

**SUDAN UNIVERSITY OF SCIENCE
AND TECHNOLOGY**

COLLEGE OF GRADUATE STUDIES



**The Impact of Activity-Based Costing System Application on
Enhancing Company's Financial Performance- A Field Study
of Manufacturing Industries Sector**

أثر تطبيق نظام التكلفة على أساس النشاط في تحسين الأداء المالي للشركة- دراسة
ميدانية على قطاع الصناعات التحويلية

**A thesis presented in fulfillment for the requirements of a Ph.D. Degree
in cost and management accounting**

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بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

الاستهلال

قال تعالى:

وَمِنَ النَّاسِ وَالدَّوَابِّ وَأَلْأَنْعَامِ
مُخْتَلِفٌ أَلْوَانُهُ كَذَلِكَ إِنَّمَا يَخْشَى اللَّهَ
مِنْ عِبَادِهِ الْعُلَمَاءُ إِنَّ اللَّهَ عَزِيزٌ
غَفُورٌ {

(سورة فاطر - الآية 28)

DEDICATION

To my great parents,

My sisters, brothers

And my beloved kid

““*Sohieb*””

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Above all, I thank my God for everything he has given me and success me in all stages of my education.

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المستخلص

تناولت الدراسة أثر تطبيق نظام التكلفة على اساس النشاط (ABC) على تحسين الأداء المالى للشركة (ABC) بالتطبيق على عينة من قطاع الشركات الصناعية التحويلية. تمثلت مشكلة الدراسة فى أن " على الرغم من فوائد نظام (ABC) على الانظمة التقليدية للتكاليف، فان نتائج الدراسات السابقة الحديثة أوضحت أن معظم ممارسات نظام ABC ما زالت فى الدول المتقدمة ، وان عدد محدود فى الدول النامية خاصة على مستوى الدول الأفريقية. بشكل خاص فى السودان معظم الشركات الصناعية ما زالت تستخدم نفس الانظمة التقليدية التى تعطى معلومات غير دقيقة عن تكلفة المنتج، وأن نظام ABC غير مطبق بكثير من الشركات حتى الآن. هذا يعتبر أحد المعوقات الرئيسية التى تمنع الأداء المالى الأفضل للشركة. لذلك الشركات الصناعية فى بيئة التنافسية الجديدة تحتاج الى تطبيق نظام تكاليف متطور مثل نظام ABC لتحسين دقة معلومات التكاليف التى تعطى فرص مهمة لتحسين الأداء المالى. لذلك هدفت الدراسة إلى بحث أثر تطبيق نظام ABC على تحسين الأداء من خلال فحص اثر العوامل الاربعة (هيكل التكلفة، أهمية معلومات التكاليف، تعدد وتنوع المنتجات، والمنافسة) المؤثرة على تطبيق نظام ABC بالتطبيق على عينة قسدية من قطاع الشركات الصناعية التحويلية السودانية. كما هدفت الدراسة الى تحديد الصعوبات والمشاكل التى تواجه تطبيق نظام ABC بالشركات الصناعية السودانية.

تمثلت أهمية الدراسة فى المساهمة البحثية والمعرفية فى مجال تطبيق نظام (ABC). بالإضافة الى حاجة القطاع الصناعى الى نظام تكاليف حديثة لتوفير معلومات أكثر دقة التى تحسن اتخاذ القرارات، تركز انتباه المدراء، وتحسن البصائر نحو النشاطات التى لها الفرص الأكبر للتحسين والمساهمة إلى الربحية.

لتحقيق أهداف الدراسة ، طورت الدراسة الفرضيات التالية:

الفرضية الأولى: الشركات الصناعية السودانية لا تطبق نظام (ABC)

الفرضية الثانية: هناك علاقة ايجابية بين العوامل المؤثرة (هيكل التكلفة، أهمية معلومات التكاليف، تعدد وتنوع المنتجات، والمنافسة) وتطبيق نظام (ABC) بالشركات الصناعية السودانية.

الفرضية الثالثة: هناك علاقة ايجابية بين تطبيق نظام (ABC) وتحسين الاداء بالشركات الصناعية السودانية.

الفرضية الرابعة: هناك صعوبات ومشاكل تواجه تطبيق نظام (ABC) بالشركات الصناعية السودانية.

استخدمت الدراسة المنهج الوصفي التحليلي، نوعين من البيانات تم جمعها بيانات كمية ونوعية. البيانات الكمية تم جمعها من السجلات المحاسبية (بيانات تكاليف) للشركات عينة الدراسة، وتم تحليلها بالاعتماد على نموذج Cooper لتطبيق نظام التكلفة على اساس النشاط(ABC). أما البيانات النوعية تم جمعها باستخدام اسلوب المقابلة الشخصية.

نتائج الدراسة أظهرت ان الشركات الصناعية لا تستخدم نظام (ABC) وتعتمد بشكل اساسي على نظم التكاليف التقليدية بدلاً عن الحديثة، كما أظهرت أن تطبيق نظام (ABC) يحدد تكلفة الانتاج بصورة دقيقة ويخفض التكلفة ويزيد الأرباح الأمر الذي أثر ايجاباً على تحسين أداء الشركات. بالإضافة الى ذلك أن نظام (ABC) يعطى معلومات تفصيلية عن تكاليف الانشطة ومحركات التكلفة الأمر الذي يعطى فرص جيدة لتحسين الانشطة والعمليات مما يؤثر ايجاباً على تحسين أداء الشركة ككل. فيما يخص العوامل التي تؤثر على تبنى نظام التكلفة على اساس النشاط(ABC)، فقد توصلت الدراسة الى ان العوامل الثلاثة (هيكل التكلفة، أهمية معلومات التكاليف، والمنافسة) لها أثر ايجابي على تطبيق نظام(ABC)، بينما تعدد وتنوع المنتجات ليس له أثر على تطبيق نظام(ABC). كما أظهرت النتائج ان قلة الموارد البشرية، ارتفاع التكاليف، وصعوبة التطبيق والدعم غير الكافي من الادارة العليا، كثرة عمل المحاسب الادارى، الرضاء عن أنظمة التكاليف الحالية، مقاومة الادارة والموظفين للتغير هي من أهم المشاكل والصعوبات التي تواجه تطبيق نظام (ABC) بالشركات الصناعية عينة الدراسة.

أهم التوصيات التي توصلت لها الدراسة هي: الحاجة الى تطبيق نظام(ABC) للحصول على معلومات تكلفة دقيقة بالشركات الصناعية السودانية، تدريب الموظفين لتحسين مهاراتهم وخبراتهم فيما يخص نظام (ABC) لتلبية متطلبات العمل فى بيئة العمل الجديدة، تفعيل دور نظم التكاليف الحديثة مثل نظام (ABC) أكثر بالجامعات والمعاهد التعليمية العليا لرفع مستوى الوعى.

Abstract

This study examines the impact of application of activity based costing (ABC) on enhancing company financial performance in a sample of Sudanese manufacturing companies.

The main problem of this study is “despite of the benefits of ABC system over traditional costing systems, a review of recent literature of activity (ABC) revealed that the practice of ABC system still was done in developed countries and very little has been made in developing countries, especially in Africa context. More specifically, in the Sudan, recent literature revealed that a majority of Sudanese manufacturing companies (SMCs) still using the same traditional costing systems which provide inaccurate product cost information; and ABC system is not being applied by many companies yet. This was one of the major obstacles preventing better business financial performance. So, SMCs in new competitive environment need to apply more sophisticated system such as ABC system to enhance the accuracy of cost information which provides significant opportunities for enhancing financial performance ”. Thus, the study aims to investigate the impact of applying ABC system on enhancing financial performance by examining some influential factors (cost structure, importance of cost information, product diversity, and competition) which influence the application of ABC system. In addition, the study looks to identify the difficulties and problems associated with application and non-application of ABC system. To achieve the study objectives the following hypotheses were developed:

H1: SMCs do not apply ABC system.

H2: There is a positive relationship between some influential factors (cost structure, importance of cost information, product diversity and competition) and application of ABC system by SMCs

H3: There is a positive relationship between application of ABC

system and enhancement in financial performance

H4: There are problems and difficulties associated with application and non-application of ABC system by SMCs.

The study used a descriptive analytical method to analyzed Quantitative and Qualitative data. Quantitative data were collected from archive accounting data (cost sheets) for the year 2012. Quantitative data analyzed based on “Cooper’ model” to apply ABC system. Qualitative data were collected by using semi-structured interview for the study’s sample.

The study revealed the following findings: (a) Activity based costing (ABC) is not being applied currently by SMCs; a majority of manufacturing companies in Sudan apply traditional cost and management accounting systems such as absorption costing, budget, and break even point analysis rather than modern systems such as Activity based costing; (b) the application of ABC system on SMCs determined product cost more accurately which enhanced financial performance through reduced cost and increased profit. In addition, ABC system identified details information about activities costs and cost drivers which provide significant opportunities for improving activities and processes; (c) the influential factors (cost structure, importance of cost information and competition) have positive impact on the adoption of ABC system among SMCs. whereas, product diversity has not a positive relationship with application of ABC system. (d) The main difficulties with ABC adoption among SMCs are: Lack of adequate resources (ABC skills & ABC knowledge); High costs (including cost of IT) of ABC implementation; Complexity nature of ABC adoption; insufficient support from top management; Increased workload of cost/ management accountants; Satisfaction with current systems; and Resistance to change by the management/ employees.

The study reached to the following recommendations: (a) there is a great need for adopting and implementing ABC system to provide more accurate cost information by Sudanese manufacturing companies; (b) train employees with courses to enhance their skills and experience in dimensions of activity based costing to meet the work requirements in the new business environment; (c) and activate the role of the modern costing systems such as activity based costing more by universities and high educational institutes to raise the level of awareness.

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