Challenges of project scheduling in the software Industry

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ABSTRACT

Project scheduling comes after project planning is finished. Knowing the extent of the activities, their interdependencies, and their length is necessary for this. The largest difficulties a project manager encounters are in developing and designing a realistic project schedule. There are a number of typical issues that can have an effect on project performance or delay: Managing the Unknown or Managing Change, Assigning Resources or Resource Constraints, and Task duration estimation. Project scheduling issues are being exacerbated by these three factors and their causes. Effects of resources Constraints have an effect on the performance or delay of projects. This research has been conducted In order to determine which frequent issues are the most prevalent; the survey results are presented in the conclusion.

Keywords: Project, Project Scheduling, Interdependencies, Project Performance, Exacerbated,software industry

1. INTRODUCTION

The software industry is the collection of businesses and individuals who actively pursue the development and publication of Computer software in a professional capacity. While it can include amateur and hobby software developers as well, the industry is primarily dominated by professional software developers. As computers and computer software have become increasingly important in a number of different businesses and aspects of daily life, the industry has also become increasingly important and profitable.

The software industry typically includes companies and people who develop software for anumber of different reasons, including software for recreational use, professional software used

in other industries, and firmware that combines certain attributes of software and hardware. The software industry consists of the development, distribution, and maintenance of software. It can be broadly divided into application software, system infrastructure software, software-as-a-service (SaaS), and operating systems, database and analytics software.

2. REVIEW PAPERS

[1](Jsyst.softw 2017) there is not enough literature on effort estimation approaches in cse and associated cost factors ,[2](Dominiguecaroline 1994) unfortunately software development projects have been identified with budget complications delays and failure , [3](Gnagi Zimmermann and rihm) it is impossible to accomplish tasks on time because some resources such as labour and materials are not readily available at that moments[4](brodlykeilser and logan 2019) have suggested a significantly more practical method for combining deadline with the foreseen future [5] accordingly to (choi and kong 2015) this method is employed in numerous studies pertaining to project scheduling.

3. RESEARCH METHODOLOGY

The procedures or techniques used to identify, select, process, and analyze data about a subject are referred to as research methodology. The methodology section of a research paper allows the reader to assess the overall validity and reliability of the study. Below mentioned are the details for the research. The framework of market research methods and techniques chosen by a researcher is referred to as research design. For this study, we are using correlation research. We have collected the data through the primary and secondary means.

Secondary Data- For systematic research, secondary data has been collected from online sources, academic researches and literature researches.

**primary data-** for this study is to be collected with the help of structured questionnaire.

Sampling Method- Simple Random Sampling

Sample Size- 216 people

Data collection Instrument- Questionnaire.

1. Does software development help in Project Management?

216 responses

Yes	196
No	7
Maybe	13
Total	216

- Yes
- No
- Maybe

90.7%   6%
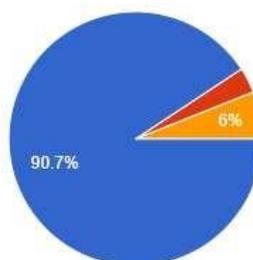
2. Do you think that software is basics requirements nowadays to operate a business?

216 responses

Yes	195
No	8
Maybe	13
Total	216

- Yes
- No
- Maybe

90.3%   6%
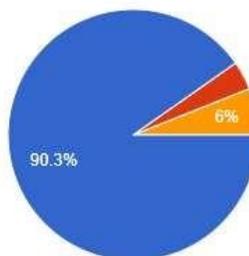
3. Does changing the technology affect the Project?

216 responses

Yes	162
No	18
Maybe	36
Total	216

- Yes
- No
- Maybe

8.3%   16.7%   75%
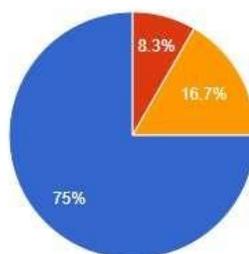
4. What according to you is the most frequently occurring limitation while scheduling project?

The Logical Order	46
The Duration of Each Activity	57
Key Resources Available	84
Imposed Date	29
Total	216

216 responses
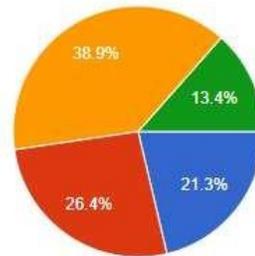
- The logical order
- The duration of each activity
- Key resources available
- Imposed date

5. Which of the following factors can become the obstacle for human resources to complete theproject?

Poor Estimation of Team Size	11
Lack Of Management Skills in Team Members	31
Lack Of Executive Support and User Involvement	25
Communication Problem	10
All of the Above	139
Total	216

216 responses
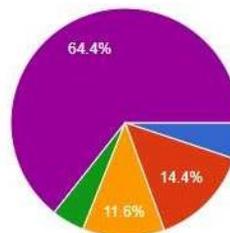
- Poor estimation of team size
- Lack of management skills in team members
- Lack of executive support and user involvement
- Communication problem
- All of the above

6. Does software help to speed up the day-to-day work?

216 responses

Yes	168
No	23
Maybe	25
Total	216
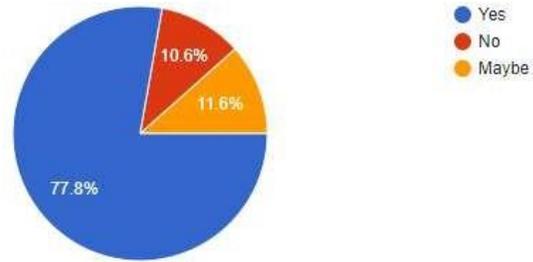
7. What is the software quality determinants considered in your project?

216 responses

Environment	34
People	41
Product	46
Technology	95
Total	216

8. What are the things to consider in scheduling the project?

216 responses

Project Goals	15
Stakeholder	15
Deadline of the Task	24
Team Work	17
All Above	145
Total	216
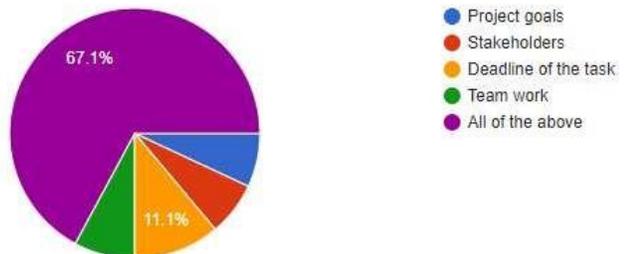
9. Which of the following do you think is the most important aspect to check while creating theproject schedule?

Project Deadlines	23
Resource Setup	29
Resource Over Allocated	18
All of the Above	146
Total	216

216 responses
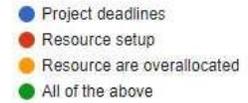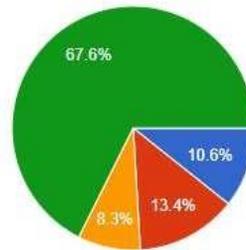
10. What are the important elements of project scheduling?

Planning	20
Routing	10
Scheduling	22
Execution	15
All of the Above	149
Total	216

216 responses
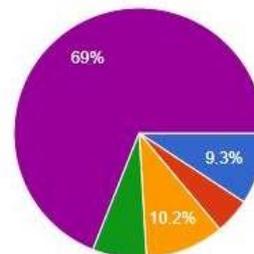
11.   "Project management and scheduling are major issues for every company or organizationfacing rapid change in its environment"
What are your views about the statement mention above?

|	
Agree	112
Strongly Agree	30
Disagree	22
Strongly Disagree	8
Cannot Say	44
Total	216

216 responses
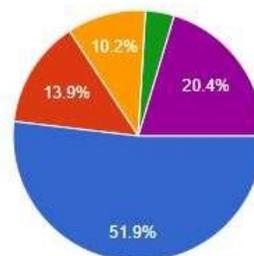
12. Do you think this era of digitization will reform the business model in the present scenario of the world?

216 responses

Yes	193
No	23
Total	216

13. Has project scheduling made businesses become more effective?

216 responses

Yes	194
No	22
Total	216

14. Do you think without softwares business would be able to schedule projects better?

216 responses

Yes	152
No	64
Total	216
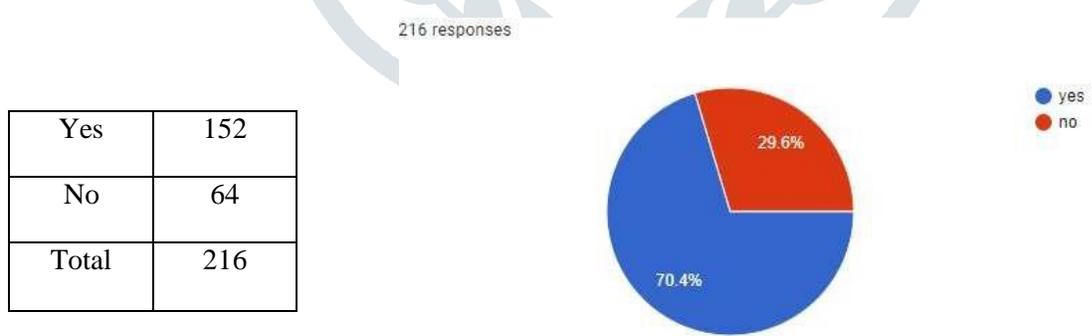
15. How well do you know about project scheduling?

216 responses

Low	100
Moderate	89
Informed	27
Total	216
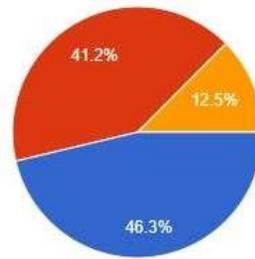
16. Have you faced any project scheduling challenge when using software?

216 responses

Yes	151
No	65
Total	216
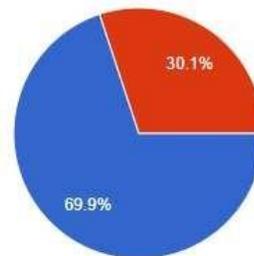
17. Can project scheduling delay the outcome of a project?

216 responses

Yes	174
No	42
Total	216
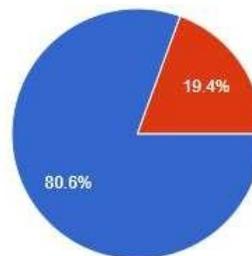
CONCLUSION

The finding through this survey revealed that current practice on software projects scheduling and software projects scheduling effected to the success of any organization or business. Based on the research, we believe the software project scheduling is needed and can be an important consideration factor.

The present study examines hoe software affect in scheduling the projects. Creating a realistic project is one of the biggest challenges a business or organization faces. In this research we analysis several challenges in project scheduling and solution and important aspects while scheduling any project. We also learn that software helps in scheduling the project and helps to represent the plan to deliver the project scope over time.

SUGGESTIONS

Identify the activities or tasks required to create each work package. Assemble the tasks into a project schedule respecting the dependencies, resource availability, and other project constraints. Estimate the time needed to execute each task. The project scope is well-defined and stable. Changes to scope will be limited as this will impact the plan.

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