This document contains five case studies of management and finance situations in Bangladesh, which are intended to foster classroom discussion and thereby advance management development in that country. One to four discussion questions follow each case study. The titles and authors of the case studies on management are: "Azir Ahmed & Co., Business Start-Up" (Golam Mostafa Khan); "X Fisheries, Ltd. Employee Motivation" (Abu Taher Mollik, Sajal Kumar Mukharjee); "University of Dhaka Employment Dilemma, Career Development" (Muhammad Mohiuddin); and "Dhaka University Transportation Department, Accountability and Decision Making" (Abu A. Baguer). The case study on finance is titled "MH Hills, Ltd., Project Viability" (Nazma Hussain). (CML)
CASE STUDIES FOR
MANAGEMENT DEVELOPMENT IN BANGLADESH
FOURTH BOOK

Prepared for the
World Bank/Bangladesh Management Education and Training Project

by

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INTRODUCTION

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The case studies contained in this publication were developed under the direction of the author while in Bangladesh during December, 1988, on a Case Writing assignment with the World Bank/Bangladesh Management Education and Training Project. This is the fourth publication of this nature developed by the author for this project. (See: Gary N. McLean, Case studies for management development in Bangladesh, World Bank/Bangladesh Management Education and Training Project, 1985; Gary N. McLean, Case studies for management development in Bangladesh, second book, World Bank/Bangladesh Management Education and Training Project, 1986; and Gary N. McLean, Case studies for management development in Bangladesh, third book, World Bank/Bangladesh Management Education and Training Project, 1988.)

As in the earlier publications, the author worked with the Faculties of Commerce at the Universities of Chittagong, Dhaka, and Rajshahi, and the Institute of Business Administration (for the first time, the faculty from the Bangladesh Management Development Centre were not involved), to assist them in developing case studies, primarily to support Executive Development Programs (an ongoing secondary objective for the author in working with the faculty members included development of Executive Development Programs). Increasingly, however, the faculty began to recognize the value of using case studies in their B. Comm., M. Comm., and MBA programs. Without exception, executives were very willing to work with faculty in the process of developing case studies. Likewise, faculty who had not developed a case study before found that a brief case study to be used for instructional purposes can be developed very quickly. I was impressed with how quickly and how well these cases were developed.

My role in the development of the cases was to review the case study proposals, including questions to be asked during the interviews; to assist in the gathering of information from the interviews and secondary data; and to review, edit and rewrite drafts of the studies. Few such cases were developed during this trip as my primary effort was focused on more extensive cases that had been developed throughout the project.

This is the last such publication to result from the project, as the project is scheduled to conclude by June, 1989. However, more extensive cases will be published by the University Grants Commission, Dhaka, in three books edited by Gary N. McLean and Musaffer Ahmed: Bangladesh Business Cases in Management, Bangladesh Business Cases in Marketing, and Bangladesh Business Cases in Accounting and Finance. Interested readers may wish to consult these publications as they become available.

Readers may wish to make reference to the 1985 publication for sections on "How to Write a Case Study" (p. 20); "How to Teach Using Case Studies" (pp. 21-24); and "How to Solve Case Studies--Student Notes" (pp. 25-26).
For those outside of Bangladesh who may wish to use this publication, some explanation regarding the currency terminology may be in order:

100 Paisa = Taka 1.

At the time of writing,

32.85 Taka = $1 (U.S.) or
Taka 1 = approximately 3 cents (U.S.)

Counting units may also be confusing:

One lakh (or lac) = 100,000
One crore = 10,000,000

Most of the users of these cases continue not to have had previous experience in using the case study method. Questions for discussion have thus been appended to each case. When used with experienced persons, or if used for some other objective, these questions should probably not be reproduced.

I wish to express my appreciation to those executives who gave so generously of their time and knowledge for the sake of advancing management development in their country; and to the faculty for their partnership in developing the cases. My hope is that these cases might continue to be useful in supporting management development wherever it is taking place in Bangladesh. My involvement in the project has been personally growth-producing, and many special relationships have been developed. I am grateful for this opportunity in my life.
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Azir Ahmed & Co. is a privately owned small fishing firm operating at Cox’s Bazar in Chittagong. Cox’s Bazar is known as both a holiday resort and a sea fishing centre in Bangladesh. The venture was originally launched with one trawler in the early 1980s by Reaz Khan, 35, the only son of his parents.

Azir Ahmed, Reaz’s father, was in service and later moved into a business which was not related to fishing. He wanted their only son to be a lawyer. But after his higher secondary examination, Reaz went to Chittagong University where he was admitted to the undergraduate Public Administration Programme. This was in the early 1970s, the early days of independent Bangladesh, and Reaz got involved in student politics at the University. He was an active and intelligent student, and people were surprised when they discovered that Reaz had left the University without completing his undergraduate studies. His parents were very worried about the future of their son. Azir Ahmed decided to send Reaz abroad for higher studies and offered him some money.

Reaz received a substantial amount from his father and went to Dhaka to explore the possibilities of going abroad. There he met with Zahir, one of his old school friends, who was a management student at Dhaka University. After Reaz had discussed the situation with Zahir, Zahir advised him not to spend lavishly all the money he had received from his father. In addition, in order to prevent Reaz from wasting the money, Zahir suggested that Zahir keep some of his money with him so that Reaz could use it when needed. Reaz listened to his friend and left about Tk.40,000 at Zahir’s disposal. Moreover, Zahir also kept suggesting to him that Reaz could start a business with his money.

After several weeks Reaz returned to Cox’s Bazar. He was doing nothing except roaming around. He knew a few of the local fishing firms who were doing very well. Of course, there were firms which were not doing very well. Common risks, such as cyclones, robbery of fish and fishing nets, etc., are also involved in fishing. Despite these facts, Reaz started thinking of starting a fishing firm.

Reaz expressed this to his mother, and, ultimately, when his father heard about their son’s desire to become a fisherman, he was extremely disappointed and angry as well. "He could have done any business except fishing! Nobody in our family has ever done a fishing business! It is surely going to affect our family reputation!" Azir Ahmed kept saying all these things and was very reluctant to accept Reaz’s intended venture.

This did not discourage Reaz. He established contact with a local motor launch and trawler builder, and in fact placed an order for one trawler. The money he received from his father (including the Tk.40,000 saved by his friend) was enough to buy an engine and the fishing nets for the trawler.
Although Reaz was doing all these things secretly, his father ultimately learned that he was procuring a trawler. He was still not prepared to accept this venture. Conversations between the son and father, at this stage, were almost non-existent.

One day the trawler was delivered, and sailors were hired. When fishermen go to sea, a voyage usually takes about a week. The trawler was ready for the first voyage, and Reaz was prepared to go, too. When Azir Ahmed heard about this, he rushed to the dock and told Reaz not to go to sea with the sailors. Reaz listened to his father and did not go. The sailors were back in about a week with a catch which was sold for Tk.27,000. Reaz gave this money to his mother and told her to give it to his father who would buy and distribute sweets in the hope that the venture would be blessed by God. But Azir Ahmed did not accept the money the first time. Reaz did the same thing with the second and third voyages' sales proceeds, i.e., Tk.26,000 and Tk.29,000, respectively. Azir Ahmed at last accepted that money with reluctance and distributed sweets.

The initial voyages of the trawler proved to be profitable. This induced Reaz to think about procuring another fishing trawler, but this time the money was not readily available. Moreover, he was not prepared to approach his father for the money needed. Fortunately, one of his friends had contact with a nationalised bank, and he applied to the bank for a loan with his friend's reference. Since he was already in the same business and was doing rather well, the bank agreed to finance him. Reaz, however, was faced with a problem when the bank demanded collateral against the loan. The bank was prepared to accept land property as collateral, but Reaz did not have any land in his own name. As usual, he discussed the problem with his mother instead of talking with his father directly. He told his mother that, unless his father gave him the land as collateral, he would leave Cox's Bazar and go away. His mother tried to make her husband realise the situation and requested him to help Reaz out. In the end, Reaz got the land from his father and was able to procure his second trawler.

Azir Ahmed gradually became sympathetic with his son. He seemed to have accepted his business as a venture. Now, when Reaz goes away from Cox's Bazar for a short period, his father looks after the business. Son and father have now joined together in their business.

From the profits of their fishing firm, Reaz saved a good sum, and he wanted to invest that money. There was a petrol pump for sale at Cox's Bazar, and one day Reaz went to talk to them. Reaz believed that it would be a good investment and he bought it. Although operating in diverse industries, i.e., fishing and petrol distribution, the firm seems to be running well.

Questions for Discussion:

1. Evaluate Reaz's approach to business start-up.

2. What are the advantages and disadvantages of using family funds in the start-up phase?
X Fisheries is a proprietorship established in 1981. Its main products are poná (young fish) and mature fish. The firm is managed and controlled by Mr. Anan, the proprietor and managing director (M.D.). In his absence, the overall supervision of the firm is in the hands of Mr. Akmal, the assistant director of the firm. A sardar (chief of workers) directly supervises the activities of the workers. The firm has 33 permanent and 170 casual workers. Of the 33 permanent workers, 18 have been trained in the field. The employees are well paid.

The total area covered by the firm is 54 bighas of land, comprised of 11 separate ponds of different sizes. The land is leased and the average lease period is 3.23 years, with the option to renew at any time.

The firm is situated about 20 kilometers from the residence of the M.D. in the divisional town where the products of the firm are also marketed. The M.D. is involved in other trades in town. Since the M.D. remains busy with his multidimensional trades, he can spare only a few days a month in this firm. But his presence is very much needed for the proper upkeep of the firm. As he often remains absent from the firm, the M.D. usually finds some lapse of work by the employees which affects the profitability of the firm. In his presence, this does not occur. As an attempted remedy, the M.D. once gave the workers 12 percent of the firm’s profit as a bonus. This measure failed to make them work as desired.

The total capital of the firm is Tk.1,92,500/-, and the owner’s share of the capital is Tk.1,80,000/-. The remaining Tk.12,500/- is a short-term loan from a commercial bank at 16 percent per annum interest. The firm has no long-term debts. The asset structure of the firm is as follows:

1. **Fixed Assets**
   a. Fishing nets of different types 20,500/-
   b. Leased Land 90,000/-

   **Total:** 1,10,500/-

2. **Current Assets**
   a. Pona (young fish) 20,000/-
   b. Food for fish 42,000/-
   c. Fertilizer 20,000/-

   **Total:** 82,000/-

**Total:** (1 + 2) 1,92,500/-
The degree of liquidity is very high, especially with regard to bills and current obligations. The firm can start selling its products only after 30 days of the first release of the fish eggs into the ponds.

The firm is running profitably, and presently the M.D. is thinking about expansion of the firm by adding other ponds to maximize his return on equity. The expansion program will require a fixed cost of Tk.18,000/-. The variable cost would be relative to the previous one. Because of high credit standing and profitability, the firm can obtain financing from many sources.

One problem currently facing the fish industry is an epidemic causing fish disease. Eating these diseased fish can result in death to the consumer. Four of the 11 ponds of this firm are affected by the epidemic. The M.D. is using salt, lime, and potassium permanganate in an attempt to control the spread of the disease. Only partial success has been obtained. The Fisheries Department of the Government has taken no action to date except to advise consumers not to purchase diseased fish.

Questions for Discussion:
1. Evaluate the measures taken by the M.D. to encourage the employees to work properly.
2. As a Managing Director, what measure would you suggest to make the employees work properly?
3. Should the firm expand? If yes, how should the expansion be financed?
4. What other recommendations would you make to the Managing Director?
Bangladesh is an over-populated and poor country where employment opportunity is very meager. The number of job openings is far below that of the number of job seekers. The severity of the situation is clear from the country's increasing and high unemployment rate. The situation has created serious socio-economic problems for the country. The present tendency of people to ascribe status to individuals on the basis of wealth has increased the competition to earn more by any means and has eroded the ethical and moral standards of the people alarmingly. However, though very few job opportunities come to a new job seeker, choosing the best by taking into account all the affecting factors can create a dilemma.

Mr. Hossein, while studying in the Master's Degree in Management at Dhaka University, prepared himself to take the civil service examination in 1986. Having qualified in the written test, he appeared in the interview and medical test, but the Public Service Commission (PSC) did not disclose the results until November, 1987. Civil Service in Bangladesh is a prototype of the Indian Civil Service (ICS) of British India. The associated ruler image has not changed even after the two liberation wars. They are the true master of the people in Bangladesh in the form of formidable bureaucracy.

Mr. Hossein, having stood 1st Class 1st in the Master's Programme, had the opportunity to apply for a lecturership in Dhaka University in February, 1987. Due to his bright academic background, he obtained 1st division in S.S.C., stood second in 1st division in H.S.C., and stood 1st in 1st class in the B.Com. (Hons. in Management). Added to his good interview performance, he was selected and joined the University as a Lecturer in August, 1987, in the NNPS of Tk.1650-100-2250-EB-110-3020, but he was in fact given an initial starting basic pay of Tk.2150 with other admissible allowances. Dhaka University is a good place for a person with an excellent academic background like that of Mr. Hossein, but other avenues also became open to him.

At the end of November, 1987, the PSC announced the names of the qualified candidates for civil service where Mr. Hossein found his name. At last the door to become a member of the bureaucracy opened to him. In January, 1988, Mr. Hossein received an appointment letter from the Ministry of Establishment to the post of Assistant Commissioner of Taxes in the NNPS of Tk.1650-100-2250-EB-110-3020. He was directed to join on or before February 15, 1988. Otherwise, the offer would be cancelled. What a dilemma!

Teaching in Bangladesh is widely respected and is given a high social status. Teachers are usually known as honest, guides to the society, the backbone of the nation, and outspoken against all social evils. It is true that a majority of the teachers in Bangladesh are economically poor. Even our artists portray a teacher as poorly dressed and starved. They are not considered a good choice by parents for their daughters to marry. Parents
usually prefer a person working in a position which will bring more than the legal income.

Dhaka University, where Mr. Hossain is employed, is the largest and leading educational institution in the country. Almost all the leading intellectuals, scholars, scientists, authors, and bureaucrats in the country are the product of this University. Anyone would feel proud and privileged to become a member of the academic faculty of this institution. The University provides every teacher with an office, but the majority of the teachers have to share a room with their colleagues. No one is provided with a telephone, bearer, or equipment facilities, but every teacher is allowed to use the telephone and equipment facilities of the department office when needed. At present, the University has no financial assistance programme for higher study abroad, but the chance of getting a scholarship generally offered by different foreign bodies, agencies, and governments directly to the universities are much higher at Dhaka University. It is said that every teacher of this university gets a scholarship opportunity for post-graduate studies like Ph.D., MBA, M.Phil., and even for post-doctoral studies. One could hardly find a teacher who has not received a scholarship or financial assistance in some form and earned a higher degree from a foreign university among the faculty members except for recent recruits. Moreover, one can do consulting, research, etc., and earn a lot. Though this facility is not open to all faculty members of the University, being a member of the faculty of business studies, the avenue is quite open to Mr. Hossain.

The reward system of the University is good in the sense that here primarily merit is considered for higher positions. Every position is filled as if it is a new vacancy; that means that the same process of selection is repeated—advertisement, screening of applications, interviews, selection, and placement. So, if anyone earns a higher degree or has publications, that higher position would be available regardless of seniority. Besides this, one would also get one increment for an additional Master's Degree and two increments for a Ph.D. The work environment is quite congenial, and autocratic management is totally absent. Moreover, after becoming a professor, the prospect of having a prestigious position such as a ministership, visiting fellowship to foreign universities, chairmanship of different government bodies, etc., is quite high.

On the other hand, if he joins the civil service, he will get a well decorated and large office, a telephone in the office and in his residence, a personal bearer, and a transport. A well-known additional source of income in this position is bribes. Of course, this involves an ethical issue, but one can hardly find a person in this area/service who doesn't use this source.

Illegal or black money essentially concerns a moral and ethical issue. Society still does not accept the black money or illegal income. People hate those who take bribes. Islam, the religion of the majority of the people in Bangladesh, provides strong sanctions against such income and pronounces that those who will earn illegally and take food bought out of such money shall be punished with the fire of hell and thrown to hell in the last judgment day. The other two important religions of this soil—Hinduism and Christianity—also have such prohibitions against such illegal income and corruption.
Hinduism provides that those illegal and corrupt earners will take their second birth as an animal. Nevertheless, there are some practical points that one must take into account while dealing with such an issue. The present salary structure of the service holders, particularly in the government, semi-government, autonomous, and semi-autonomous organisations, under the present price level, hardly fulfills subsistence expenses. One has to find an alternate way to subsidise family needs, and when one doesn't find any way to do this legally, which is truly difficult, one turns to illegal ways to meet family needs. Of course, there are people who earn illegally to make themselves comfortable, to lead a luxurious life, to have a house and a car, etc. Nonetheless, there are people who really struggle to survive with their meager income.

The promotion policy of the government provides that one has to serve a specific period to get the first promotion to the next higher position. The same type of fixed period of service is required to get additional subsequent promotions. Here there is no trouble to go through the process like that in the University to get a higher position but all that is needed is a favourable recommendation in the ACR (Annual Confidential Review), which is largely dependent on the extra duty service to the superior. Autocratic management is inevitable, and government officials are debarred from joining any political party. The government provides scholarships for training abroad. Moreover, under the various exchange programmes with different agencies and governments, civil servants have many opportunities for training, i.e., short courses, M.Phil., M.Sc., and even Ph.D., from foreign institutions or universities. One would hardly find anyone among the senior officials who has not had this opportunity. So, the prospect of going abroad is open here, too. In the social context of Bangladesh, civil servants are treated well and honourec by the people.

**Question for Discussion:**

1. If you were Mr. Hossain, what decision would you make and why?
"Mr. Ali, we have just had a terrible fire in our microbus!" The Chief Medical Officer, Dr. Ahmed, excitedly informed the Transport Officer by telephone. "The fire's out now, but there has been serious damage. The driver just started the car, and the car burst into flames." Mr. Ali then requested the details in writing.

Dhaka University owns and operates for various purposes a number of transports—buses, microbuses, pick-up vans, and cars. Most of these vehicles are centrally operated, but some of them are exclusively used by an institute or service centre. For example, a fleet of 15 buses used for transporting students is operated and managed centrally by the Transportation Department headed by a Transport Officer. The Transport Officer works under the direction and in close liaison with a Deputy Registrar. Cars of the Vice Chancellor, Pro-Vice Chancellor, Treasurer, and Registrar, and some vehicles kept in a pool for general use as and when needed, are also managed centrally. On the other hand, three vehicles including an ambulance and a microbus are used exclusively by the Medical Centre headed by the Chief Medical Officer.

On December 3, 1984, the microbus (Dhaka cha-3467) of the Medical Centre caught on fire: engine accessories such as the distributor, the carburetor, the A.C. pump, etc., and two tires, one battery, the inner lining, and two seat cushions were burnt and destroyed.

All the drivers of the Medical Centre drive this microbus. No individual driver was assigned specifically to it. The damage was heavy. On request from the Transportation Department of Dhaka University, the Karnaphuli Works Ltd. submitted its proposal to repair the vehicle with an estimate of cost at Tk.1,41,000 (Exhibit 1). The estimate was itemised and called for specific parts to be replaced or jobs to be done. It stipulated that, if it was found at the time of repair that some additional parts were to be replaced or some additional job was to be done, the cost would go up and a further estimate would be sent to the University in due course. M/S. Karnaphuli offered a guarantee of six months.

The chief mechanic of the motor workshop of Dhaka University was also asked to make an estimate of cost for repairing the damaged vehicle; his estimate was Tk.45,000 (Exhibit 2). The chief mechanic expected trouble-free service from the repaired vehicle for two years. The Deputy Registrar in charge of Transportation held the view that the estimate of Tk.45,000 was very conservative. It could not be less than 50,000 taka. If the vehicle were not repaired, it could be sold for an estimated amount of Tk.25,000.

The Vice Chancellor then inquired into who had responsibility for the repairs. The Transport Officer thought that the claim should be filed with the insurance company. But when Mr. Ali checked the records, he was shocked.
discovered that this microbus was bought in 1982 and registered on August 31, 1982. On April 12, 1982, a comprehensive policy was taken on this vehicle by the Transport Department and the microbus was sent to the Medical Centre. The policy expired on December 4, 1983. But his shock was in finding that the policy had not been renewed. The Treasurer of Dhaka University believed that elementary steps necessary for maintaining the vehicle had not been taken.

The Treasurer obtained the views of Dr. Ahmed and Mr. Ali which are quoted below:

Mr. Ahmed: "The Medical Centre is never given, so it can never preserve, necessary papers relating to the various transports used by the Centre. The maintenance work on these vehicles is also done by the Transport Officer. All papers relating to a vehicle of the Centre bearing number 1230 were with the Transport Officer even a month ago. Only recently (after the accident) has he sent all the papers to the Centre after renewing them without receiving any request from us. If the Transport Officer has renewed the papers relating to vehicle No. 1230, he should have also renewed the papers relating to the microbus bearing number Dhaka cha-3467.

"Moreover, papers relating to the microbus are still with the Transport Officer.

"The vehicles of the Medical Centre are always used for emergency purposes. But in spite of our requests, arrangements have not been made for their repairs. Under the pressure of circumstances, the drivers are compelled to use the vehicles which are apparently in bad condition."

Transport Officer: "If a vehicle is given for the exclusive use of a department, institute, or centre, according to the rules of the University, the chief of that department, institute, or centre will be responsible for everything relating to that vehicle. If a vehicle becomes defective and it needs repair, the chief of the user department communicates it in writing to the Transportation Department, which examines the vehicle, prepares estimates for repairs, and gets the repair work done. The responsibility of repairs lies with the Transportation Department, but the responsibility of monitoring the road-worthiness lies with the chief of the user department for insurance, paying road tax, or doing work related to their vehicles. It is only on request from the user that the Transport Officer gets those things done. But this he does as something in addition to his normal duties."

Questions for Discussion:

1. Analyze the procedure currently in use by the Transportation Department.
2. Whose responsibility is it to pay for the repairs? Why?
3. What action should be taken now with the microbus?
<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine overhauling</td>
<td>Tk. 2,200</td>
</tr>
<tr>
<td>Transmission overhauling</td>
<td>500</td>
</tr>
<tr>
<td>Suspension overhauling</td>
<td>600</td>
</tr>
<tr>
<td>Brake overhauling</td>
<td>600</td>
</tr>
<tr>
<td>Electrical repairs</td>
<td>800</td>
</tr>
<tr>
<td>Tailoring jobs</td>
<td>3,000</td>
</tr>
<tr>
<td>Painting (inside and chassis)</td>
<td>9,000</td>
</tr>
<tr>
<td>with materials</td>
<td></td>
</tr>
<tr>
<td>Dent beat out and reshaping</td>
<td>20,000</td>
</tr>
<tr>
<td>Spare parts supply for body work</td>
<td>22,900</td>
</tr>
<tr>
<td>Spare parts supply for electrical work</td>
<td>25,700</td>
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<tr>
<td>Spare parts supply for engine work</td>
<td>50,701</td>
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<tr>
<td>Machine shop work</td>
<td>3,500</td>
</tr>
<tr>
<td>P.O.L.</td>
<td>800</td>
</tr>
<tr>
<td>Miscellaneous items</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Total Tk.</strong></td>
<td>1,41,301</td>
</tr>
</tbody>
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### Dhaka University Motor Workshop Repair Estimate

#### Description of Work

<table>
<thead>
<tr>
<th>Work Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of making new seats</td>
<td>Tk. 4,000</td>
</tr>
<tr>
<td>Body repair and spray paint</td>
<td>Tk. 6,000</td>
</tr>
<tr>
<td>Wheels - two sets</td>
<td>Tk. 4,000</td>
</tr>
<tr>
<td>Batteries</td>
<td>Tk. 4,000</td>
</tr>
<tr>
<td>Shock absorber - two</td>
<td>Tk. 1,600</td>
</tr>
<tr>
<td>Rear rubber - four</td>
<td>Tk. 600</td>
</tr>
<tr>
<td>Flexible pipe - two</td>
<td>Tk. 300</td>
</tr>
<tr>
<td>Jumping booz - two</td>
<td>Tk. 200</td>
</tr>
<tr>
<td>Brake overhauling four wheel master cylinder kits</td>
<td>Tk. 1,600</td>
</tr>
<tr>
<td>Clutch plate - 1 piece repair</td>
<td>Tk. 1,600</td>
</tr>
<tr>
<td>C.B. point and condenser</td>
<td>Tk. 200</td>
</tr>
<tr>
<td>Ignition coil</td>
<td>Tk. 500</td>
</tr>
<tr>
<td>Spark plus four piece</td>
<td>Tk. 200</td>
</tr>
<tr>
<td>Distributor cap one piece</td>
<td>Tk. 200</td>
</tr>
<tr>
<td>H.T. lead one set</td>
<td>Tk. 200</td>
</tr>
<tr>
<td>Rotor</td>
<td>Tk. 100</td>
</tr>
<tr>
<td>Air hose pipe and engine free</td>
<td></td>
</tr>
<tr>
<td>heat pipe - two</td>
<td>Tk. 300</td>
</tr>
<tr>
<td>Shelf and dynamo</td>
<td>Tk. 6,000</td>
</tr>
<tr>
<td>Cut out and wiring</td>
<td>Tk. 1,200</td>
</tr>
<tr>
<td>Piston ring - one set</td>
<td>Tk. 1,800</td>
</tr>
<tr>
<td>and head repair</td>
<td></td>
</tr>
<tr>
<td>Side glass, back glass, bound glass, and rubber channel</td>
<td>Tk. 10,000</td>
</tr>
</tbody>
</table>

Total Tk. 45,000
In January, 1977, Mr. Karim, Mr. Khan, and Mr. Ahmed applied to a DFI for a foreign currency loan equivalent to Tk.2,13,000 and a local currency loan of Tk.2,50,000 to establish a hosiery fabric manufacturing unit named MH Mills Ltd. in an industrial estate with an estimated total cost of Tk.8,58,000. The production capacity was to be 97,600 pounds tabular fabrics to be converted into 42,000 dozen vests of various sizes and 5,600 dozen underwear based on two shifts per day, working for 300 days per year. The promoters were newcomers in this industry. The estimated total cost exclusive of Tk.21,000, which may be needed as contingencies on machinery and, if needed, will be supplied by the DFI. For financing purposes, this amount has not been taken into consideration. But the amount has been given effect in analysing profitability.

The total cost of the project, excluding net working capital, was estimated to be Tk.7,58,000, out of which Tk.463,000, including the foreign exchange component equivalent to Tk.213,000, was proposed to be sanctioned by the DFI, and the balance of Tk.395,000 was proposed to be raised from the director as paid up capital.

The salient features of the project, assumptions on which the analysis was based, and results obtained by the team are given below:

1. **Market and economic aspect:** The project will cater to the need of one of the essential items for mass use in the country. The project is expected to make quality products at a competitive price in order to capture markets in Pakistan, the Middle East, and some European countries.

   Estimated demand is 15.45 million pounds. The current demand gap is 3.07 million pounds, which will increase to 4.19 million pounds in 1979-80. The project, with annual installed capacity of 0.097 million pounds, will meet about 3.1 percent of the current demand gap and in 1979-80, it will fill up about 2.3 percent of the demand gap.

2. **Technical services and know how:** Experienced technical hands will be recruited locally; availability will pose no problem, and the manufacturing technique of hosiery products is simple.

3. **Plant and machinery:** The list of the machinery proposed by the engineers will ensure completeness of the unit and will be balanced.

4. **Raw material and spares:** Annual raw material requirement at rated capacity is Tk.22,47,000, out of which raw material for Tk.11,450 (C&F) will be imported.
Spares of Tk.6,000 will be required annually.

5. **Utilities:** Approximately 600 gallons of water will be required daily, which will be supplied from the main source.

The power requirement of 13 KW will be supplied by BPDB.

6. **Transportation:** Vehicles will be hired.

7. **Labour:** Two technical, two managerial, 17 skilled, and 11 unskilled labour will be recruited locally.

8. **Schedule of implementation:** Will be ready for operation within 12 months from the date of first disbursement of loan.

The details of earnings forecasted are given as Appendix 1. The sales value was calculated on the basis of the following assumptions:

1. Operating time - two (2) shifts of eight (8) hours per day
2. Production period - 300 working days
3. Work in process - three (3) days
4. Finished goods inventory - 15 days’ production
5. Selling price - Tk.63 per dozen

**Debt Service Coverage**

The project will enjoy a tax holiday for seven years after it goes into production. Debt service coverage (times) will be 2.06, 1.85, 2.28, and 2.54 for four consecutive years, respectively.

**Break-even Analysis**

The project is expected to break even at 40 percent of its normal capacity utilization. Capacity utilization in the fourth year has been estimated at 75 percent. Total manufacturing, administrative, selling, and financial expenses will be Tk.20,79,000, out of which Tk.259,000 will be fixed.

**Financial Rate of Returns of the Project**

The financial rate of return of the project, based on discounted cash flow technique and without adjustment of transfer items, works out to be 25 percent. Assumptions made for calculating FRR are given in Appendix 2.

The projected balance sheet for the construction year and for the subsequent four years has been prepared and is shown in Appendix 3.
Questions for Discussion:

1. As a member of the Board of Directors, do you think the project is viable? Justify your comment with figures.

2. As a financial analyst, do you think the assumptions made are realistic? Explain.

3. With the given information, prepare a fund flow statement and calculate the following:
   a. Debt equity ratio
   b. Debt service coverage times
   c. Break even price and sale
   d. Financial rate of return

4. How can the report be improved?

Appendix 1
Forecast of Earnings
(Tk. in '000')

<table>
<thead>
<tr>
<th></th>
<th>Yr.1</th>
<th>Yr.2</th>
<th>Yr.3</th>
<th>Yr.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1692</td>
<td>2080</td>
<td>2240</td>
<td>2243</td>
</tr>
<tr>
<td>Cost of Goods Sold</td>
<td>1454</td>
<td>1801</td>
<td>1920</td>
<td>1920</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>238</td>
<td>279</td>
<td>320</td>
<td>323</td>
</tr>
<tr>
<td>Gen. Admin. &amp; Sell. Exp.</td>
<td>92</td>
<td>90</td>
<td>96</td>
<td>98</td>
</tr>
<tr>
<td>Financial Expense</td>
<td>74</td>
<td>74</td>
<td>69</td>
<td>62</td>
</tr>
<tr>
<td>Net Operating Expense</td>
<td>72</td>
<td>115</td>
<td>155</td>
<td>163</td>
</tr>
<tr>
<td>Bond Purchases 30%</td>
<td>21</td>
<td>34</td>
<td>46</td>
<td>49</td>
</tr>
<tr>
<td>Profit after Bond Purchase</td>
<td>51</td>
<td>81</td>
<td>109</td>
<td>114</td>
</tr>
<tr>
<td>Return on Bond at 9%</td>
<td>-</td>
<td>4</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>Net Profit</td>
<td>51</td>
<td>85</td>
<td>121</td>
<td>136</td>
</tr>
<tr>
<td>Dividend</td>
<td>-</td>
<td>39</td>
<td>78</td>
<td>76</td>
</tr>
<tr>
<td>Profit Retained</td>
<td>51</td>
<td>46</td>
<td>43</td>
<td>58</td>
</tr>
<tr>
<td>Return to Ave. Equity (%)</td>
<td>12</td>
<td>17</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Return to Ave. Capital Employed</td>
<td>12</td>
<td>15</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>
Appendix 2
Assumptions for Financial Rate of Return

1. The construction schedule of the project is 13 months. Investment in the project has been assumed to be made in 12 months.

2. Fixed cost of the project, excluding interest during construction, is estimated to be:

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount in Tk.('000')</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>26,000</td>
</tr>
<tr>
<td>Building</td>
<td>417,000</td>
</tr>
<tr>
<td>Machinery</td>
<td>299,000</td>
</tr>
<tr>
<td>Contingencies</td>
<td>21,000</td>
</tr>
<tr>
<td>Other assets</td>
<td>10,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Tk.752,000</strong></td>
</tr>
</tbody>
</table>

3. Preliminary and pre-operation expense of Tk.6,000 will be written off in the first year.

4. The operating life of the project, without requiring any replacement investment, will be 10 years.

5. Investment in inventories has been estimated as shown below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount in Tk.('000')</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>299</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>4-10</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>288</strong></td>
</tr>
</tbody>
</table>

6. The salvage value of the project has been estimated as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Basis of Realisation</th>
<th>Amount in Tk.('000')</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>100% of original value</td>
<td>26</td>
</tr>
<tr>
<td>Building</td>
<td>10% of original value</td>
<td>42</td>
</tr>
<tr>
<td>Machinery</td>
<td>5% of original value</td>
<td>16</td>
</tr>
<tr>
<td>Inventory</td>
<td>100% of original value</td>
<td>288</td>
</tr>
</tbody>
</table>

7. Depreciation:

Building at 5% on Tk.417,000
Machinery at 10% on Tk.320,000
Office furniture at 20% on Tk.10,000
## Appendix 3

### Projected Balance Sheet
(Taka in '000')

<table>
<thead>
<tr>
<th></th>
<th>Const.</th>
<th>1st Yr.</th>
<th>2nd Yr.</th>
<th>3rd Yr.</th>
<th>4th Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash &amp; Bank Bal.</td>
<td>100</td>
<td>67</td>
<td>94</td>
<td>129</td>
<td>190</td>
</tr>
<tr>
<td>Other Current Assets</td>
<td></td>
<td>269</td>
<td>317</td>
<td>340</td>
<td>340</td>
</tr>
<tr>
<td>Investment</td>
<td></td>
<td>21</td>
<td>55</td>
<td>101</td>
<td>150</td>
</tr>
<tr>
<td>Prelim. &amp; Pre-Op.</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Fixed Assets (net)</td>
<td>752</td>
<td>697</td>
<td>642</td>
<td>587</td>
<td>532</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>585</td>
<td>1054</td>
<td>1108</td>
<td>1157</td>
<td>1212</td>
</tr>
<tr>
<td><strong>Liabilities &amp; Owners' Equity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current Liabilities:</strong>&lt;br&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sundry Creditors</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Short-term Borrow.</td>
<td>-</td>
<td>150</td>
<td>176</td>
<td>188</td>
<td>188</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>150</td>
<td>176</td>
<td>188</td>
<td>188</td>
</tr>
<tr>
<td><strong>Long-term Liabilities:</strong>&lt;br&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSB Loan</td>
<td>463</td>
<td>437</td>
<td>385</td>
<td>333</td>
<td>281</td>
</tr>
<tr>
<td>Differed Customs</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Debentures</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total--Long-term</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>463</td>
<td>437</td>
<td>385</td>
<td>333</td>
<td>281</td>
</tr>
<tr>
<td><strong>Owners' Equity:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paid up Capital</td>
<td>395</td>
<td>395</td>
<td>395</td>
<td>395</td>
<td>395</td>
</tr>
<tr>
<td>Installment</td>
<td>-</td>
<td>51</td>
<td>97</td>
<td>140</td>
<td>198</td>
</tr>
<tr>
<td>Retain Earnings</td>
<td>-</td>
<td>51</td>
<td>97</td>
<td>140</td>
<td>198</td>
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<tr>
<td><strong>Total</strong></td>
<td>395</td>
<td>467</td>
<td>547</td>
<td>636</td>
<td>743</td>
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<tr>
<td><strong>Total Liability &amp; Owners' Equity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>858</td>
<td>1054</td>
<td>1108</td>
<td>1157</td>
<td>1212</td>
</tr>
</tbody>
</table>