Bangladesh came into being as an independent sovereign state on December 16, 1971. Prior to liberation, some simple processing industries, like jute, textiles and sugar mills, two pulp and paper mills, a small urea fertilizer plant, a cement factory, a mini steel making plant with imbalances downstream rolling facilities for making plant mild steel bars, sheets and plates, a few pharmaceutical units with capacities for formulation, bottling and packaging and several minor dockyards and light engineering workshops, comprised the industrial base of the country. The liberation war had an alarming influence on the working of the economy and administration. The government of Bangladesh therefore nationalized the key industries e.g. Jute, textile, sugar, insurance and banking after liberation. Moreover, the country also took over the abandoned units, which created a vast public enterprise sector in the economy. The First Five Year Plan (1973-78) of the country adopted an inputs substitution strategy for industrialization with emphasis on domestic production of basic needs and investment goods. The First Industrial Investment Policy (Announced in January 1973) assigned a major role to the public sector and hence restricted the role of the private sector in the industrial development of the country.

However, after only 18 months the new government policy showed a paradigm shift in favour of the private sector through declaration of the New Industrial Policy of July 1974. In this policy, the investment ceiling was raised from Tk 2.5 million to Tk. 3.5 million, tax holidays for less
developed areas were extended from 5 to 7 years and the foreign investors were allowed collaboration with the government and local private entrepreneurs except in some selected industries. With the unexpected change of the government in August 15, 1975, the revised investment policy was announced in December 1975, which encouraged private investment through increasing incentives including remittance. During 1978-2002, a Two Year Plan (1978-80), Second Five Year Plan (1980-85), Third Five Year Plan (1985-90), Fourth Five Year Plan (1990-95), a Two Year Plan (1995-97) and Fifth Five Year Plan (1997-2002) were launched and were implemented successfully. All these plans encouraged the private sector development. As a consequence, the total investment in private sector registered an accelerating growth, whereas on the other hand, the public sector textile units registered declining trend in the total investment during 1990-91 to 1999-2000.

The private sector, as a matter of fact, is generating more investment fund than public sector. The reason behind this can mainly be attributed to dismal profit performance of public sector enterprises leading to external pressure from the IMF and the World Bank for increased role of private sector in the economy. As a result of this, the private investment was encouraged. Textile being the principal industry of the country attracted huge private investment. Private textile industry in Bangladesh has all the processing units such as weaving, spinning, readymade garments, sericulture, knitting unlike the public sector, which mainly performs activities viz. weaving and spinning. Against this backdrop the present study is undertaken to make comparative study of the productivity performance of Private sector textile units with the public sector textile industry during 1990-2000.
The study is based on samples textile mills for the purpose of productivity performance measurement. The mills have been selected only from spinning and weaving sub-sectors because public sector textile mills work under only spinning and weaving sub-sectors.

The main objectives of the study are:

- to study the socio-economic background leading to the growth and development of public sector textile mills and policy reversal leading to the growth and development of private sector textile industry.
- to measure and to analyze the productivity performance in the public and private sector textile industry for the study period i.e. from 1990-91 to 1999-2000.
- to identify and to evaluate productivity performance of sample public and private sector textile units.
- to identify the factors affecting productivity of textile units of Bangladesh.
- to make comparative study of the productivity performance of public and private sector textile units.
- to suggest and recommend measures to increase productivity in the public as well as private sector textile industries in Bangladesh in the light of the productivity performance.

In order to substantiate the objectives, following hypotheses have been tested:

- that there is variation in industry average between public and private sector textile units in respect of fixed assets productivity in terms of sales, returns on capital employed and inventory turnover during the study period.
- that there is variation between selected public and private sector textile units in respect of assets productivity during the study period.
- that there is variation between selected public and private sector textile units as regards value added productivity during the study period.
- that there is positive correlation of total productivity with labour productivity in terms of number of employees, fixed assets productivity in terms of value of production, value added productivity in terms of value of production in the case of public and private sector textile units during the period under reference.
that there is variation in return on capital employed among the selected textile units in the case of public and private sector textile units during the period under reference.

The findings of the study have revealed that the average labor productivity in terms of manpower cost was 4 times higher in private sector selected textile units i.e., Tk.9.83 lakh than public sector textile units i.e., Tk.2.20 lakh during the study period. This ratio has been found to be varying from the highest of Tk.10.60 lakh in both 1994-95 and 1995-96 to the lowest of Tk.7.95 lakh in 1999-2000 in the case of private sector textile mills. On the other hand, in the case of public sector selected textile mills, this ratio has fluctuated from the highest of Tk.4.27 lakh in 1990-91 to the lowest of Tk.0.64 lakh in 1998-99. The study has witnessed significant variation in labor productivity in terms of man power cost between the two sector’s textile units at 5 per cent level of significance since the calculated value of F was higher than the critical value of F i.e., 236.42 > 4.41 during the study period.

The labour productivity in terms of number of employees showed a bright picture throughout the period for private sector. The purported ratio of private sector varied from a lowest of Tk.1.96 lakh in 1990-91 to the highest of Tk.3.06 lakh in 1995-96, however, in case of the public sector, it fluctuated from a minimum of Tk.0.037 lakh in 1997-98 to a maximum of Tk.1.35 lakh in 1991-92. The year wise average of the ratio of private sector accounted for Tk.2.56 lakh as compared to Tk.0.84 lakh in case of public sector during the referred span. The foregoing analysis proves that private sector textile units are in better position. Statistically, significant difference was witnessed since calculated F-value was higher than that of table i.e. 114.40>4.41 at 5 per cent level of significance during the study period.
The ratio of fixed assets productivity in terms of value of production of private sector varied from a minimum of Tk.0.84 lakh in 1999-2000 to a maximum of Tk.1.54 lakh in 1995-96 with mean of Tk.1.15 lakh. While average of public sector was 1.64. It registered variance from a minimum of Tk.0.46 lakh in 1998-99 to a maximum of Tk.2.38 lakh in 1991-92. In case of public sector the ratio has recorded wide variation as compared to the private sector. Although the average value of private sector was higher than public sector yet the statistical calculation revealed that there was no significant difference regarding the ratio between public and private sector since the calculated value of F was smaller than that of table value i.e., 2.75<4.41 at 5 per cent level of significance during the period under review.

The average of the ratio i.e., fixed assets productivity in terms of net sales was smaller in private sector i.e., Tk.1.17 lakh and for public sector it was Tk.1.75 lakh. The highest and the lowest ratios were Tk.0.92 lakh and Tk.1.52 lakh respectively for the private sector. While for the public sector, it varied from the lowest of Tk.0.62 lakh in 1998-99 to the highest of Tk.2.96 lakh in 1995-96. Although the average figure was higher in public sector but statistically there was no significant difference between the two sectors at 5 per cent level of significance as the calculated F-value was lower than that of the table value i.e., 3.97<4.41.

The ratio of current assets productivity in terms of value of production for private sector varied from a minimum of Tk.0.39 lakh in 1997-98 to maximum of Tk.0.55 lakh in 1993-94 with mean of Tk.0.49 lakh (Table 6.3.5). On the other hand, the ratios were found to be fluctuating from a minimum of Tk.0.64 lakh in 1997-98 to a maximum of Tk.2.08 lakh in 1990-91 with mean value of Tk.1.30 lakh in case of the public sector. The average value was higher in public sector and statistically there was
significant variation in the ratio between the two sectors since the calculated value of F was greater than the table value i.e., 19.76 > 4.41 at 5 per cent level of significance during the study period. Thus, it can be concluded that current assets productivity in terms of value of production was in satisfactory position as compared to the public sector textile units during the study period i.e., 1990-2000.

The average of current assets productivity in terms of sales of public sector was Tk.1.36 lakh and for private sector it was Tk.2.15 lakh during the period under reference. The ratio varied from the lowest of Tk. 0.72 lakh in 1996-97 to the highest of Tk. 2.18 lakh in 1990-91 for the public sector selected textile units. While it fluctuated from the lowest of Tk.1.93 lakh in 1991-92 to the highest of Tk.2.68 lakh in 1998-99 in the case of private sector selected textile units during the period under study. ANOVA showed that there was significant variation in the current ratio between the two sectors as the calculated value of F was higher than the table value of F i.e., 18.03 > 4.41 at 5 per cent level of significance.

The average of the ratio i.e., working capital productivity of private sector stood at Tk.2.23 lakh while it was only Tk.0.87 lakh for the public sector during the study period. The ratios of private sector were higher than those of the public sector during the ten-year period of the study. Working capital productivity of private sector was much better than that of public sector. Statistically there was significant difference at 5 per cent level of significance. The table value of F was higher than the calculated value i.e., 69.48 > 4.41 during the study period.

The average ratio of value added productivity in terms of manpower cost was 4.11 in case of private sector while it was Tk.1.07 lakh in case of public sector. The ratios of private sector were greater than those of public sector in each year. The ratio varied from a minimum of Tk.3.55
lakh in 1996-97 to a maximum of Tk.5.21 lakh in 1991-92 while it varied from a minimum of Tk.0.22 lakh in 1996-97 to a maximum of Tk.2.15 lakh in 1990-91 for public sector. The lowest ratio of private sector was higher than the highest ratio of public sector i.e., 3.55 > 2.15 during the study period. Statistically there was significant variance of the ratio between the two sectors at 5 per cent level of significance and the calculated value of F was higher than the table value i.e., 148.73 > 4.41. Value added productivity in terms of manpower cost was better in private sector than the public sector textile units during the period under reference.

Private sector textile mills ratio of value added productivity in terms fixed assets varied from a minimum of Tk.0.42 lakh in 1998-99 to a maximum of Tk.0.70 lakh in 1994-95 with an average of Tk.0.53 lakh. But for the public sector the minimum of Tk.0.62 lakh was shown in 1998-99 and the maximum of Tk.1.31 lakh in 1993-94 with an average of Tk.0.85 lakh during the study period. Statistically there was significant variance of the ratio between private sector and public sector since the calculated value of F was higher than table value i.e., 10.24 > 4.41 at 5 per cent level of significance. It indicated that the value added productivity of the public sector textile units was almost the same during the study period.

Average ratio of value added productivity in terms of current assets for private sector during the period of study showed better performance than that of the public sector. While the average of the ratios of private sector and public sector were Tk.0.94 lakh and Tk.0.71 lakh respectively during the study period. Statistically at 5 per cent significance level there was no significant variance since the calculated value of F was smaller than the table value i.e., 4.28 < 4.41. Value added productivity in terms of current assets, therefore, was same in both private and public sector during the study period.
Value added productivity in terms of value of production of private sector selected textile units has registered from a minimum of Tk.0.36 lakh in year 1997-98 to a maximum of Tk.0.52 lakh in year 1990-91 with an average of Tk.0.44 lakh. Whereas, it varied from a minimum of Tk.0.21 lakh in 1991-92 to a maximum of Tk.2.48 lakh in 1997-98 with an average of Tk.0.80 lakh in the case of public sector selected textile units. On the basis of average value the performance of public sector was better during the study period. But statistically there was no significant variation at 5 per cent level of significance as the calculated value of F was smaller than the table value i.e., 2.45< 4.41 during the study period.

Value added productivity in terms of material cost varied from a minimum of Tk.0.58 lakh in 1997-98 to a maximum Tk. 1.11 lakh in 1990-91 in case of private sector. While it varied from a maximum of Tk.1.38 in 1993-94 to a minimum of zero from 1997-98 to 1991-2000. There was no significant variance in the ratio between the two sectors since the table value of F was lower than calculated value of F i.e., 3.33< 4.41 at 5 per cent level of significance.

The average of total cost productivity for both private and public sectors was Tk.1.18 lakh and Tk.0.79 lakh respectively (Table 6.3.13). In case of private sector the ratio varied from the lowest of Tk.0.89 lakh in 1999-2000 to the highest of Tk.1.24 lakh in 1990-91 while, for public sector it varied from a minimum of Tk.0.34 lakh in 1997-98 to a maximum of Tk.1.72 lakh in 1991-92. Single factor ANOVA indicated that there was significant variance in total productivity performance between the two sector textile mills. Here, the calculated value of F was found greater than the table value i.e., 8.26> 4.41 at .05 level of significance during the study period.
The average figure of profit productivity of private and public sectors were 0.00 and -0.40 respectively. Out of ten years period private sector had positive figure in six years and public sector had only one year (i.e. 1991-92). Statistically there was significant variation between the two sectors since the calculated value of F was higher than that of the table value i.e. 12.31 > 4.41 at 5 per cent level of significance during the study period.

The average return on fixed assets was negative in public sector selected textile units (Tk.-0.82 lakh) and it was positive in private sector selected textile units (Tk.0.01 lakh) during the period under review. All the selected ratios were negative in public sector, of which the highest was Tk.- 1.59 lakh in 1996-97 and the lowest of Tk.-0.04 lakh in 1991-92. While it varied from the highest of Tk.0.07 lakh in both 1990-91 and 1991-92 to the lowest of Tk.-0.09 lakh in 1997-98 in the case of private sector selected textile units. There was significant variation in the ratio between the two sectors at 5 per cent level of significance during the study period the calculated value of F being higher than the table value i.e., 21.04> 4.41.

The return on capital employed in the case of private sector fluctuated over the period in the range of Tk. -0.05 lakh to Tk.0.05 lakh with an average of Tk.0.01 lakh. For the public sector selected textile units the average return on capital employed was Tk.-0.30 lakh whereas it varied from a maximum of Tk 0.02 lakh in 1991-92 to a minimum of Tk.- 0.62 lakh in 1993-94. The return on capital employed of private sector was better than the public sector selected textile units during the period under reference. ANOVA displayed that at 5 per cent level of significance the calculated value of F was higher than that of table value i.e., 21.04>4.41. It concluded that there was significant variation in return on capital employed between two sectors selected textile units during the study period. Average value of return on equity capital of private sector was
Tk.- 0.03 lakh and for public sectors Tk- 0.45 lakh. Although the average value was negative in both the sectors but there was significant difference in the ratio between the two-sectors. The performance of equity capital was better in private sector than the public sector selected units.

Current ratios of public sector were higher from 1990-91 to 1996-97 than the private sector. The average of the ratio was 1.37 times in selected private sector and it was 2.43 times in case of public sector. ANOVA showed that there was no significant variation in current ratio between the two sectors as the calculated value of F was lower than the table value i.e., 2.69<4.41 at 5 per cent level of significance.

The average of quick ratio was 1.29 times and the lowest of 0.19 times in 1997-98 with the highest of 5.33 times in 1994-95 for public sector selected textile units of Bangladesh during the study period. The ratio varied from the minimum of 0.12 times in 1994-95 to the maximum of 0.31 times in 1995-96 in case of private sector. Statistically there was no difference in the ratio between the two sectors selected textile units as ANOVA indicated that the calculated value of F was lower than the critical value of F i.e. 22.8< 4.41 at 5 per cent level of significance during the study period.

The average inventory turnover ratio was higher in Public Sector selected textile units i.e., 5.24 times and in the Private Sector it was 3.14 times. This ratio fluctuated from the lowest of 2.07 times in 1992-93 to the highest of 10.01 times in 1998-99 in the case of Public Sector. While it varied from the lowest of 2.24 times in 1990-91 to the highest of 3.85 times in 1999-2000 in the case of Private Sector selected textile units during the period under reference. Variance analysis displayed that there was no significant variation of the ratio between the two sectors since the calculated value of
F was lower than the critical value of F i.e., $3.83 < 4.41$ at 0.05 level of significance during the study period.

The average of the total productivity was higher in private sector than that of public sector i.e. $1.29 > 0.84$ during the study period. Year wise all the ratios of private sector were higher than that of public sector during the study period. The ratios varied from a maximum of Tk.1.43 lakh in 1994-95 to a minimum of Tk.1.01 lakh in 1999-2000 in case of private sector and for public sector the ratio varied from a maximum of Tk. 1.25 lakh in 1990-91 to a minimum of Tk. 0.50 lakh in 1996-97. Statistically it may be inferred that the performance of total productivity ratio witnessed significant variation between private sector and public sector. ANOVA indicates the calculated value of F was higher than the table value i.e. $21.46 > 4.41$ at 5 per cent level of significance during the study period. The total productivity position of private sector has been found better than that of the public sector during the study period.

The study has concluded that the private sector textile units have performed better than the public sector on all counts with regard to productivity performance during the span of almost a decade i.e., from 1990 to 2000. The main reasons for better productivity performance by the private sector textile units were, commitment of employer and workers for increasing productivity and profitability, financial, non-financial and motivational factors, good marketing strategy, good quality of textile products, better maintenance and use of modern technology.

The findings of the study further indicates that productivity performance of public sector textile units (both overall and samples) was not only low but also on average, exponential growth rate showing a declining trend. On the other hand, the private sector units had shown an increasing trend on average and on the basis of exponential growth rate. The testing
of hypotheses were accepted that there was significant difference of productivity performance between public and private sector textile units of Bangladesh at 5% level of significance during the period under reference.

Problems for declining productivity performance of textile units of Bangladesh are explained briefly as under:

The Fifth Five Year Plan (1997-2002) has estimated that the total demand-supply gap of fabric will increase from 2633 million meters in 1996-97 to 3917 million meters in the year 2001-2002 and the demand-supply gap of yarn, raw cotton and handmade fibers were 2533 million meters, 398 million kg and 182 million kg respectively in the year 1996-97. On the other hand, the projected demand supply in the year 2001-2002 will be 3947 million meters, 639 million kg and 254 million kg respectively. The fifth five-year plan also estimates requirement of establishing 213 spinning mills, 230 weaving mills and 249 dyeing & finishing mills by the year 2002, to bridge the demand gap in the textile sector. The huge capital required, for establishing such numbers of spinning, weaving and dyeing & finishing, to meet those gaps, is not feasible to be financed by the local banks and investors alone. The Government of Bangladesh provides highly liberal incentives for encouraging both domestic and foreign private investment, although foreign investment has not yet picked up as much as expected.

Power failure is the other vital important problems faced by the textile sector. Under utilization of capacity is the main problem for textile units due to power failure, as a result, they have not been able to make profit. At present all most all the textile units has been using back dated technology, especially in public sector. The government is not interested to replace the new technology on account of, lack of capital, absenteeism,
interference of trade union etc. Poor quality of products is the common phenomenon which is mainly due to inferior input quality and age-old technology, circularity of low capacity utilization leading to severe liquidity crisis, low labour morale due to deterioration, production environment, inflexibility of government procedure leading to delay in procurement of raw materials. In the year 1996-97, raw cotton and man-made fibers demand-supply gaps were 369 million kg. and 169 million kg. respectively. The projected raw cotton and man-made fibers demand supply gaps in year 2001-2002 will be increased to 555 million kg and 254 million kg respectively. To meet those demand-supply gaps it is essential to establish new industry and also ensure utilization of full capacity of the existing textile units. But on account of shortage of capital and absence of infrastructure facilities the textile industries were not established and due to that full capacity were not utilized. Another problems of textile industry is shortage of spare parts, in the country. Most of the spare parts are imported. Due to the shortage of spare parts of machinery, full capacity of the machinery of textile units could not be properly utilized.

The textile industry had to face more unjustified and unethical competition with foreign products. The textile products come from across the borders at much cheaper than local products or imported products. These types of problems have been faced not only by the private sectors but also by the public sector textile units. Trade unionism is the most important problem for the textile industry mainly in public sector. The management of the textile industry totally failed to control the trade union malpractices. Moreover a few textile units were lockout for unlawful and unauthorized demand of the trade unions. The public sector textile units of Bangladesh have faced the problems of excess manpower. For this reason the labour productivity has declined. The
public sector textile unit’s conversion cost of yarn in respect of labour was more than the private sector. The main reason was excess manpower. Labour-management relation factor affect productivity. If is well accepted that good relation with labour increase productivity and poor relation, on the other hand, decrease productivity. Marketing strategy is one of the most important factors affecting productivity. Now-a-days market is competitive. In this context private sector textile mills have used advertising, sales discount, contract to customer, and other promotional activities for marketing strategy. As a result private sector textile units have increased their sales volume, production etc. that consequently has increased productivity. Private sector textile units have assured their quality of textile products because market is so competitive. On the other hand, public sector textile units have no quality control system of their own. As a result, private sector textile units made profit through quality assurance of textile products and were able to increase their productivity.

In Bangladesh, the Government was not stable for the last 25 years. Frequent change in the Government affected textile policy, which ultimately affected productivity performance. Other economic conditions i.e. availability of finance and business climate such as, availability of power, water, transport, communication and raw materials working in favour of textile production, productivity will increase otherwise productivity will be hampered. But in our country non-availability of these economic conditions and absence of business conditions affected the rate of productivity to a large extent.

The public sector textile units have more labour unrest than private sector, due to strong trade Union. Trade union always interferes and creates hurdle in the management and production of the public sector
textile units. As a result, productivity performance of private sector textile units was better than the public sector textile units. Capital is an important element for a manufacturing industry. Banks and other financial institutions provide capital with interest. If interest rate is high then cost of production will be increased and that will have a negative impact on productivity.

At last, textile products enter illegally from other countries affect our local textile products, which ultimately is an alarming factor affecting productivity.

The important suggestions and recommendations of the study are as follows:

It has been found from the foregoing analysis that there was no systematic effort on the part of the government as well as the private sector textile industry to set productivity target to ensure better productivity environment. In such a context, the productivity management structure needs to be set up with different sub-systems consisting of the productivity effective implementation scheme and monitoring effective evaluation. It should be evaluated with reference to target and past performance and remedial measures should be taken based on the result of evaluation.

There is an urgent need for reduction of manpower in the public sector textile units to make them profitable and to fairly improve productivity. The study suggests reduction in surplus manpower through Golden Handshake, creating opportunity for them to become entrepreneurs.

Government needs to give keen attention to ensure availability of power supply for public and private sector textile units of Bangladesh.

The idle capacity existing in both public and private sector textile units needs to be utilized effectively to ensure better productivity.

There is a need for improvement of quality work environment, which, as a result, increases productivity.

Labour unrest is more and frequent in Bangladesh. The study attributed this to political and economic reasons. Macro and micro management is needed to give due attention to overcome or minimize this problem.
Textile units of Bangladesh have faced a lot of problems in increasing their sales volume because of illegal border trade. The Government of Bangladesh needs to give proper attention to solve this problem. Increased sales volume of textile products will increase and improve the productivity of textile units.

The government of Bangladesh should take part in productivity improvement policies and plans for textile units. These policies and plans must be stable in the case of change of government also.

The government needs to step forward proper attention to make it profitable re-structuring programs.

Awareness needs to be created in the minds of management and labour in respect of productivity improvement of public and private sector textile units of Bangladesh. The public sector textile units have been using obsolete machineries. It is essential to replace the modern technology and modern machinery’s phase by phase.

Capital is a most important input for productivity improvement of textile units. Commercial Banks and financial institutions can provide loan for textile units of Bangladesh for the purpose.

The findings of the study revealed that real boost up in productivity can take place in textile units of Bangladesh only when all the variables are jointly taken care of.

This study has mainly concentrated on productivity performance of spinning and weaving textile units for the purpose of comparative study of public and private sector textile units in Bangladesh. It has not considered the other sub-sectors of the textile units, like readymade garments, sericulture and knitting. A project is needed to be undertaken separately to research on productivity performance of these sub-sectors of textile units of Bangladesh. The Research Scholar has also candidly carved out the direction for researches in the spheres of Industrial Relations and the Productivity Performance, Job Involvement, Job Satisfaction and Motivation of the employees of the textile units.