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Technology and Information System
The Importance and Trending of IT Project Management

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Abstract- **This report is about the importance, types and every other thing about Project management discussed by MR MOHD KHAIRUL REEZA RUSLAN. The concept of project management actually depicts how to manage any sort of work in any field or any sphere of life regardless of what that work is. These days Project Management is being influenced by Information Technology or IT as well. When it comes to the big projects of the industry it becomes easy to manage through the resources of IT. Starting from how to use knowledge and skills for a project to getting the project accomplished properly, tailoring the processes, the trends and the prospects, how IT is now an important part in project management also the types, patterns and other concepts related to project management has thoroughly been discussed here.**

Keywords—Project, Portfolio, Program, Project Management, PMP, PRINCE2

I. Introduction

This industrial talk titled as "The Importance and Trending of IT Project Management" conducted by Dr Goh Eg Su , *Senior Lecturer, School of Computing, UTM* with the guest speaker MOHD KHAIRUL REEZA RUSLAN, *Head of Project Management Office, Commerce Dot Com Sdn Bhd.* was held through Cisco Webex on 1st of December 2020 at 10 A.M. The speaker who is the head of project management in a renowned company and has led several big projects worth millions talked about "Project Management" and shed light on how IT is used in this case. Any work that is risky, consumes time, costs something, has a quality, creates scope and benefits people can be regarded as a project and applying knowledge, skills, techniques for a project is Project Management. It has got methodologies like Prince2 and PMP and is tailored with starting, planning, executing, monitoring and closing. The speaker also talks about the IT Project Management, its Importance and Trending which will be discussed in detail below.

II. IT Project Management

A. *The Importance of IT Project Management*

Within the industry, a project turns out to be a small part within a portfolio.

A project is a task which is unique on its own, carried out to achieve a specific goal. Several projects put together will contribute to an overall larger goal, called a program. Similarly, a few programs carried out will contribute to the largest of all: a portfolio.

By separating a large portfolio into several programs which further breaks down into projects, the tasks will break down to be much smaller and manageable individual tasks. With this, several different companies can manage their own assigned projects or even programs without arising conflicts with other involved companies. The companies will be able to put all their focus onto one goal, thus improving the quality of the outcome.

In the talk, an example of breaking down of a large portfolio down into individual projects is shown as follows:
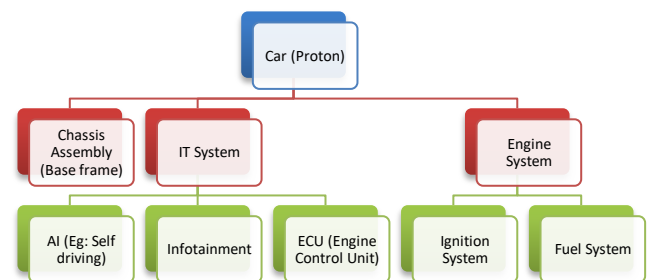
Car (Proton)

Chassis Assembly (Base frame) — IT System — Engine System

AI (Eg: Self driving) — Infotainment — ECU (Engine Control Unit) — Ignition System — Fuel System

Figure 1 Example of the breakdown of Portfolio into projects – Proton [4]

Project Management is a process in which appropriate knowledge, skills, techniques and tools are applied to project activities to ensure completion of project requirements.

One of the heavily emphasized project management methodology in the meeting is **PRINCE 2** from the UK [3]. There is also **PMP** project management methodology which is first applied to construction industries in the US. Project management is emphasized mostly in two industries: construction and IT, and it is mainly due to the following importance's:

- Projects usually involve heavy cost factor
- Early delivery of products may not be favored, as it may introduce unexpected loss and risk. One such instance given is storage problem and corrosion hazards emerged due to earlier delivery of cement by the suppliers in a construction project.
- To avoid disrupting the normal flow of existing operation in an organization. For instance, IT systems used in banking systems involves the calculation of interests and risks which involves a large amount of money, and cannot afford to have the operation disrupted.
- Healthcare IT systems involve human life, therefore requires careful project planning to avoid incidents and miscalculations.

To put briefly, the main point is to ensure that the 6 keys (Time, Quality, Scope, Risk, Benefit, Cost) are unaffected amidst project execution, and prevent unintended output and unexpected outcome.

The Project Process can be summarized into the following series of phases, which is flow lined and more easily followed and managed:
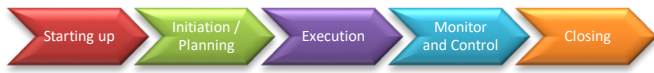
However, the project processes should be tailored or specialized to suit and adapt to the scale or nature of the project. It enables scaling down the process to a bare minimum, to an extent that the cost factor is minimized while the quality of outcome is still ensured. It is not necessary to implement everything according to the applied project process as it results in a larger cost due to more documentation work and time consumption.

B. *Trending of IT Project Management*

1. Gig Economy:

Project management, as different businesses, is not at this point carefully bound to the limits of an ordinary office. Because of various components including more noteworthy availability, changing corporate qualities and the ascent of the gig economy, digital and remote teams are more normal today than previous. The gig economy is a famous term for freelance or contract workers who take independent positions on-request and are frequently working different independent positions. As more work become contracted out, every part of leading project will be impacted, whether in the public, private or nonprofit sectors. Work will be structured differently.

2. Big Data:

Big data is a term that represents a large amount of data. Big data can be analyzed for insights that conduct to better decisions. Big Data helps any company to make new development openings and classifications of organizations that can consolidate and analyze industry information. These types of companies have a lot of data about their items and administrations, purchasers and providers, and the customers.

3. Artificial Intelligence (AI):

Artificial intelligence technology can soon aid in better decision making in project management. Artificial intelligence is an embedded structure that can manage enterprises without the need for manual work. AI algorithms potentially could calculate the best projects to take on, seleting the best fit decision to make, and even selecting the best people to be assigned to which project that suits.

4. Change management:

The goal of change management is to deploy changes to IT services in a way that minimizes the impact on business. Stay flexible. Project and situations changes may occur anytime and therefore, project managers must ensure the team is always be updated and ready to adapt for changes.

5. Method Melding:

Method melding is combining and utilizing multiple methodologies in a project, as what Mr Mohd Khairul Reeza Ruzlan had said in the talk:

Add a pinch of Agile, dust with a trace of Waterfall, and add an enormous bit of Scrum, and we have an advanced project.

Because of complex workplaces, Agile, Waterfall, and various methodologies are frequently organized into custom mixes under the project management.

6. Tools and Solutions:

Utilizing project management tools is a useful method to convey projects on schedule and coordinate tasks. It is a good approach to track progress and oversee time for significant project like budgets and deadlines. Especially now in the Covid-19 pandemic period, we mainly use online tools to communicate and collaborate with others.

7. Emotional Intelligence (EQ):

Emotional Intelligence is the most wanted skill for project management. This the ability to define and control our own emotions and the emotions of other people. Like Mr Mohd Khairul Reeza Ruzlan said:

IQ will get you hired, but EQ is the one that gets you promoted or determine your success

III. RELEVANT IT CAREERS

As stated, Project managers assume the lead part in arranging, executing, observing, controlling and shutting projects. They are responsible for the whole project opportunity, project group, assets, and the achievement or disappointment of the project. So, there are a few attributes to be a decent project manager.

Effective communication skills	The project management need a clear and effective communication skills. The good manager should know how can he communicate with his group member to put the expectation and the achievements which he wants to score in this project. So, he should have the ability to communicate effectively with his customers or group member. this will help to present good project
Strong leadership skills	Having good leadership is important for the manager of any project. Every manager must be able to lead his team in good way from the beginning to the end of his project he should have very strong strength to complete his project and score his achievements. He must motivate his team after every progress the team take in the project this will push the team to keep giving hard to present better project
Decision making skills	Being a manager make you think twice or more than that before taking you decision. Think about the result of your decision. Don't make anything effect on your decision you should think wisely about the benefits and consequences
Equipped with technical expertise	To be a good manager you must have good technical expertise, which know as hard skills. This skill help you in finishing your physical or digital missions. Ther are many technical expertise which used in many separate fields of science .nowadays many industries depend on workers who has good technical expertise
Stress management	One of the most important needs for manage the project is stress management. With the progress of the project, you will face many situations and accident, this will affect in your project if you didn't manage your stress. It is very important to keep calm all the time and always keep your concentration because losing it will affect on your project and on your team
Competency	Competence, knowing what should do is one of the most important things for the good project

	manager. A project manager should be competent throughout the whole course of the project, and not to easily give up upon facing the challenges encountered.
Understanding and caring	The manager must understand and caring for members of his group. He should be grateful for their help even it small part this is are few of the smallest thing which the group leader mast shows to his team. And this include understanding the needs of the project.

Table 1 Attributes of Project Manager

Finally, being a good project manager will have high salary offerings. In certain nations the compensation offered is $116,000 across all businesses, with most project managers acquiring somewhere in the range of $93,000 and $140,000.

IV. REFLECTIONS

SOH JUN WEI	I aspire to be a successful programmer and developer in the future which can contribute to the development of technologies of the country or even internationally. To achieve that, I must be able to achieve excellence in academics, including the current courses taken. By attending this talk, I learned the importance of project management, especially in large-scale projects. No project can end up successful if no proper project management action is taken. Therefore, I realized that the journey to becoming a successful programmer is a large project by itself, and I have to manage it well for me to achieve my dream. Therefore, from now on, I will plan carefully about my future as if it is a large-scale project that requires appropriate project management. With this, every action that I took will be considered thoroughly and discreetly and therefore the probability of success will be increased significantly.
YOUSSEF HISHAM KHAIRAT	My dream is to be a good developer to help improve programs and fix errors and gaps and to be one of the best people in the field of programming and to be useful to my mother country I learned from this talk how important project management and that some projects are destined to fail and the other is destined to succeed if we stick and work hard and work hard to be a good project manager and in the end our study trip is a project but it is explained to build yourself annotated to work in it and plan for every step you take It's one of the most important, if not the most important projects you'll ever run.
MIR TAMZID HASAN	I took this course of software engineering with a view to becoming an effective developer and serve in a tech giant company. From my very childhood I have been interested in computers, video games and gradually grew up as a software and technology enthusiast. Since then, I have cherished an intense desire of becoming a software engineer and work in a tech giant company and eventually build my own applications someday. The concept of Project Management is absolutely new to me. Understanding a project properly and accomplishing it by applying knowledge, skill and technique is undoubtedly a modern way. I believe I can be a successful software engineer once I am able to complete a

	project by managing all the aspects related to it accordingly. Project Management will impact specifically on how I will be able to run a project given to me understanding the needs and help me figure out how I shall execute. The world is evolving. It is witnessing changes every now and then. Especially when it comes to the Information Technology sector, evolution is prevalent every second. In order to become successful in this field I believe staying updated and focused to cope up with all these changes is the only improvement necessary for me to let my potential reach the peak
Md Samiul Hasan Sayad	I chose software engineering as my career to become a web developer in future and to help the development of technologies. I took this subject because I have been interested in computer and its software. From the industrial talk-2 video, I learned about the IT project management. It has a lot of stages to solve problems and get better solutions. Project management is the practice method required to fulfill a specific objective and achievement in several stages after a certain period of a predetermined period.

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