems facing the education sector in Bangladesh, particularly related with the return of investment in education.

It is also important to carry out an extensive research in the field of RoR in education of Bangladesh and also important to conduct some study focusing some aspects to have an in-depth knowledge.

REFERENCES

Ahmed M, Nath SR, Hossain, Kalam AK (2006). The state of secondary education: progress and challenges (Education Watch 2005). Dhaka: CAMPE.

- Alam G M, Khalifa M T B (2009). The impact of introducing a business marketing approach to education: a study on private HE in Bangladesh. *Afr. J. Bus. Manage.* 3 (9): 463-474
- Alam GM (2008a). The Role of Technical and Vocational Education in National Development of Bangladesh. *Asia Pacific J. Coopera Educ.* 9(1): 25-44.
- Alam GM (2008b). Quality Assurance at the affiliated institutions of higher education of the National University of Bangladesh. Conference Proceedings. International Association for the Scientific Knowledge. Portugal, May 26-28.
- Altbach P (1999). Private Higher Education: Themes and Variation in Comparative Perspective. *Prospects* 29 (3): 311-323.
- Appleton S (2000). Education and Health at the Household Level in sub-Saharan Africa. Working Paper 33, Centre for International Development, Harvard University.
- Bennell P (1996). General versus Vocational Education in developing countries: A Review of Rates of Return Evidence. Frank Cross: London.
- Card D (2001). Estimating the Return to Schooling: Progress on Some Persistent Econometric Problems. *Econometrica* 69 (5): 1127-1160.
- Colin NP (1999). Technical and Vocational education for the Twenty First Century. *Prospect*. 29(1), 29-36.
- Fagerlind I, Saha J (1989). Education & National Development. Pergamon Press: New York.
- Harmon C, Walker I (1999). The marginal and average returns to schooling in the UK. *Eur. Econ. Rev.* 43: 879-887.
- Hartog J, Odink J, Smith J (1999). Private return to education in the Netherlands in Asplund, R. and Pereira, P.T. (Eds.) Returns to Human Capital in Europe. ETLA, The Research Institution of Finnish Economy: Helsinki.
- Lewin KM (1993). Education and development, The Issues and the Evidence Research for the Development for International Development No6, DFID: London.
- Murphy K, Welch F (1992). The Structure of Wages. *Q. J. Econ.* 107: 285-326.
- Pritchett L (1996). Where has all the education gone? The World Bank: Washington, DC.
- Shahjamal MM, Nath SR (2008). Evaluation of the pre-primary education programme of Bangladesh (An unpublished research report). BRAC: Dhaka.
- Psacharopoulos G, Patrinos AH (2002). Returns to investment in Education: A further update. Policy research working paper, 2881, Latin America and the Caribbean Region, Education Sector Unit, The World Bank.
- Rouse CE (1999). Further Estimates of the economic return of schooling from a New Sample of Twins. *Econ. Educ. Rev.* 18(2): 149-157.
- World Bank (2002). Bangladesh 2020, A Long Run Perspective Study. doi: <http://lnweb18.worldbank.org/lo+web+sites/bangladesh+web.nsf/Bangladesh?> Cited on 2nd March.