

## الآية

بسم الله الرحمن الرحيم

قُلْ أَعْمَلُوا فَسَيَرَى اللَّهُ عَمَلَكُمْ وَرَسُولُهُ  
وَالْمُؤْمِنُونَ وَسَذَرَهُونَ إِلَى عَالِمِ الْغَيْبِ  
وَالشَّهَادَةِ فَيُبَيِّنُكُمْ بِمَا كُنْدُمْ تَعْمَلُونَ) - التوبة الآية 105

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## ABSTRACT

Reduce the rework in construction is one of the active ingredients to improve the performance of construction projects in terms of productivity and costs, project scheduling , quality and safety . So with the existence of programs to reduce the rework in construction to meet this challenge. However, we need to the presence of studies for analysis and continuous improvement to reduce construction rework in this research we reviewed some charts that show the etiology main lead to rework and its impact on productivity and performance in construction projects in Sudan and that access to the scheme can find out the main causes for the rework, as well as its impact on productivity and performance. Some appropriate solutions to reduce re- work to improve the productivity and performance of construction projects in Sudan. We have arranged a contribution to the etiology of most contribution to the least through a case study for the 30 construction projects in Khartoum, Sudan, where the questionnaire included three axes 1/ personal information 2/ rework causes 3/ appropriate solution. The results were that most of them had weaknesses and strengths where most of them have a problem in the planning and scheduling of projects which has a big role in the construction rework. As well as the most of them take preventive measures to reduce rework, but not sufficiently so we made some solutions that will help to reduce these reasons.

## المستخلص

تقليل اعادة الاعمال الانشائية واحدة من العناصر الفعالة لتحسين اداء المشاريع الانشائية من ناحية الانتاجية والتكاليف وجدولة المشاريع وجودتها وسلامتها. ذلك مع وجود برامج لتقدير اعادة الاعمال الانشائية لمواجهة هذا التحدي. وبالرغم من ذلك نحن بحاجة لوجود دراسات للتحليل والتحسين المستمر للتقليل من اعادة الاعمال في هذا البحث استعرضنا بعض المخططات التي تبين المسبيبات الرئيسية التي تؤدي الى اعادة الاعمال وأثرها على انتاجية وادائية مشاريع التشييد في السودان وذلك بالوصول لمخطط يمكن من معرفة المسبيبات الرئيسية لـ اعادة الاعمال وكذلك اثرها على الانتاجية والاداء. وتم إستعراض بعض الحلول المناسبة للحد من اعادة الاعمال لتحسين الانتاجية واداء مشاريع التشييد في السودان. قمنا بترتيب المسبيبات اكثراً مساهمة في اعادة الاعمال الى اقلها وذلك عن طريق دراسة حالة لـ 30 مشروع تشييد في الخرطوم السودان حيث تضمنت استماراة الاستبيان ثلاثة محاور ملحوظات الشخصية محور مسبيبات اعادة الاعمال ومحور الحلول المتبعة لتقاضي اعادة الاعمال. كذلك تم إستعراض بعض الحلول للحد من اعادة الاعمال ومعرفة نسب تطبيقها في هذه الواقع وكانت النتائج ان معظم المستجيبين لهم نقاط ضعف ونقاط قوة حيث ان معظم المستجيبين لديهم مشكلة في تحديد وجدولة المشاريع مما كان له دور كبير في اعادة الاعمال. كذلك اغلب المستجيبين يتخذون تدابير وقائية للحد من اعادة الاعمال ولكن ليس بالقدر الكافي حيث قدمنا بعض الحلول التي تساعده للتقليل من هذه الاسباب.

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