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# 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 form 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.

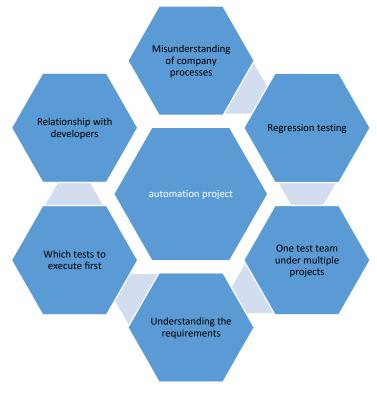
Any project has three phases which are starting phase, middle phase and end phase. At the starting of the project there are large numbers of problems through which project has to pass and at the middle level the problems becomes moderate and at the end the frequency of problems is very low. The intensity 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.

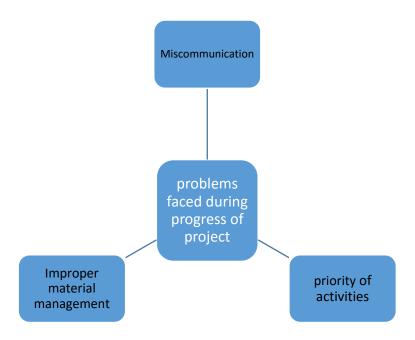
a) Problems at the time of testing

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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:**

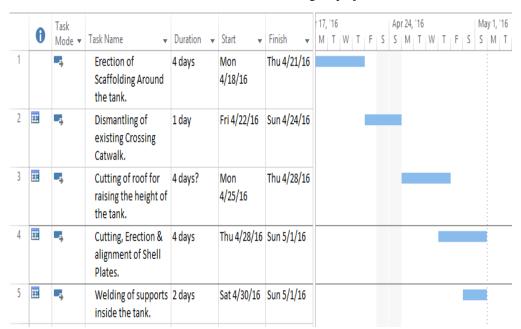
Miscommunication between different parties working on project for ex- In automation project there was various parties working which are contractors for fabrication, instrumentation, electric connection and officers of company under whom project is being executed and vendors who is providing the system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

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There may be problems in these different levels which are working on project that results in communication gap between different levels affecting the progress of the project. In automation project the vendor who is going to provide the system should be fully aware about the processes of the company, product of the company and the requirement of company from them and to give this information to the vendor is the duty of the concern officer if this is not done properly then definitely the system will not meet the requirements of the company though it is free from all the faults from vendor side and to make this happen, the main communication medium between officers and vendors is the consultant of the company who is looking after these activities of the project.

Consultant knows all the requirements of the company, what company wants, what are the prerequisite to get the required system which results in the completion of needs of company and it is consultants responsibility to aware the vendor about requirement of company. For this the consultant and company officers have to arrange the timely meetings with the vendor and contractors working on project so that everyone knows the status of the project, has to take the follow up actions. Record of meetings held should be kept with the officer under which the project is being executed so that he would come to know the exact status of the activities of the project.

There should be record of the contractors of completion of work for example the activities should recorded in Microsoft project here is the Gantt chart of the activities of the contractor working on project.



Gantt chart of contractors work

With the help of this we would come to know the progress of the project and we can plan for the rest of the project.

#### **Improper material management:**

The fundamental objectives of the Materials Management function, often called the famous 5 Rs of Materials Management, are acquisition of materials and services:

- of the right quality
- in the right quantity
- at the right time
- from the right source
- · at the right price

Material management is nothing but the Effective management & supervision It depends on managerial functions of

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- 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.

В	С	D	E	F	G
		material n	nanagement		
2	Туре	size	material received	material consumed	remaining
	Gate valves	2 inch	400	75	32
		4 inch	200	30	17
		6 inch	100	10	9
		8 inch	50	10	4
	Ball valves	2 inch	300	100	20
		4 inch	150	80	7
		6 inch	100	50	5
		8 inch	70	20	5
	Audco valves	2 inch	250	156	9
		4 inch	100	84	1
		6 inch	150	130	2
		8 inch	120	90	3
	NRV	2 inch	100	50	5
		4 inch	50	40	1
		6 inch	30	15	1
		8 inch	20	10	1
5	flanges	2 inch	250	100	15
		4 inch	100	80	2
		6 inch	150	50	10
		8 inch	120	20	10

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

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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.

#### **REFERENCES**

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