

IT Project Management: The Importance and The Trends

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Abstract—Project management a scientific discipline in terms of planning, organizing, managing (running and controlling), to be able to achieve project goals. The main challenge of a project is to achieve the goals and objectives of the project by realizing the boundaries that have been understood before. Generally those limitations are the scope of work, the time of work and the budget of the work.

Keywords — Project Management, PRINCE2, technology development, IT careers

I. INTRODUCTION

“The Importance and Trending of IT Project Management” was a talk given by Mr. Mohd Khairul Reeza Ruslan, Head of Project Management Office of Commerce Dot Com Sdn Bhd, moderated by Dr. Goh Eg Su, a Senior Lecturer in the School of Computing department of UTM. The talk was held on online video conferencing through Cisco Webex on December 1st 2020, Tuesday at 10.00 a.m until 11.00 a.m.

II. IT PROJECT MANAGEMENT

A. The Importance of IT Project Management

Project management is the knowledge, skills, tools and techniques that is applied to meet the project requirements in order to obtain the output or results from it [1]. A project is defined as a one-off scope of work that has 6 distinct characteristics; time, cost, quality, scope, risk and benefit [1]. It is also temporary because it has a starting process and closing. Every project is unique, since it is not a routine but a specific activity to accomplish the goals of a project. Multiple projects that contribute to a bigger target is called a programme. A portfolio is formed when all the programmes are combined and achieve the main output. There are 2 methodologies of project management, which are Projects in Controlled Environments (PRINCE2) and Management of Portfolios (MoP).

PRINCE2 is a project management method that is used by people and organizations [2]. It is build upon 7 essential principles for managing successful projects;

- Continued business justification
- Learn from experience
- Defined roles and responsibilities
- Manage by stages
- Manage by exception
- Focus on product
- Tailoring to suit the project environment



Fig. 1. Methodology of PRINCE2 [2]

PRINCE2 is very beneficial for project management since it can be applied to any type of projects within any industry or sector [2]. The method can work as a communication tool for everyone that is involved in a project. It is a defined structure for accountability, delegation, authority and communication.

B. Trending of IT Project Management

Project management trending was the second part of the talk that was given. It covers 7 total trends that are currently ongoing in IT. The first one is “Gig Economy”. Basically, there are parts of the economy that are profitable through short term contracts and freelance jobs. Most projects involving technology development tend to be more reliant on digital and remote teams as well as co-working arrangements.

Most common data analytics techniques are data mining and cleaning, statistical analysis, time series and probabilistic models. Data mining is a process of collecting data from various sources and making it into a presentable format for modelling and predicting the outcome [7], while data cleaning is to inspect the data obtained, to remove errors and unrelated data. The most common probabilistic techniques are event history analysis, regression trees, Delphi analysis, System Dynamics Modeling (SD) and Markov chains [7]. Data analysis plays a crucial role in understanding the risks for the users in most any development project.

Artificial intelligence is a type of system that is driven and guided by algorithms. These tasks can be done without human intervention as the system will provide ideas and solutions in monitoring the performance of the project as well as making the decision-making to automate tasks. This technique yields more productive and effective results, eliminates repetition and provides better project insights and solutions.

Charge Management is a process for setting policies, procedures, and documentation of project planning,

management, expenses, and cost control. The main benefit of this process is to be able to create protection or monitor the project. The importance is to identify opportunities for improvement, strategic planning, and operational decision making regarding the procurement and use of resources needed by the organization.

Melding method can be done by combining with the other project management methodologies. This method can also help in many other ways such as making the project team successful by combining methodologies, adapting, and adjusting the project for unexpected challenges.

Approach for managing a project is crucial for a successful project outcome. The classic technique is the simplest technique that includes discussing a plan, dividing and estimating tasks to execute, allocating resources and getting feedback from the team as well as keeping aware of the deadlines.

Emotional intelligence (EQ) has become something of a bellwether for effective leadership. Various studies have highlighted a link between understanding emotions and leadership and team performance and success.

III. RELEVANT IT CAREERS

TABLE I. Relevant IT Careers and its Description

Careers	Work Description
Product Development Project Manager	Responsible for researching new opportunities for developing a new marketable product to distribution. They are also responsible for improving an existing product to meet customers' needs better and strengthen the current market [3].
Cloud Engineer	responsible for any technological work associated with cloud computing. This can include designing, planning, management, maintenance and support [4].
App Developer	Responsible for creating, maintaining, and programming code to develop mobile apps and mobile platform programs that meet the needs and requirements of the clients using [5].
Database Administrator	Responsible for evaluation of purchased software, maintaining the integrity and performance of company databases and ensuring the security of company data optimally [6].

IV. REFLECTIONS

- My dream job is to one day be a lead product manager, creating and scaling innovative tech products. Because of my passion for digital platforms, I want to be involved in working on projects especially because I love working in places that put an emphasis on collaborative environments and teamwork. I know being a lead product manager, creating and scaling innovative tech products is a big goal, so I'm ready to do everything I can to develop my skills and work alongside talented people.

- With this talk I would be able to understand more about technology development and the projects regarding technology as well as determining my ambition about technology in the future. Jobs with huge paychecks such as database administrator, cloud engineer and application developer will surely attract people such as myself to study more about technology and its developments.
- My action to improve my potential is that I will make a chart regarding my project management and the time needed to complete it so that I can complete all assessments in time. I would also love to study more about the high-end technology and communication devices such as Virtual Reality (VR), the presence of 5G, wireless phone charger, ordering food on restaurant via online instead of looking at the menu, and many more. Technology is always evolving, even more rapid than we had ever known. This is why we should use and apply these technologies properly to make our lives easier.

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