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**Using an Optimum Usage Measuring Criteria to
Evaluate the Ministry of Petroleum's
Information System**

A thesis submitted as partial fulfillment MSc degree in information
system

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Abstract

Organizations in general use a variety systems depending on their needs. These systems have different levels of quality, which directly affect the organizations performance. This leads to the need for measuring information system quality.

Many criteria for measuring information system are proposed most of suggest multiple factors to be measured.

This research focus on measuring system use, which have factors such as effectiveness, efficiency, productivity, satisfaction, learnability.

A system use criteria was applied to the information system deployed by the Ministry of Petroleum in Khartoum. A well designed questionnaire was use as a tool to measure the different system use factors.

After collecting and analyzing the data the results show that the performance of the system is v.effictive or high.

المستخلص

تستخدم المؤسسات عموما انواع مختلفة من انظمة المعلومات تبعا لاحتياجها وذلك ادى الى اختلاف في مستوي جودة هذه الانظمة ، وهذا الاختلاف يؤثر سلبا وبشكل مباشر على اداء هذه المؤسسات، مما دعى الى ضرورة البحث عن طريقة لقياس مدى كفاءة وجودة النظم المستخدمة في المؤسسات المختلفة .

يوجد العديد من الاليات التي تستخدم لقياس مدى كفاءة النظم عموما وهذه الاليات تعتمد على عدد من العوامل الدقيقة بداخلها لتحدد بدقة الناتج النهائي من عملية القياس هذه.

عمل هذا البحث على دراسة الاليات المختلفة المستخدمة في قياس مدى كفاءة النظم بشكل عام ، وركز بالتحديد على احدها وهو الاستخدام (System use) والذي بدوره يحتوي على عدد من المعايير مثل : الفعالية (Effectiveness)، الكفاءة (Efficiency)، الانتاجية (Productivity)، مدى الرضا (Satisfaction) وامكانية التعلم (Learnability).

تم تطبيق معايير الاستخدام المختلفة على نظام المعلومات الخاص بوزارة النفط ولاية الخرطوم ، وذلك من خلال توزيع عدد من الاستبيانات التي تحتوي اسئلة تقييم استخدام النظام تبعا لكل معيار.

وقد خلص هذا البحث بعد جمع وتحليل البيانات الى ان النظام المعمول به في وزارة النفط بولاية الخرطوم هو نظام فعال او يعمل بمستوي عالى.

1.1 Introduction

The revolution of information systems appears clearly in latest years, lead me to study more about how to improve the work of systems or to ensure its proper and good work.

Thus my research focus on how to measure information systems in general and then use 'system usage' criteria as one of the important measurement tools to evaluate the system in ministry of petroleum

Measuring the system is a very important aspect, to do that there are different criteria's that made to measure and to compare information systems such as system quality, information quality, system use, user satisfaction, Individual impact , Organizational impact.

This study focus in one of the most important measurement which are system use which means: the extent at which staff and customers utilize the capabilities of an information system.

1.2 Research Problem

Measuring the success of information systems is a major concern of organizations today. What to measure and how to measure are the major research questions in this field.

1.3 Research Objectives

The aim of this research is:

- To measure the system usage of information system in Ministry of Petroleum to evaluate its system.
- To show the final result of measuring information system deployed in Ministry of Petroleum.

1.4 Research Methodology

This research uses an analytical approach that analyses a questionnaire data to derive results and conclusion.

1.5 Research Organization

This research consists of five chapters in Chapter two discuss information system idea and all criteria are used to measure it. Chapter three focus more on usability (system use) criteria as one of the important criteria use to measure information system. Chapter four applying optimized method for measuring Ministry of Petroleum's information system usage. Chapter five conclusion and recommendations for future work.

