سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

سامية محمد مصطفى

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

سامية محمد مصطفى

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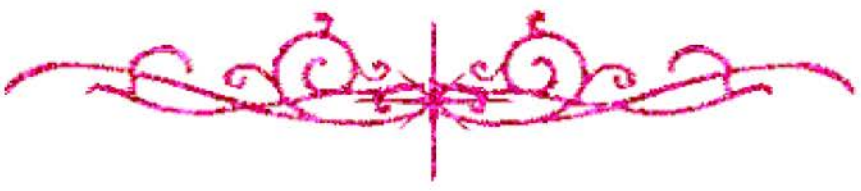
بعض الوثائق الأصلية تالفة



سامية محمد مصطفى

شبكة المعلومات الجامعية

بالرسالة صفحات لم ترد بالأصل

REENGINEERING CONSTRUCTION ORGANIZATIONS USING THE CONCEPT OF BUSINESS PROCESS REENGINEERING

By

Eng. EHAB SHEHATA SUBHY ABD ALLAH

A Thesis Submitted to the

Faculty of Engineering at Cairo University

In Partial fulfillment of the

Requirements for the Degree of

MASTER of SCIENCE

In

CIVIL ENGINEERING (STRUCTURE)

Under the Supervision of

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Chapter (1)
INTRODUCTION

Chapter 1

INTRODUCTION

The need for change has become an imperative matter in such turbulent business environment of today. Situations and circumstances outside any organization involve many social, technological, or business imperatives that affect what happen within it and may lead to great changes within its internal operations. On the other hand, as the organization grows to be larger and its operations become more complex, the need for change arises as an essential way to systemize and streamline complex processes.

"Reengineering" is the common expression when change takes place on a continuing basis but "Engineering" is the suitable one when change takes place for the first time (Daniel Morris and Joel Brandon 1993). Business Process Reengineering (BPR) is a modern metaphor that involves tools required to describe current state of organization then to implement changes suggested by reengineering team.

1-1 Problem statement:

Applications of Business Process Reengineering concept are still few and the majority of these applications were carried out within industrial organizations where standard products can be found. In construction industry, the need for activities related to reengineering business processes must become more and more essential where products of that industry depend on a huge number of complex and ramified business processes. In addition, products of construction industry involve great variations in quality and specifications based on customer's requirements that leads to continuous improvements in business processes to meet such requirements. Applications carried out within construction or contracting organization to reengineer business processes are scarce and were performed within small organizations of low level of

complexity. It needs more efforts, more time, and well defined sequential steps to handle a large construction organization that involves a huge number of operations and processes. These types of organizations often operate in multi levels and over a large-scale area that may lead to organizational structure fragmentation. Reengineering concept plays the most important role to constrict the gab between various levels and departments within the large organization.

On the other hand, managers interested in automating their business process to do all work on computers always face challenges as they search for a comprehensive model that overview their organizations as whole. Business Process Reengineering provide such managers with graphical tools -not long written documents- used to build a model of business.

1-2 Objectives of research:

Objectives of research here are to provide managers of large construction or contracting organizations that involve huge number of operations and processes with sequential steps that enable them to reengineer their business. These sequential are the main components of three phases: preliminary study phase, analysis phase, and finally reengineering phase. Preliminary study phase involves creating a vision for the organization, gaining commitment for change, and enlisting help to achieve such change. Analysis phase involves identifying current state of organization, looking at the structure of the organization, identifying inputs, outputs, and business process of the organization, and finally analyzing problems detected at this stage. Finally, the reengineering phase begins with identifying possible efforts to reengineer the organization and ends with implementing changes expected to be the way hoped for improving performance of organization.

The second objective is to use a graphical tool "Business Activity Map" that efficiently used even in large organizations to formalize day-to-day

operations instead of long written documents. Business Activity Map acts as an essential background in converting manual work to be automated.

The third one is to apply reengineering procedures using Business Process Reengineering concept to systemize the operations of a large organization in Egypt.

The main deliverable of research is an application of Business Process Reengineering concept in Egyptian construction field. The study was applied on one of the large national companies for building and construction called EGYCO. The company is operating in the field of civil, marine, and electro-mechanical construction and its operations involve high degrees of complexity. Building on reengineering sequential steps, operations within the organization were systemized with getting help of its managers.

Creating a comprehensive model that describe work activity flow and functional connection lines between departments at each level within the organization was the main effort to systemize and streamline internal operations of organization. Missing activities and functional connection lines were detected during creating the model and hence, they were established consequently.

Informal communications and correspondences in any organization act as challenges that may destroy any reengineering efforts so, activation of formal correspondences was an essential procedure required to maintain good operations monitoring and improvement on a continuing basis.

1-3 Structure of thesis:

In chapter "1" an introduction is presented. Problem statement, objectives of research, and structure of thesis are discussed.