

DEDICATION

To my Parents, my sisters my brothers,

And to my small Family

ACKNOWLEDGEMENTS

I am grateful and sincerely thankful to my supervisor: Prof: Galal Abdalla Ali

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ABSTRACT

The construction sector has developed significantly both at the level of procedures and implementation techniques, or on the level of utilization of modern technology in construction industry. These modern methods and techniques transferred from industrial countries contributed significantly to facilitate the construction process from design, implementation and performance follow-up. Thus, it was necessary to study the effect of modern techniques on road construction and the quality of the finished products. Furthermore, it was also important to investigate the role of advances in construction industry on time saving and reduction of effort while maintaining the required quality.

The primary purpose of this study is to investigate what is new modern in road construction in terms of materials, mechanisms and their impact on improved quality. This research also includes the factors influencing quality control as well as productivity, concepts. A questionnaire was developed and distributed among road construction contractors and consulting companies. Analysis and evaluation of the results of the questionnaire showed that using advanced technology is important factor to improve quality and productivity. Furthermore, that most of the companies are using modern equipment and techniques. They also have posses the potentiality of upgrade the system of construction works.

تجريد

إن قطاع التشييد شهد تطوراً ملحوظاً سواء على مستوى تقنيات التنفيذ ووسائله أو على مستوى الاستفادة من المنتجات الحديثة في مجال التشييد مما تنتجه الدول المتقدمة من مواد واليات حديثة ساهمت بقدر كبير في تسهيل العمليات الانشائية من تصميم وتنفيذ ومتابعة لذلك كان لابد من معرفة ما اضافته التقنيات الحديثة لصناعة التشييد وما أثرها علي جودة تنفيذ الاعمال مما احدثته من سهولة في القيام بأعمال التشييد المختلفة من حيث تقليل الزمن والجهد مع الحفاظ علي الجودة المطلوبة.

الغرض الأساسي من هذه الدراسة هو معرفة ما الجديد الحديث في تشييد الطرق من حيث المواد والآليات وأثرها في تحسين الجودة حيث اشتمل البحث على العوامل المؤثرة علي ضبط الجودة وكذلك الإنتاجية مفاهيمها وطرق قياسها.

قام الباحث بتوزيع استبيان على مجموعه من الشركات العاملة في تشييد الطرق وبعد التحليل تم الوصول الي ان معظم الشركات العاملة في تشييد الطرق في السودان هي شركات خاصة ذات امكانيات كبيرة ومواكبه للتطور الذي حدث في صناعة التشييد حيث تمتلك اليات حديثه تمكنها من القيام بأعمالها بكفاءة وجوده عالية كما تقوم بجميع العمليات الخاصة بضبط الجودة للمواد المستخدمة في تنفيذ الاعمال.

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