

عنوان البحث

Reduce Waste In Construction Projects by Using Tools

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مقدمة:

In construction projects numerous issues arise affecting the project's process as well as its progress that ultimately affect quality of the project. Construction projects are not only about to build the buildings correctly, but also an efficient management and execution of its constituent processes. As the construction projects need a high level of quality, these must be done with carefully planned management and controlled process. Various process tools and techniques are used to minimize the issues from beginning to the end of projects. Six Sigma has many tools that help to increase the quality of process. We use aforementioned tools in a construction project management: Value Stream Mapping, MUDA, Kaizen, JIT and GEMBA. Value Stream Mapping is one of the quality techniques used to find all the value adding and non-value adding activities in a process from raw materials to end-customer. MUDA is used to the activities without adding value for the projects. Kaizen is changed for betterment or improvement. Using JIT to schedule the steps of the project to be on time. GEMBA is one of the best tools used in an actual place, used for shop floor. In this research, these tools and techniques are employed and compared to help improve the construction process in order to avoid poor quality, waste time, waste cost and wasted effort

مشكلة الدراسة:

This research is trying to solve three main issues by using some tools to solve all issues on beginning so it can avoid any effective problems in the future.

First of all, waste of time one of the main problems on the project so that is affecting the other issues. for example, late submitted phases that means more operation working, also it effects the quality because late submitted means finish the working the important thing even with low quality because that put all worker in the project under pressure.

Second, waste of cost is one of the important things in the project. Managing cost needs some department to avoid any over cost project.

Third, waste of quality is affecting by cost and time. Quality needs some tools is applying to avoid effort in quality and get all output result perfect. Finally, waste of time, cost and quality are working in parallel so one of them effects the other. Measurement of all these must be carefully.

أهمية الدراسة:

In this research we will find all our result and data to find the important problems. Find many case studies on the past construction projects to see all what we can

improve and what already improved. This study will provide how truth tools we apply. Cost, quality and time are the most important and main important of the project, how we can avoid these is that what we will find in this research. All types of tools we already mentioned on the beginning of this project that we will use.

أهداف الدراسة:

Many goals of this research we will find, one of them is what is the tool we will depends on waste case. For example, waste of time we use some tools for time waste such as supply chain late material arrived on

project location so how we avoid that. Poor quality needs to improve and this is one of achievement goals we need. Cost waste reduced better for stakeholder of the project. All these goals will find in this research.

تساؤلات الدراسة

In this research we look if the tools will use in this research solve the issues of time, quality and cost when it will apply and how we can use these tools for each section. Some questions are coming when just try to apply these tools.

فروض الدراسة:

Six Sigma has many tools that help to increase the quality of process. We use aforementioned tools in a construction project management: Value Stream Mapping, MUDA, Kaizen, JIT and GEMBA. Value Stream Mapping is one of the quality techniques used to find all the value adding and non-value adding activities in a process from raw materials to end-customer. MUDA is used to the activities without adding value for the projects. Kaizen is changed for betterment or improvement.

الدراسات السابقة:

Many projects I already studied them and they already apply the tools to their projects and has been improved. Also, I work in some construction project and I apply that tools in my working and these reduce time, quality and cost.

المنطلقات النظرية للدراسة:

In this research we have some truth construction project apply all tools such as Six Sigma, Muda, Just In Time, Value Stream Mapping, Fish bone diagram, Kaizen Etc. all these tools we use them to avoid waste.

المنهجية وطرق البحث:

construction project management: Value Stream Mapping, MUDA, Kaizen, JIT and GEMBA. Value Stream Mapping is one of the quality techniques used to find all the value adding and non-value adding activities in a process from raw materials to end-customer. MUDA is used to the activities without adding value for the projects. Kaizen is changed for betterment or improvement. Using JIT to schedule the steps of the project to be on time. GEMBA is one of the best tools used in an actual place, used for shop floor. In this research, these tools and techniques are employed and compared to help improve the construction process in order to avoid poor quality, waste time, waste cost and wasted effort

أدوات الدراسة :

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حدود الدراسة :

All case studies that apply the tools and success with the project in the world. Some of project is already I work with and some it is not working with.

المراجع:

I will apply all the resource I will use in this research when I will be done it.