

University of Sciences and Technology

Faculty of Computer Sciences

Faculty of Post Graduate

Thesis Submitted in-Partial Fulfillment of the Requirement of the
Degree of Master in Information System



Measuring System Quality For Sudanese Currency Printing Press



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January 2014

Abstract

The quality of systems is a prerequisite and important for systems analysts and designers, because it demonstrates the reliability of the product and its relevance to the design criteria standard, also demonstrates the suitability of the product for the basic requirements agreed, and its ability to provide system services in an easy and appropriate to the needs of the user.

To achieve the highest level of quality, companies and researchers develop models for measuring and evaluating the quality of information systems. Among these solutions, they set models to measure system quality, either in terms of design, or in terms of the actual performance of the system.

In this research, ISO 9126 quality model was used to evaluate The Central Cheques Issuing System (CCIS) developed in Sudanese Currency Printing Press Ltd. (SCPP) the link between it and many Sudanese banks in Sudan to serve as a case study really.

To assess the quality of the system a questionnaire that based on the characteristics of the ISO 9126 model was designed. The result of analysis of a questionnaire data shows that the information system success about 66%.

المستخلص

تعتبر جودة البرمجيات مطلباً أساسياً ومهماً لمصممي ومحلي النظم البرمجية ومستخدميها، إذ إنها تُبرز مدى موثوقية المنتج وملاءمته لمعايير التصميم القياسية، كما تُبرز أيضاً مدى ملاءمة المنتج للمتطلبات الأساسية المتفق عليها، وقدرته على تقديم الخدمات البرمجية بطريقة سهلة وملائمة لحاجات المستخدم.

ولتحقيق أعلى مستوى من الجودة، قامت الشركات ومراكز الأبحاث على ابتكار نماذج تختبر جودة المنتج البرمجي، ومن بين هذه الحلول وضع نماذج لقياس جودة البرمجيات، سواءً من ناحية التصميم، أو من ناحية الأداء الفعلي للبرنامج.

في هذا البحث تم اختيار نموذج الايزو 9126 لجودة النظم لتقييم نظام " إصدار الشيكات المركزي" الموجود في شركة مطابع السودان للعملة المحدودة.

ولتقييم جودة هذا النظام تم تصميم استبيان أستناداً لخصائص نموذج الايزو 9126 لجودة النظم. وأشارت نتائج تحليل بيانات الاستبيان يظهر أن نجاح نظام المعلومات حوالي 66 بالمائة.



1.1 Introduction

In this research will choose a quality model for software product between several quality models founded, and evaluate the software by this chosen model. Each of characteristics or factors inside this quality model was evaluated independently.

1.2 Research Problem

Evaluation of information system quality is a substantial requirement in building productive, efficient, effective and usable systems. The idea of this research is to evaluate the quality of the information system used.

1.3 Objectives

The objective of this thesis is:

- To evaluate the quality of Sudanese Currency Printing Press (SCPP) information system.
- To determine the success factors of the SCPP information system.

1.4 Tools

For evaluate the quality of the system and to determine the success factors, a design questionnaire based on the characteristics of quality model was used, every question is associated with one of characteristic in quality model. The answers may be one of six options: (1) Strongly Disagree, (2) Disagree, (3) Neither, (4) Strongly Agree, (5) Agree and (6) Not Applicable.

1.5 Scope

This case study is limited to a standalone application “Central Cheques Issuing System” deployed in Sudanese Currency Printing Press associated with the banks in Sudan.

1.6 Organization

The research consists of five chapters. Chapter two; discuss the criteria for measuring information success with six main dimensions of success namely: *System quality, Information quality, System use, User satisfaction, Individual Impact* and *Organizational Impact*.

Chapter three; addressed System Quality, presents system quality models and then presents a comparison of quality models found in literature.

Chapter four; propose a software quality model to be applied to CCIS, and the analysis of the data collected using a questionnaire and the results.

Finally, Chapter five includes conclusions and recommendation for future work.

