

Main Building Refurbishing Project at NIM

Sudhir Ambekar

Case Summary

The case is related to incorrect project planning which has resulted into a delay in completion of Main Building Refurbishing Project of a nationally important management institute. Timely completion of the project is essential aspect of the project management as it might result in losses to both the client and the project executer. For clients of construction project, delay in work is critical and disturbing factor as it may cause delay in the scheduled activities. For project executer, delay in project leads to loss of goodwill and financial penalties as per the contracts.

Delay in project may be either due to unavoidable factors like rains or due to poor project management activities. In the present case the delay is due to second factor, due to poor project planning and execution done by the construction firm.

Analysis

Causes for Project delay

In the present case, delay in the project can be attributed to incorrect project planning and insufficient resources deployment.

Incorrect project planning

Analysis of the data given in Exhibit-3 of the case shows that the project will take at least 60 days to complete a two thousand square meter work-front with planned resources (see table one). But the project plan anticipated two of the 2000 square meter work-front to be completed in one month. This shows that the project management team has miscalculated the time required to complete the project. The subsequent implementation is also based on same planning leading to delay in project.

Insufficient resources deployment

Table 1 show that with current resources it will take at least sixty days to complete 2000 square meter work front. Considering the eight month time frame to complete the project, Mid India Construction Company (MICC) should have worked with parallel work fronts. There is need of at least four parallel work fronts to complete the project. This can be worked out by deploying additional scaffolding for parallel work. Moreover, parallel work is easily possible as the work fronts are independent of each other.

Table 1

Activity	No. of days required to complete the work with present resources#	Possible start day	Expected end day
A	2	1	3
B	5	3	8
C	5	8	13
D	5	13	18
E	5	18	23
F	6	23	29
G	6	29	35
H	1	35	36
I	5	39	44
J	5	44	49
K	5	49	55
L	5	55	60
M	6	1	7
N	7	7	14
O	7	14	21
P	7	21	28

calculated based on no of teams employed and work rate per team

Project costing

Based on data in Exhibit-3 of the case, the total cost of each 2000 square meter front is worked out to be Rs. 1928620.71. This results in expected profit of Rs. 2999310.06 to MICC from the project. But as project is going to be delayed with the present planning, MICC has to pay penalty cost of Rs. 10 lakhs as they will not be able to meet any of the deadlines as given in Exhibit-2. This results in reduction in profit to Rs. 1999310.06.

Recommendation

MICC should work with four parallel work fronts with additional deployment of scaffolding. These additional scaffoldings need funds of Rs. 810000. With additional teams, remaining work can be completed in around 193 days. They will also meet the all deadlines as given in Exhibit-2. The expected profit from the new plan would be Rs. 2189310.

Sudhir Ambekar is a participant of Fellow Program in Management in Operation Management and Quantitative Techniques area at Indian Institute of Management Indore. He can be reached at f10sudhiru@iimdr.ac.in.