

PROBLEMS FACED IN AUTOMATION

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Abstract: In current scenario the automation plays important role in any type of industries for the purpose of quick production. For changing over from manual mode to auto mode there are many problems which affect the project of automation. There are two types of problems one is from technical side i.e. testing of software and another is from management side i.e. managing the manpower, material management, communication management within the organization and out of the organization which affects the progress of the project. To the authors knowledge this is the first time to observe the factors which are affecting the progress of the project and to perform the study on them. Result of this study support that which are the factors that affect the progress of the project and how to tackle them in a better way so that they will not affect the project.

Keywords: Problems faced in automation, material management, miscommunication, sequence of activities, Quantitative data analyzed during automation of lube plant, results found.

1. INTRODUCTION

Generally life cycle of any project depends upon various factors internally and externally. At the starting of project it is affected by external factors and while progressing the project is affected by many internal factors. The external factors are common in nature while internal factors are differ from industry to industry depending upon the culture, environment and type of company.

These internal factors are classified into two categories-

- a) Problems faced in testing of system
- b) Problems faced during changing from manual to automation mode.

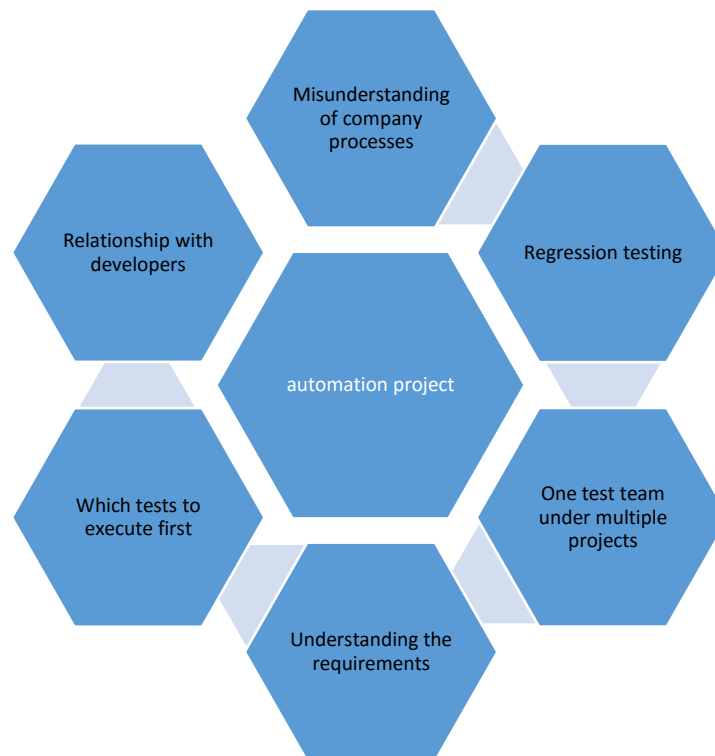
In the progress of any project problems may arise at any stage so finding problems which affects the project is very important and solving them in a way so that there will not be any effect on project is equally important.

Any project has three phases which are starting phase, middle phase and end phase. At the starting of the project there are large numbers of problems through which project has to pass and at the middle level the problems becomes moderate and at the end the frequency of problems is very low. The intensity of problems faced in different levels is different depending upon the type of project for ex.-In a construction project the main problem is manpower, environment but in projects related to software these problems are not there.

2. PROBLEMS FACED IN AUTOMATION

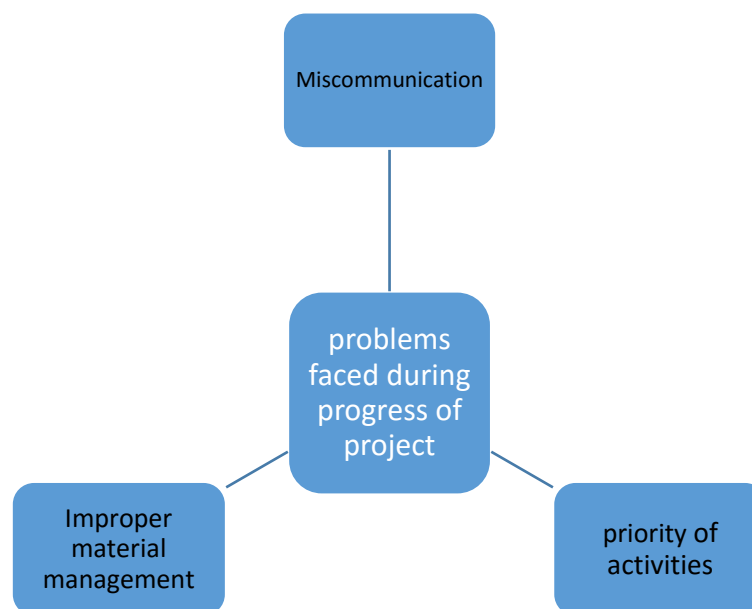
The focus is on the problems faced during the progress of the project but here is the some common problems faced while testing the system. These problems can be eliminated by the side of vendor and these problems is not affecting the project to greater extent. The problems that affect the project to greater extent are internal problems within the organization between different levels that are working on project. These problems can lead the project towards failure so to identify and tackle these problems are very important.

- a) Problems at the time of testing



These are the problems at the time of testing

b) Problems faced during the progress of project are



These are the problems faced during automation

Miscommunication:

Miscommunication between different parties working on project for ex- In automation project there was various parties working which are contractors for fabrication, instrumentation, electric connection and officers of company under whom project is being executed and vendors who is providing the system of automation and consultant.

- Planning
- Organizing
- Staffing
- Directing
- Controlling
- Reporting
- Budgeting

Material management plays important role in any project. The right quantity of material should be available at right time and at right place. In many project there is no material management due to this contractors unable to find the material availability and officers unable to find the amount of material consumed. If there is unavailability of material required contractor has to report to the concern officer and after his request the officer has to place the order for the material required considering the rules and regulations of company. This process takes at least four days to complete and till the availability of material contractor has to stop the work and is waiting for the availability of the material. Due to this the time required to complete the specific task is more than the time required for regular operation. If we forecast the requirement of material and managing it properly we can make material available at the time of requirement reducing the time required.

Here is the example of record of material managed.

B	C	D	E	F	G
material management					
sr no	Type	size	material received	material consumed	remaining
1	Gate valves	2 inch	400	75	325
		4 inch	200	30	170
		6 inch	100	10	90
		8 inch	50	10	40
2	Ball valves	2 inch	300	100	200
		4 inch	150	80	70
		6 inch	100	50	50
		8 inch	70	20	50
3	Audco valves	2 inch	250	156	94
		4 inch	100	84	16
		6 inch	150	130	20
		8 inch	120	90	30
4	NRV	2 inch	100	50	50
		4 inch	50	40	10
		6 inch	30	15	15
		8 inch	20	10	10
5	flanges	2 inch	250	100	150
		4 inch	100	80	20
		6 inch	150	50	100
		8 inch	120	20	100

Table of record of material management

Priority of activities:

It is very important to decide the priority of activities to start with so that there will not be any effect on project. In any project there are many activities for ex – In automation project there were following activities

- a) Fabrication of pipe rack.
- b) Dismantling of existed pipeline.
- c) Instrumentation activities
- d) Electric activities
- e) PLC installation
- f) System testing

In this automation project the officer has to decide the activities in such a manner so that there will not be effect on the continuous operations of plant. for starting of this project firstly fabrication work should complete and then taking all the newly fabricated pipelines in operation after that without affecting the continuous operation of plant completing the rest of activities like dismantling, instrumentation, electric activities etc.

3. CONCLUSION

from this research we can conclude that the problems apart from the software side may affect the project significantly and by tackling them in a better way we can boost the project.

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