

The impact of using project management software in Kingdom of Bahrain

Dr. Sarmad Mohammad

ITC- AOU - Kingdom of Bahrain

Assistant Professor – Faculty of IT

Email; sarmad@aou.org.bh

Abstract--Arab Open University conducted an online survey to determine the degree of usage for specific project management software to develop and enhance the project management process in Kingdom of Bahrain. The main purpose of this study is to find out new way to make the use of project management more effective and efficient as possible. It's started with overview of the framework of project management and the current way to deal with project. A SWOT analysis conducted to find out the weak point in the current process; to check for the chance of enhancement and "opportunity" to empower the current strength and to construct an effective metrics for these significant issues of software implementation. The problem mainly stated that the users of project management software not take the full advantage of the information technology which raises the questions: how much users rely on the project management software and degree to measure user's satisfaction with the current project management software.

Keywords: Project Management software, SWOT analysis, effectiveness of software usage.

I- INTRODUCTION

Many user deals with projects in their life without even realizing project requirements & specifications. Some users consider project should be large and complex tasks that take too much time and cost to do it. However, the project defined as any activities that product unique product or service, it's ranging from small set of activities to huge complex activities. Also the project means that group of people collaborate to reach specific goal.

PMI "Project management Institute" defined the project as a temporary Endeavour to produce unique result.[1, 7]. PMI differentiate between the project and the operation, the project should be temporary and produce unique products, and on the other hand the operation is repetitive process to produce usual products. There is a start point for everything; the projects exist before even the term "project" created. Users are manage and coordinate their effort collaborate together to achieve intended result. This fact matches with the definition of Project management which is planning, organizing, motivating, and controlling resource to achieve a goal. The importance of PM software in kingdom of Bahrain that organizations are become more productive by implementing software in (innovation, integration, information and automation) as shown in Figure (1), in order to complete a greater number of tasks in the same time at reduced cost by using automation than we could prior to their invention able to deal with vast amounts of information and process it quickly [3,6] .

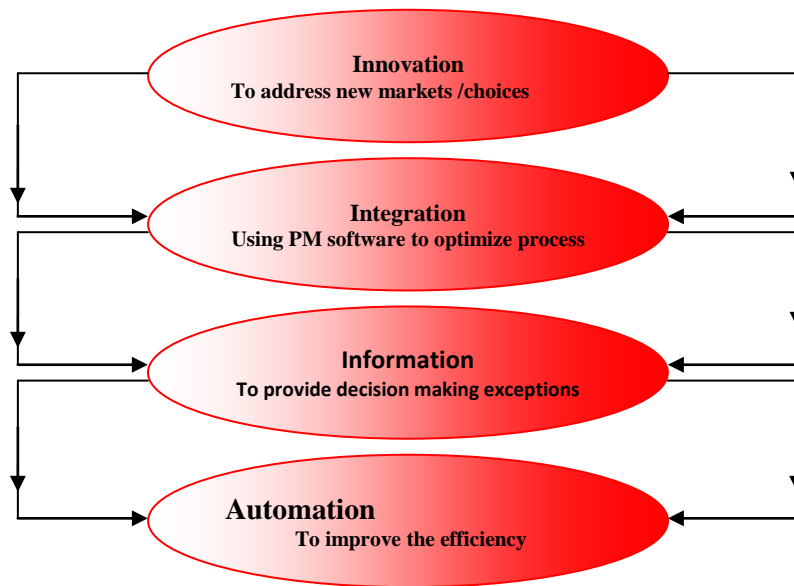


Figure-1 PM software usage

II- METHODOLOGY

Analysis of PM software methodology oriented to following research metrics [4, 5]:

- A- Types of PM software used
- B- Applications of PM software
- C- Benefits of using PM software:
- D- Convenience of PM software
- E- Types of chart in PM software;
- F- Users level of knowledge with PM software:

The results in Figure (2-A-F) show the different metrics profile given above of PM software usage in kingdom of Bahrain, where the survey distributed on line for public & private organizations with population more than 200 responders, outcomes of survey respectively are showed in Figure2-A a high level usage of Microsoft Project management software while Figure-2-B regarding applications which contain many functions that help the user to make the project work more easier, the majority of the respondent are using the planning feature mostly in the project management software with 62% of them. 28% of them are use the project management software for the monitoring and controlling purpose. Only few of them 10% of them- are using for the execution purpose, while Figure-2-C illustrate the benefits outcomes of using PM software: Project management software have many features, the respondent believes that the cost and budget controlling is the most attractive feature to them, 33% of them believe measuring work performance accurately is the best feature to them, 25% believe time and resource management is best feature. In Figure2-D, the majority of the respondent believes the fact that the project management software having many function is the most attractive advantage, 32% of them believe it didn't cost them much is the best advantage. 15% agree the best thing

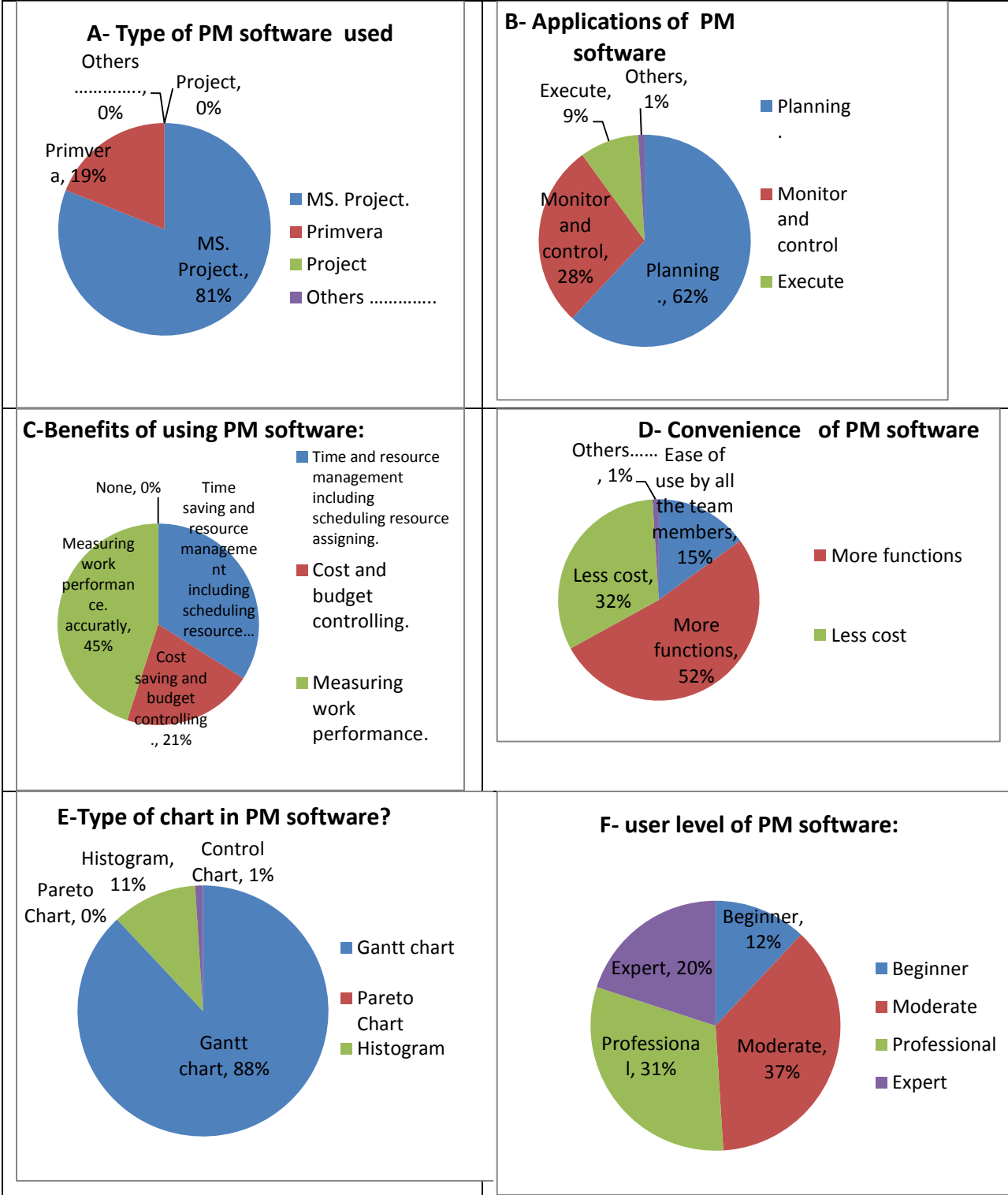


Figure 2- Different metrics profile of PM software usage in kingdom of Bahrain (A-F)

about the project management software is the ease of use. Figure-2-E majority agreed by 88% that they are using Gantt chart in the project, while last part of Figure 2-F show that 37% of the respondents was in moderate level. 31% of them consider themselves as professional, 20% of them are experts. Only 12% was beginners.

III- SWOT analysis of PM software usage

SWOT analysis implemented to find out the weak point in the current process; check for the chance of enhancement “opportunity” by empowers the current strength. The best way to done this is by using SWOT analysis as analytical tool use to analyze the internal and external process of the situation. It includes the strength and weaknesses which represent the internal environment, and the opportunity and the threat for the external. Implemented SWOT to this study summarized in Table-1[11,15].

Table- 1 Summary of SWOT Analysis.

Strength (S)	Weakness (W)
<ul style="list-style-type: none"> • Fast • Accurate • Reliable 	<ul style="list-style-type: none"> • Complex • Not contain all Project management tools. • Require knowledge in (PM) project management.
Opportunity (O)	Threat (T)
<ul style="list-style-type: none"> • Develop a new way to deal with the project management process. • Allow more people to use the project management software. • Enhance the process of project. 	<ul style="list-style-type: none"> • Users will not follow the standard. • More projects could be delay.

- **Strength:**

- Fast

Using project management software is capable to automate the project management process, will lead to faster performance then the process can be finish earlier.

Saving time is very critical in the project work, because “time is money” in the project language.

- Accurate

Faster performance will become useless if the result was wrong, this is not the case with the project management software, the software are intelligent agent that not only can process the activities more faster, but also with more accuracy level. The human by nature are making mistake, the software on the other hand will not give you wrong result, but if you give the software wrong data, he will generate wrong result but because of your wrong input.
- Reliable

The project process are critical, any mistake can cause the project fail, so it's preferable to have reliable software that can work every time that we demand it, and insure that our data will be always safe and existed.
- **Weakness**
 - Complex

Using project management software is not simple; it's not easy to implement the process of project management on it, especially the complex process. It required training to make it possible to use it.
 - Not contain all Project management tools.

Many tools are not existing in the current project management software, and even if they are existed they still not easy to implement such as:
 - Require knowledge in project management, if the user not have the knowledge or at least background of the project management it will be very hard or even impossible to use it.
- **Opportunity**
 - Develop a new way to deal with the project management process

With the advance technology there are possibilities to create new way to deal with project management and make it more effective and efficient process, for example by simplified and automate the process.
 - Allow more people to use the project management software.

Many people not using project management software because of its complication, if this complication has been removed, then more users may use the project management software. The complexity weakness can be reduced by using technology to simplify the processes.
 - Enhance the process of project management.

The process of project management can take the much advantage of technology, to accelerate and improve its process, the advance technology can develop the process and ensure more desirable result and facilitate the project success.

- **Threat**

- The users will not follow the standard.
If the current process has not improved and simplified, the users might skip the standards or fail to meet them, this due to the complexity weakness.
- More projects could be delay.
Because the project management software is not easy to use, and require many knowledge and training, the project process that run on the project management software might became slow, and delay the project itself.
Even if the experts are absent and the other employee doesn't know how to use the project management software, the project result will be affected.

As we seen above, the project management software have many strength that can make the project management process more powerful, but there are weakness and threat as well, so we have the oppportunity to foster our strength to overcome both the weakness and threat.

IV- Conclusions

Based on the on line survey the responses and outcomes of more than 200 individuals regarding PM software usage oriented to following research metrics: types, applications, benefits, Convenience, types of chart most frequently used and users level of knowledge PM software. Most of the users are not satisfied with the current process, they wish if there is a better way to deal with projects, they are using the current project management software for their work and they are convenience with it. However, the study showed that the users are wishing to have a more powerful, easier way to deal with the project management.

Also some users show their interest to use the project management software if it became simpler. That's why the idea of new software to make the experience of project management process better. The PM software increase user performance and allows the users to interact, manage, plan and control the project works in systematic way, the project management software users agreed on benefits regarding saving in time & cost, it's like a guide and tool in the same time, it give the user the instruction for every step, also other objective of this research is point out the user's problems that they are facing in using the project management software through conducting SWOT analysis which are:

1- Complexity

It's not easy to use the project management software, it is required training and knowledge in order to work on it. So the idea of project management software that can

reduce the complexity and make the experience of using project management software more simpler are more than welcome based on the conclusion that we reached.

2- Functionality limitation

The current project management software lack of some functionality, or it's hard to make some functions, so the need of a system that can offer more function in more easy way to implement is welcomed.

3- Require knowledge in project management.

The user cannot use the project management software properly without having a deep knowledge of the project management; however, if there is a system that can facilitate and support you to work for example by giving you guidelines, to make you work without the requirement of knowledge, it will be more usable according to the result.

References

[1] Aaron J. Shenhar, Dov Dvir, (2013) Reinventing Project Management: The Diamond

Approach To Successful Growth And Innovation

[2] Abdullah Saeed Bani Ali , Frank T. Anbari and William H. Money,(2008) Impact of

organizational and project factors on acceptance and usage of project management software and perceived project success.

[3] Brian Pasero, (2007) project management software research paper, MST 512

[4] Candice Thomas-Maddox, Virginia Peck Richmond, James C. McCroskey, (2013),

Quantitative Research Methods for Communication: A Hands-On Approach

[5] Charles G. Cobb, (2011) Making Sense of Agile Project Management: Balancing Control and Agility

[6] David Silverman, (2013), Doing Qualitative Research: A Practical Handbook

[7] George T. Edwards, (2013) Project Management Fundamentals: A practical overview of the PMBOK Blue Crystal Press.

[8] Timothy Kloppenburg, (2014) Contemporary Project Management, Cengage Learning.

- [9] Harold R. Kerzner, (2013) Project Management: A Systems Approach to Planning, Scheduling, and Controlling, John Wiley & Sons
- [10] Harvard Business School Press, (2013) Strategy: Create and Implement the Best Strategy for Your Business
- [11] Joe McKendrick (2013) Why agile isn't enough for many software projects, retrieved July 21st 2014 <http://www.zdnet.com/why-agile-isnt-enough-for-many-software-projects>
- [12] Jonah Lehrer (2011) Steve Jobs: “Technology Alone Is Not Enough” retrieved July 12th 2014 <http://www.newyorker.com/news/news-desk/steve-jobs-technology-alone-is-not-enough>
- [13] Jorge Diego Fuentes Sanchez (2013). A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Fifth Edition.
- [14] Kathy Schwalbe, (2013), Information Technology Project Management
- [15] Laura Pinto, Managing GIS Projects, (2000) Work Site Alliance – Community Based GIS Education
- [16] Louis Cohen, Lawrence Manion, Keith Morrison, (2013), Research Methods in Education
- [17] Mark kozak Holland, (2011), The History of Project Management.
- [18] Paul S. Levy, Stanley Lemeshow, (2013), Sampling Populations: Methods and Applications